





# course catalog 2020-21













# **hio** Department of Higher Education

Mike DeWine, Governor Randy Gardner, Chancellor

## Welcome to Stark State College and the University System of Ohio

Access to Ohio's state-assisted colleges must be assured for every person who wants and can benefit from higher education. Stark State College cordially welcomes anyone who wishes to receive a higher education.

According to Section 3345.06 of the Ohio Revised Code, "A graduate of the twelfth grade should be entitled to admission without examination to any college or university which is supported wholly or in part by the state."

Open admission carries with it the full weight of equal opportunity for all, which means the College must make every effort to be sensitive and responsive to the needs of prospective students. The open admission policy allows a student to enroll in the College, but not necessarily in a specific degree-granting program.

Normal admission to the College is open to anyone who is a high school graduate or the equivalent, completes the enrollment procedures and pays the fees for admission.

This is exclusive of academic record or placement testing results. This open door policy does not deny specific academic departments the right to require preliminary training or talent.

Students who do not meet specific program requirements upon admission to the College may be required to satisfactorily complete such requirements before admission into a specific program.

NOTE: Stark State College reserves the right to make changes in offerings, requirements and regulations subsequent to the publication of the catalog. A student accepted into a specific associate degree, one-year certificate, or career enhancement certificate program, and who is completing the coursework on a part-time or full-time basis after a lapse of years, should seek advising from the appropriate department chair due to possible changes to the requirements.

Stark State College is committed to equal opportunity for all and does not discriminate on the basis of race, color, religion, sex, gender, national origin, military status, pregnancy, disability, age, genetic information or sexual orientation. For inquiries regarding the College's non-discrimination policies, please contact:

Title IX - Coordinator, Emergency Planning & Security, Diana Tsenekos at 330-494-6170 ext. 4424 Section 504 & Title VI - Dean of Student Success, Fedearia Nicholson-Sweval , PhD at 330-494-6170, Ext. 4677

6200 Frank Ave. NW | North Canton, OH 44720-7299 330-494-6170 | 800-79-STARK

For most current class schedule: www.starkstate.edu



#### Administrative Officers

#### Para M. Jones, PhD

President, Stark State College

#### Lada Gibson-Shreve, PhD

Provost and Chief Academic Officer

#### Thomas A. Chiappini

Vice President for Business and Finance

#### Stephanie M. Sutton, EdD

Vice President for Enrollment Management

#### Marisa Rohn

Vice President of Advancement, Human Resources and Strategic Partnerships and Executive Director of Stark State College Foundation

#### VISION STATEMENT

Stark State College aspires to be Ohio's leading community college in fostering student success and community prosperity through innovation, responsiveness, and partnerships.

### Board of Trustees

#### Alice C. Stephens

Chair

#### **Jeffery A. Walters**

Vice Chair

Jerry Gilin Karen C. Lefton, Esq. Christopher J. Maurer Harun Rashid Elaine M. Russell Reolfi Fonda P. Williams

#### Mission Statement

Stark State College positively impacts the life of each student and our communities by providing access to high-quality, relevant, and affordable education.

#### GENERAL LEARNING OUTCOMES

#### PURPOSE STATEMENT

General education provides students with a breadth of knowledge and capacity for lifelong learning. It stretches students' minds, broadens their experiences, and develops skills to adapt to changing environments. General education prepares students with the skills to communicate effectively, problem solve, analyze, locate and gather information, and think critically and logically. It teaches students to understand and appreciate diversity and its interrelationships, sustainability, as well as community engagement and informed citizenship. Students are taught personal integrity, social responsibility, and the interpersonal skills needed to succeed in a professional environment.

Our general education philosophy is embedded in our mission and vision and is supported by our core values. These core values serve to emphasize our commitment to our students, to learning, to shared responsibility, and to the continuous improvement of the education we offer. We work collaboratively to create a campus culture that is academically challenging and emotionally supportive.

## EFFECTIVE COMMUNICATION (WRITTEN, ORAL, READING, AND LISTENING)

- · Organize and develop ideas effectively.
- Present ideas in an appropriate, mechanically and grammatically correct, professional style.
- Follow a standardized documentation format.

## QUANTITATIVE LITERACY (INCLUDES COMPUTATIONAL SKILLS)

- Determine a solution strategy and set up the problem with the pertinent information.
- Solve the problem using the appropriate data, the mathematical operations (symbols and formulas), and the appropriate technology (such as calculators and computers) as needed.
- Analyze and interpret the results for accuracy and reasonableness and explain the results using such tools as graphs, charts, and tables as needed.

#### INFORMATION LITERACY SKILLS

- Locate, evaluate, and use effectively the needed information.
- Manipulate current software and hardware to access and communicate information appropriately.
- Understand copyright rules and the ethics of extracting, sharing, and citing source information.

#### **CRITICAL THINKING SKILLS**

- Understand and interpret data by analyzing and synthesizing information.
- Challenge assumptions and draw informed and logical conclusions.
- Test conclusions against relevant criteria and standards while considering practical and ethical implications.

#### **GLOBAL AND DIVERSITY AWARENESS**

- Demonstrate appreciation and respect for individuals and groups and use effective interpersonal and collaboration skills.
- Demonstrate awareness of the interdependence of factors of diversity: culture, history, sexual orientation, psychological functioning, education, economics, environment, geography, language, politics, age, gender, ethnic heritage, physical challenges, social class, social skills, and religion.

#### CIVIC, PROFESSIONAL, AND ETHICAL RESPONSIBILITY

- Demonstrate personal integrity and social responsibility consistent with ethics, individual rights, principles of sustainability, and civility in a democratic society.
- Accept responsibility for and act in a manner that reflects the values of the communities and organizations.
- · Relate to others in a respectful, courteous, and professional manner.

# STARK STATE COLLEGE PROFILE

Stark State College is committed to preparing our students for career success in a competitive, sophisticated economy. Our graduates are in demand by employers who recognize their high skill level and readiness to succeed.

Our students receive a high-quality education at an affordable cost. It's a formula that works, thanks to our

- · dedicated and experienced faculty
- convenience, efficiency and affordability
- mission of access, student success and workforce development.

Stark State is the largest of Stark County's colleges and universities, and the fourth largest of Ohio's 23 public two-year colleges in the University System of Ohio. We offer more than 200 associate degrees, majors, one-year and career enhancement certificates in business, education, engineering technologies, health and public services, information technology, liberal arts, mathematics and sciences.

The College awards associate of arts, associate of science, associate of applied science, associate of applied business and associate of technical studies degrees. Our wide range of short-term career enhancement certificates help employees improve skills and gain a competitive edge in a marketplace of rapidly changing technology, and can lead to one-year certificates and associate degrees in a variety of fields.

#### AFFORDABLE, TRANSFERABLE EDUCATION

Students often get their start at Stark State through our affordability and transferability. The associate of arts (AA) and associate of science (AS) degrees open pathways for graduates to pursue a baccalaureate degree in virtually any area of study. Stark State offers a transfer module of 36-40 semester hours of credit courses guaranteed to transfer to all state-supported colleges and universities in Ohio. The College also has articulation agreements with more than 40 universities and colleges, allowing our students to move smoothly from associate degree programs into baccalaureate degree programs.

Not only does Stark State maintain a low tuition rate, our knowledgeable financial aid specialists help students explore the many grants, loans and scholarships that can help finance their education. More than half of all Stark State students have no out-of-pocket education expenses, thanks to scholarships and financial aid.

#### PARTNERS IN ECONOMIC GROWTH AND DEVELOPMENT

Well-respected in the community, Stark State College plays a vital role in the economic growth and development of the region through its strong tradition of providing credit and noncredit educational and training services to employers and residents. Our community and business partnerships are vital to the area. An on-campus partnership with LG Fuel Cell Systems, Inc. positions Stark State as a leader in supporting fuel cell research, development and commercialization, while our partnerships with oil and gas companies and The Timken Co. give our students applied research and training opportunities. These collaborations also fuel economic development, creating new industries and jobs for Stark County.

Former Canton Mayor William Healy II has said he's amazed at "how flexible Stark State is in being able to quickly ramp up to meet the needs of current and potential employers. Stark State is one of the greatest assets I have in selling Stark County to potential businesses."

#### **FACILITIES THAT SERVE OUR COMMUNITY**

- Along with our main campus on Frank Avenue in North Canton, Stark State offers easy access to affordable education in the Akron area with a new 50,000-squarefoot building at 360 Perkins St. Also in Summit County, the Barberton Satellite Center offers general education classes and in-demand welding training.
- The combined 68,522 square feet of Stark State's Well Site Training Center and Downtown Canton Satellite Center facilities showcases state-of-the-art training equipment for careers in the oil and gas industry and other programs.
- In 2015, Stark State opened a new Gateway Center on main campus, a one-stop approach to admissions, enrollment and recruiting.
- The College also operates the 10,000-square-foot Alliance Satellite Center on the campus of Alliance Community Hospital.
- The College's Dental Hygiene Clinic on main campus provides services to area residents at reduced rates from students-in-training under the expert supervision of dentists and faculty members.
- The Massage Therapy Clinic offers the community affordable therapeutic massage while providing our massage therapy students the opportunity to apply their knowledge and skills in a supervised setting.
- Our LEED-certified Business and Entrepreneurial Studies Building is a 47,700-square-foot home to degrees, majors and certificates in accounting, business management, corporate finance, entrepreneurship, marketing management and other programs.
- A \$9 million health sciences building accommodates the region's growing need for highly skilled health care workers.
- The W.R. Timken Center for Information Technology houses the information technology and engineering technology classrooms.
- The Ralph Regula Wellness and Therapy Center is an educational center for students studying physical therapy assisting and occupational therapy assisting.
- The Automotive Technology Center on Whipple Avenue is a 40,000-square-foot facility housing the automotive and transportation technologies, and a site in downtown Canton for second-year automotive technology students allows the program to expand to meet community demand.

## EXPERIENCED, CREDENTIALED FACULTY SERVE OUR DIVERSE STUDENTS

The average degree-seeking student fits the profile of the typical two-year college student in the nation: 59% of SSC students are female, 64% attend college part time, 25% are minorities and 51% are the first generation in their families to attend college. The average age of Stark State's students is 27, and the majority of our students hold jobs while in school.

The College has 176 full-time faculty and more than 340 adjunct faculty. More than 61% of the College's full-time faculty members have master's degrees and approximately 17% have doctorate degrees. The fact that many instructors and professors are hired with extensive expertise in their fields strengthens the College curriculum and provides students greater opportunity for "real world" application of both technical and general knowledge in their majors.

Our advisory committee system means 300 individuals representing more than 170 companies and organizations review curriculum and provide input on current trends in their industries.

Stark State College is accredited by the Higher Learning Commission. Many technology programs also are accredited by their respective licensing/accrediting organizations. Stark State is located in northern Stark County near Interstate 77, conveniently located for students from Stark, Carroll, Columbiana, Cuyahoga, Holmes, Mahoning, Medina, Portage, Summit, Tuscarawas and Wayne counties. Satellite centers are located in Akron, Alliance, Barberton and Downtown Canton.

\*As of fall 2018 census data, exluding College Credit Plus and Early College students.

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to www.starkstate.edu/policies. Printed copies may be requested in the Provost's Office.

# ACCREDITATIONS AND PROGRAM APPROVALS

#### STARK STATE COLLEGE IS ACCREDITED BY

The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1411; 312-263-0456 or 800-621-7440; Fax 312-263-7462; info@hlcommission.org; www.hlcommission.org

#### **BUSINESS AND ENTREPRENEURIAL STUDIES**

ACCOUNTING, CORPORATE FINANCE, FINANCIAL SERVICES, BUSINESS MANAGEMENT and MARKETING MANAGEMENT Accredited by the Accreditation Council for Business Schools and Programs, 11520 West 119th Street, Overland Park, KS 66213; (913)339-9356;info@acbsp.org; www.acbsp.org

#### **ENGINEERING TECHNOLOGIES**

AUTOMOTIVE AND TRANSPORTATION (Comprehensive, GM-ASEP, Honda PACT, Toyota T-TEN) Accredited by the National Automotive Technicians Education Foundation (NATEF); 101 Blue Seal Drive, SE, Suite 101, Leesburg, VA 20175; www.natef.org

CIVIL ENGINEERING TECHNOLOGY, DESIGN ENGINEERING TECHNOLOGY, ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY and MECHANICAL ENGINEERING TECHNOLOGY Accredited by the Engineering Technology Accreditation Commission of the Accreditation Board of Engineering and Technology (ETAC of ABET): 111 Market Place, Suite 1050, Baltimore, MD 21202-4012; 410-347-7700; www.abet.org

International Association of Drilling Contractors (IADC) Rig Pass, SafeLAND and SafeGULF programs.

#### **HEALTH**

DENTAL HYGIENE PROGRAM The dental hygiene program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body of the American Dental Association recognized by the United States Department of Education: Commission on Dental Accreditation, American Dental Association, 211 E. Chicago Avenue, Chicago, IL 60611; 312-440-4653; www.ada.org/en/coda

DIETARY MANAGER PROGRAM The dietary manager program is accredited by the Association of Nutrition and Foodservice Professionals, 406 Surrey Woods Drive, St. Charles, IL 60714; 800-323-1908; www.anfponline.org

FIRE/EMERGENCY MEDICAL Accreditation #008; Department of Public Safety/ Division of EMS,1970 West Broad Street, P.O. Box 182073; Columbus, OH 43218-2073; 800-233-0785; www.ems.ohio.gov. The Stark State College Paramedic program has been issued a Letter of Review by the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). This letter is NOT a CAAHEP accreditation status, it is a status signifying that a program seeking initial accreditation has demonstrated sufficient compliance with the accreditation Standards through the Letter of Review Self Study Report (LSSR) and other documentation. Letter of Review is recognized by the National Registry of Emergency Medical Technicians (NREMT) for eligibility to take the NREMT's Paramedic credentialing examination(s). However, it is NOT a guarantee of eventual accreditation. CoAEMSP: 8301 Lakeview Parkway Suite 111-312, Rowlett, TX 75088; 214-703-8445; FAX 214-703-8992; www.coaemsp.org.

HEALTH INFORMATION MANAGEMENT The health information management technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) in cooperation with the American Health Information Management Association's Council on Accreditation: CAHIIM 233 N. Michigan Avenue, 21st Floor, Chicago, IL 60601-5800; 312-233-1100; www.cahiim.org

MEDICAL ASSISTING The Stark State College Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB) Commission on Accreditation of Allied Health Education Programs; 1361 Park St., Clearwater, FL 33756; 727-210-2350; www.caahep.org

MEDICAL LABORATORY TECHNOLOGY Accredited by NAACLS (National Accrediting Agency for Clinical Laboratory Sciences): National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd., Suite 720, Rosemont, IL 60018-5119; 847-939-3597;www.naacls.org

NURSING Full approval status from the Ohio Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN – formerly NLNAC), 3343 Peachtree Road, NE, Suite 850, Atlanta, GA 30326; 404-975-5000 (phone); 404-975-5020 (fax);www.acenursing.org, www.nursing.ohio.gov

OCCUPATIONAL THERAPY ASSISTANT PROGRAM Accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA): AOTA, 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220; 301-652-AOTA; www.aota.org

PHYSICAL THERAPIST ASSISTANT PROGRAM Accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association: Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314; 703-706-3245; www.capteonline.org; www.apta.org

RESPIRATORY CARE The respiratory care program is accredited by the Commission on Accreditation for Respiratory Care (CoARC): 264 Precision Blvd, Telford, TN 37690; 817-283 2835; www.coarc.com

#### INFORMATION TECHNOLOGY

ADMINISTRATIVE OFFICE PROFESSIONAL and LEGAL ASSISTING Accredited by the Accreditation Council for Business Schools and Programs, 11520 West 119th Street, Overland Park, KS 66213; (913) 339-9356; info@acbsp.org; www.acbsp.org

JUDICIAL REPORTING (Day), BROADCAST CAPTIONING, AND ONLINE PROGRAMS Accredited by Council on Approved Student Education National Court Reporters Association (NCRA): NCRA, 12030 Sunrise Valley Drive, Suite 400, Reston, VA 20191; 703-556-6272; www.ncraonline.org

#### **eSTARKSTATE APPROVAL**

Online degrees offered by Stark State College have been approved by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1411; 312-263-0456 or 800-621-7440; Fax 312-263-7462; info@hlcommission.org; www.hlcommission.org

#### **EDUCATION**

EARLY CHILDHOOD EDUCATION Approved by the Ohio Department of Education: Certification and Licensure, Ohio Department of Education, 25 South Front Street, Columbus, OH 43215; 614-466-3593; www.ode.state.oh.us

#### **HEALTH AND PUBLIC SERVICES**

CRIMINAL JUSTICE (LAW ENFORCEMENT ACADEMY - BASIC TRAINING COURSE) Approved by the Ohio Peace Officer Training Academy (OPOTC) www.OhioAttorneyGeneral.gov

MASSAGE THERAPY CERTIFICATE PROGRAM – ASSOCIATE OF TECHNICAL STUDIES IN MASSAGE THERAPY Approved by the State Medical Board of Ohio: State Medical Board of Ohio, 30 E. Broad Street, 3rd Floor, Columbus, OH 43215-6127; 614-466-3934; www.med.ohio.gov

#### **WORKFORCE DEVELOPMENT**

STATE TESTED NURSE AIDE (STNA) TRAINING PROGRAM Approved by the Ohio Department of Health (ODH); www.odh.ohio.gov

Information about the approval process for listed programs may be requested from the respective division office or by contacting the approving agency directly.

## Admissions Procedures

Complete the following admissions steps, and if you need help along the way, give us a call at 330-494-6170 and ask for Admissions.

#### **Apply for admission**

Complete your application online at www.starkstate.edu.

#### Submit your documents

To register for courses you'll need to supply your official high school transcript — contact your high school guidance office to get your records — and these, if they apply for you:

- GED certificate and scores (bring the originals to Admissions, and we'll make a copy)
- Official transcripts from all colleges you previously attended (transfer students only)
- Selective Service number (males ages 18-26; register or receive a number at <u>www.sss.qov</u> or call toll-free 847-688-2567)

#### Placement assessment

Provide your ACT scores (if you've taken the test within the last two years)
-OR-

Set up an appointment to take the ACCUPLACER assessment; call 330-494-6170 or stop in M110.

-0R-

Have the results of any ACCUPLACER assessment you've taken in the past two years at another college or university sent to Admissions.

#### Apply for financial aid

You'll need to complete the FAFSA (Free Application for Federal Student Aid) to apply for financial aid. Go to www.fafsa.gov and use Stark State College's school code, 011141.

Visit Gateway Student Services in M102 or the financial aid webpage at <a href="https://www.starkstate.edu/finaid">www.starkstate.edu/finaid</a> for more detailed information.

#### New student orientation

You're required to complete a new student orientation before you can register for classes. Register for an in-person session (the best way to get your questions answered) or an online orientation at <a href="https://www.starkstate.edu/orientation">www.starkstate.edu/orientation</a>. You'll need your student identification number to reserve your seat

See how Stark State's tuition compares to other colleges and universities: www.starkstate.edu/tuitioncomparison.

#### TRANSFER APPLICANTS

Transfer credit will be accepted for successfully completed college-level courses from institutions of higher education which are accredited by the Higher Learning Commission or other regional accrediting commissions recognized by the Council On Higher Education Accreditation (CHEA). Transfer credit will be evaluated upon receipt of an official transcript.

#### TRANSIENT/GUEST STUDENTS

A transient/guest student is a student who plans to enroll at Stark State College on a temporary basis. Follow these steps to complete the admissions process:

- Complete a Stark State College application. The application is available online at www.starkstate.edu/admissions.
- 2. Receive academic advising and approval from home institution for course(s) planned for enrollment at Stark State. Submit written approval from home institution to Stark State College Academic Records/Registrar's Office indicating the course(s) for enrollment.
- 3. Meet with a Stark State admissions counselor to review enrollment process. Contact Admissions at 330-494-6170 with guestions.

#### INTERNATIONAL STUDENT ADMISSIONS

Stark State College is a certified Student and Exchange Visitor Program (SEVP) designee that welcomes qualified F1 visa holders from other countries. According to the Code of Federal Regulations 8 CFR 214.3(a) (2), specific schools are eligible to enroll F visa holder students, including a Community College or Junior College that provides instruction in liberal arts or in the professions and awards recognized associate degrees.

The following procedures pertain to international students holding an F visa who apply for admission to Stark State College.

- 1. Application.
  - a. An application must be completed and submitted to Stark State College using the international application available at www.starkstate.edu/admissions.
- 2. High school diploma (or equivalent) and transcripts
- a. It is the responsibility of the student to submit original or certified copies of the academic record in the original language with English translations. Students who have high school transcripts in a foreign language need to have them evaluated through a National Association of Credential Evaluation Services (NACES) http://www.naces.org/members.htm. The records must show completion of an equivalent level of a four-year high school diploma in the U.S. Students may also submit original or certified copies of examination results issued by the high school or examination board. Photocopies may be submitted in addition to the originals if requesting to have the original returned.
- 3. College transcripts
- a. Official U.S. college or university transcript
- Foreign college records. To request transfer credits for courses completed, submit your original or certified copies in the original language; and English translations of the records are required. Students must submit foreign transcripts to a professional foreign transcript evaluation service in the United States to pursue the possibility of receiving transfer credit(s).
- 4. Proof of English language proficiency. English proficiency results must not be more than two years old. Testing may be waived if the student has earned a degree from an accredited U.S. college or university or has completed a college level English composition course with a grade of "C" or above from an accredited U.S college or university.
  - TOEFL (Test of English as a Foreign Language): Stark State
     College institutional code is 1688. Paper based test (PBT:
     minimum score of 500) or Internet-based Test (iBT: minimum total
     score of 61 AND no score below 18 on both reading and writing
     sections)
  - IELTS (International English Language Testing System): Minimum score of 6.0
  - ACT (American College Test): Minimum English score of 18 or higher
  - d. AP (Advanced Placement Exam): English Literature and Composition or English Language and Composition test score of 3 or higher
  - e. Transfer credit in college-level English with a grade of "C" or better from an accredited U.S. college or university
- Immigration documents. Photocopies of the following documents must be submitted:

(see next page)

- a. Passport page that includes the student's photo and visa page.
- b. Front and back of the I-94 3.
- If an F visa holder is transferring to Stark State College, the Form I-20 from the student's current U.S. college or university, along with any transfer forms, must be submitted to Admissions.
- d. Financial documents for F visa applicants and dependents. An original letter on official letterhead from a bank or other financial institution in which the sponsor has saving deposits or other types of accounts containing readily available funds. Student must provide:
- Date account(s) were opened.
- Specific amount of funds in the account. Names listed as
  account holders on bank statement must match names and
  signatures on Affidavit of Financial Support form. The statement
  must be in English, and signed and sealed by the appropriate
  bank or government official. This information must be dated within
  six months of the intended date of enrollment. No business
  accounts will be accepted.
- After the above process is complete and the student is admitted to Stark State College, a Form I-20 Certificate of Eligibility for Nonimmigrant Student Status is mailed to the student.

#### mystarkstate PORTAL AND BANNER SELF SERVICE

The mystarkstate web portal provides students with web access to the College's student system, including a full suite of web-based self-service capabilities:

- review enrollment information
- · search for and register for classes
- · view midterm and final grades
- view degree audit evaluation
- check registration and financial account holds
- · check financial aid status and award amount
- pay tuition with credit card or check
- change personal information
- · request a Stark State College transcript or enrollment verification
- · track status of documents submitted for financial aid
- view advisor and program information

The mystarkstate portal is a service-oriented web portal environment that is the single focal point for College electronic communication, information and services. The portal provides a single access point and single sign-on for many services available at Stark State College, including eStarkState and email.

Note: NEW students must enroll in person for classes.

#### **CAREER COMMUNITIES**

Stark State's 10 career communities help you look at clusters of occupations that align with your interests, skills, goals and career plans. Whether you have your sights set on a specific career pathway or are exploring your options, it's a simpler way to find your career calling among the more than 230 degrees and certificates Stark State offers. You can select a certificate or associate degree in a career community or explore your passion by choosing an exploratory major within a career community.

If you aren't sure exactly what you want to study or what degree you want to pursue, selecting an exploratory major will help with structured exploration while reducing taking unnecessary credits. Your Gateway advisor and Career Services specialist are here to help you get to a career decision and completion of your program of study so you can begin your dream career and job!

#### **ACADEMIC ADVISING**

As you begin your SSC educational journey, you'll be supported by a Gateway advisor who will help you establish your career goal and select the right courses for you to accomplish it. Your Gateway advisor will stay with you through your initial 15 college credit hours, and then help you transition to your faculty advisor. Your faculty advisor will help ensure you're taking the right courses to complete your program of study and also will be your success champion as you progress to completion of your degree or certificate. Your advisors will work together to be your go-to team and help you navigate Stark State College to realize your goals.

You can find the name of your Gateway advisor and faculty advisor in your student portal, mystarkstate. Once in mystarkstate, click the MyStuff tab, scroll to the Academic Profile option and select the current term from the drop down menu. Your information will include the names of your Gateway advisor and faculty advisor.

#### PLACEMENT TESTING

Every first-time Stark State College degree-seeking student is required to take the ACCUPLACER exam unless the student has ACT scores. Students may retake the ACCUPLACER test once per academic year; however, once a student has begun a course based on ACCUPLACER placement, he/she may not retest in that area. Students with applicable transfer credits are not required to test in that area.

#### REQUIRED COURSE PLACEMENT

First-time SSC degree-seeking students are required to complete all developmental courses into which they are placed by ACCUPLACER or ACT scores and that are required by their programs, beginning with their first semester of credit enrollment and continuing for all subsequent semesters to completion. Reading proficiency is required of all students as determined by placement or course completion. Exceptions may be made on a case-by-case basis for a student returning after an absence at the discretion of the subject department chair or designee.

#### TRANSCRIPTING CREDIT FOR PRIOR LEARNING

Credit can be awarded for demonstrated college-level learning. Students applying for credit must

- 1. provide documentation to support the learning,
- 2. have documentation evaluated by the appropriate college personnel

If awarded, approved credit will be recorded on transcripts after a student successfully completes one semester at Stark State College. For more information, contact Admissions to speak with the Prior Learning Assessment Coordinator.

#### **CREDIT BY EXAMINATION (PROFICIENCY TESTING)**

Students who can demonstrate ability and knowledge in a particular subject area may establish credit in certain courses without enrolling in them. This is done by taking a special examination or performing a special assignment, or both, through the appropriate department. An examination fee is assessed. No letter grade is given. Students may take the exam only once per course. Students enrolled in a course are not eligible to take a proficiency examination for the course after the sixth business day of the semester (16, 10, 8 and 5 week).

#### ADVANCED PLACEMENT

The College accepts credits earned while in high school as measured by the College Entrance Examination Board's Advanced Placement (AP) program. Students must score three or higher on a subject-area examination. Contact Admissions at 330-494-6170 for additional information.

#### **CLEP CREDIT BY EXAMINATIONS**

The College will award comparable academic credit to registered students for successful completion of the College Entrance Examination Board's College Level Examination Program (CLEP) general and subject-area examinations. Contact Admissions at 330-494-6170 for additional information.

#### **ACADEMIC OUTREACH AND SATELLITE CENTERS**

At Stark State College, we understand the importance of making college education accessible to you in your community. The College is committed to serving students of all ages where they live and work by providing access to transferable higher education at our satellite centers and other locations. The College has locations in Akron, Alliance, Barberton and Downtown Canton. Each location offers students the same convenience, affordability, quality faculty and individualized attention as our main campus. Satellites and offsite locations also offer personalized service in the admissions process and the convenient location and parking can save you money on gas.

Financial aid and scholarship opportunities are available. Call 330-494-6170 or visit <a href="www.starkstate.edu/satellites">www.starkstate.edu/satellites</a> to find out how we can help you meet your education and career goals.

#### **COLLEGE CREDIT PLUS**

High school students from partner high schools may enroll in College Credit Plus courses. These courses may be offered at their high school, online or at the College. In all cases, they can earn the same transferable college credit. Students must meet the College entrance testing requirements (ACCUPLACER or ACT) and fulfill all prerequisites in order to enroll. Courses are taught by College-credentialed faculty who use the College textbook, syllabus and learning outcomes. Upon successful completion of the course, the student earns college credit as well as high school credit. For more information visit www.starkstate.edu/collegecreditplus.

#### **COLLEGE TECH PREP**

In an attempt to ease the transition to college for students in career-technical education, the state of Ohio, through collaboration between the Ohio Department of Higher Education and the Ohio Department of Education, has divided the state into six regional centers. Stark State College partners with Kent State University, the University of Akron and Youngstown State University in the East Central Region.

Through this joint venture, the four post-secondary institutions have come together in a unique partnership with the goal of supporting students, teachers, counselors and administrators. The main purpose of the collaboration is to create meaningful articulation agreements regionally with secondary high schools and career technical planning districts.

As the East Central Regional Center develops, Stark State looks forward to being a valuable partner in assisting northeast Ohio students in accessing earned college credits, increasing the number of college graduates and creating a highly qualified, well-paid workforce in Ohio.

#### **FULL-TIME STUDENT**

A full-time student is one who is officially enrolled in Stark State College for a minimum of 12 semester hours of course work in fall or spring semester or six hours in summer semester. (Please note that the definition of a summer full-time student may vary for financial aid purposes.)

#### PART-TIME STUDENT

A student enrolled in 11 semester hours of coursework or fewer during a fall or spring semester is considered a part-time student. Enrollment of five semester hours or fewer during a summer semester is considered part time.

#### STUDENT ID CARDS

Identification cards will be mailed to all students who apply to the College when they are accepted. This card also serves as the student's library card. You are expected to carry your ID card at all times. Loss or theft of an ID card should be reported to Gateway Student Services.

#### STUDENT RESPONSIBILITY

Students are responsible for being familiar with and adhering to all College Policies and Procedures as published on the College website at www.starkstate.edu/policies. The site is searchable by opening the link marked Complete P & P (pdf), then right-clicking on the document and typing in the search phrase listed above. Students without internet access may use open labs to access www.starkstate.edu/policies. Requests for printed copies of policies and procedures, or questions regarding any policy or procedure, should be directed to the Provost's Office.

## CAREER SERVICES

The Career Services Office enhances your success with comprehensive and innovative exploration of personal, academic and professional interests to help you secure a meaningful career. We connect with businesses and industries to maximize your career opportunities and make sure you're highly competitive in the job market. Visit us in the Gateway Center — Room M104 and on our website at starkstate.edu/careerservices

**Services Offered** – Career exploration, resume, cover letter, career fair preparation, mock interview, interview coaching, internship search, job search, LinkedIn development, networking

**Career Exploration** — Know that you want to enhance your education but aren't sure which career path would be the best choice for you? We offer individualized career exploration appointments to help you find your purpose and fit, helping you to feel confident in your major/career choice.

**Job search assistance** – We provide the latest research-driven information on job searches, what employers are looking for, and how to choose an indemand career. We can help you with all aspects of the job search, including resumes, cover letters, interviewing skills and more.

**Online job board (College Central Network)** – You can search for full-time, part-time, seasonal and/or internship opportunities. Submit your resume for employers to view and contact you directly www.CollegeCentral.com/starkstate.

**Professional work experience** – We help you connect with employers for full/part time jobs, internships, co-ops or apprenticeships.

 $\label{eq:Alumniassistance} \textbf{Alumniassistance} - \textbf{We} \text{ offer lifelong assistance to all whom have attended SSC}.$ 

**Schedule an appointment** – Stop-in M104, Call 330-966-5459, Utilize Starfish to schedule 24/7

## Financial Aid

Gateway Student Services is staffed with experienced professionals who can assist students in analyzing their particular situations and determining the appropriate avenue for financial assistance. The goal of the Gateway Student Services staff is to provide financial assistance to students who otherwise could not afford to attend college. Additional information about financial aid is available at www.starkstate.edu/finaid or in Gateway Student Services, located in M102.

#### APPLICATION FOR FINANCIAL AID CHECKLIST

Review the following checklist to determine if you have completed all necessary steps for starting classes in the coming semester.

- Apply for Admission Complete your Stark State College application online at www.starkstate.edu/admissions.
- Apply for Financial Aid All students applying for financial aid must complete the Free Application for Federal Student Aid (FAFSA). Apply via www.fafsa.gov. The Stark State College school code is 011141.
- Apply for Student Loan If you are interested in a federal student loan, submit a Direct Loan request form.

#### REQUIRED FORMS AND PRIORITY DATES

#### **Summer Session**

March 1 FAFSA filing deadline

April 1 Required documentation deadline

May 1 Loan request deadline

#### **Fall Session**

May 1 FAFSA filing deadline

June 1 Required documentation deadline

July 1 Loan request deadline

#### **Spring Session**

Oct 1 FAFSA filing deadline

Nov 1 Required documentation deadline

Dec 1 Loan request deadline

#### LATE APPLICANTS

Applications received after these dates will be considered for aid, but students may not receive funds until after the start of the semester. That means you should be prepared to use your own funds to pay for a portion of your tuition and all of your books before each semester's payment deadline.

#### FEDERAL AND STATE AID PROGRAMS

The following programs are grants and do not require repayment:

#### Federal Pell Grant (PELL)

An award of \$606 to \$5,920 per year, based on financial need. Eligibility is based upon need, enrollment and cost of education. The maximum can change yearly and depends on program funding.

#### Federal Supplemental Education Opportunity Grant (FSEOG)

Allocation of funds is at the discretion of Stark State. Awarding of funds is based on need and application date. Award amounts vary, up to \$500 per year. Apply through the FAFSA. According to federal regulations, students must be Pell-eligible to receive FSEOG funds. You must apply early! Funds are limited and are distributed on a first-come, first-served basis.

#### Federal Work Study Program (FWSP)

Allows students to be employed at the College to earn money for educational expenses. Awards are based on financial need; submit a written request to Gateway Student Services. An award does not guarantee earnings; students are paid with a bi-weekly paycheck for hours actually worked.

#### **Military Grants**

Branches of the U.S. military offer various financial aid opportunities.

#### **Veterans' Educational Benefits**

Stark State College is fully accredited under the laws that provide educational benefits for veterans. The School Certifying Official, located in M102, certifies veterans' eligibility.

#### **Scholarships**

Stark State College offers a wide variety of scholarship opportunities for qualified students. Additional information is available at <a href="https://www.starkstate.edu/scholarships">www.starkstate.edu/scholarships</a>.

#### **Social Service Programs**

Bureau of Vocational Rehabilitation Educational assistance may be available for students with special needs. Call the Canton (330-438-0500) or Akron (330-643-3080) office for more information. Workforce Initiative Association (WIA) and Trade Adjustment Assistance (TAA) for individuals who recently lost jobs or are entering the workforce after an extended period of unemployment. You must complete the FAFSA to determine eligibility for grants before being considered for WIA and TAA funding. For information about WIA and TAA, contact the Employment Source at 330-433-9675.

#### FEDERAL DIRECT LOAN PROGRAMS

A Federal Direct Loan offers freshman students up to \$5,500 and sophomores up to \$6,500 per year. Students pursuing a one-year certificate will remain at freshman level for borrowing purposes. This is a loan and must be repaid. Interest rates vary annually. If you already have a Direct Loan, borrowing a new loan will not affect the rate or terms of your previous loan(s). You may qualify for a subsidized and/or an unsubsidized Direct Loan up to the amounts listed above.

#### **Direct Subsidized Loans**

These loans are based on financial need, therefore some students may not qualify. With a Direct Subsidized Loan, no interest accumulates and no repayment is required as long as the student is enrolled in college at least half time.

#### **Direct Unsubsidized Loans**

Students who do not qualify for a Direct Subsidized Loan may be eligible to borrow up to the maximum annual amounts in unsubsidized loan funds. Loan payments can be deferred as long as the student is enrolled at least half time. Interest begins accruing when the loan is disbursed and can be paid by the borrower while in school and during the grace period to avoid capitalization. Independent students may have the option of borrowing an additional \$4,000 in unsubsidized Direct Loan funds.

#### Federal Parent Loan for Undergraduate Students (Federal PLUS)

The Federal PLUS program is for parents of dependent students. It is a loan in which family income is not taken into consideration; therefore, the program is open to almost any parent who has good credit. The parent can borrow up to the cost of the college education, less aid, at a variable rate of interest (currently not to exceed 9%). Repayment begins 60 days after the final disbursement of the funds. We recommend students first utilize all eligibility for grants and the Federal Direct Loans before receiving a Federal PLUS. Funds are paid in multiple disbursements and given to the parent(s) after tuition and fees have been paid.

# Standards of Academic Progress

Standards of Academic Progress (SAP) is a series of standards required to maintain eligibility for federal student aid. Requirements include components of completion of credit hours, grade point average (GPA), and maximum time frame as defined below. Students who do not meet these requirements will be ineligible to receive future financial aid.

#### **SAP** requirements

Stark State College requires that any student who applies for or receives federal financial aid make satisfactory academic progress toward an Ohio Department of Higher Education (ODHE) approved degree or certificate.

Satisfactory academic progress is measured as:

- Overall grade point average of 2.0
- Completion of 67% of the cumulative attempted credit hours, including hours of repeated coursework
- Completion of ODHE-approved degree or certificate within the number
  of required credit hours listed in the college catalog for the associate or
  certificate degree multiplied by 150%, as determined by Gateway Student
  Services, in order to include accepted transfer credit hours and up to 30
  attempted credit hours of required developmental coursework.

Successful grade completions are: A, AH, B, BH, C, UC, D, UD, CR Unsuccessful grade completions are: F, W, IN, NC

Failure to meet these measurements will result in the loss of federal financial aid.

#### **Monitoring Progress**

At the end of each term attended, a student's academic progress will be evaluated, based upon the standards listed above. If the student fails to meet any of the above requirements, they will receive a notification letter from the College.

After the first term in which the requirements are not met, a student will be placed on financial aid warning for one subsequent term. During the warning period, the student will continue to be eligible for federal financial aid. The College encourages the student to meet with an academic advisor to assist the student with their educational goals.

After the second term in which the requirements are not met, a student will become ineligible for federal financial aid. In order to regain federal financial aid eligibility, a student will be required to pay for their classes out of pocket until they are able to reach the 67% completion rate and a cumulative 2.0 GPA.

#### **Appeal Process**

If a student has unusual or mitigating circumstances, they may submit an appeal requesting to continue to receive federal financial aid. Mitigating circumstances must be documented and approved by the Standards of Academic Progress Appeal Committee, made up of a financial aid representative, academic affairs representative, and student services representative. The appeal must be submitted by the last day to register in the term in which a student is applying for continued federal financial aid. A student may only submit two appeals during their time at Stark State College. Rare exceptions will be made to this policy.

If federal financial aid is reinstated as a result of the appeals process, a

student is placed on probation for one term. During the probationary period, a student must complete all registered courses and achieve a 2.0 grade point average for each semester of the probationary period to remain eligible to receive federal financial aid. After one semester of meeting the probation requirements, the student will be placed on an academic plan and must continue to complete all registered courses and maintain a term 2.0 GPA. As long as a student is meeting the requirements of the academic plan, they will continue to receive aid. Once a student is at a 67% completion rate for all attempted courses and a 2.0 grade point average, they will go back to good standing.

#### **Appeal Procedure**

#### **STEP ONE**

A student must complete the Standards of Academic Progress Appeal form and submit it to Gateway Student Services along with an explanation and documentation of the reasons for failing to comply with the stated academic standards. The explanation must include what improvements a student has made that will ensure future academic success.

#### **STEP TWO**

The Standards of Academic Progress Appeal Committee, comprised of a financial aid representative, academic affairs representative, and student services representative, will review the appeal and render a decision.

#### **STEP THREE**

A student will receive the written decision of the Academic Progress Appeal Committee within ten business days of the committee meeting. **The decision of the Standards of Academic Progress Appeal Committee is FINAL.** 

The committee reserves the right to establish parameters as part of the approval process. This includes, but is not limited to, restrictions of credit hours or specific courses, mandatory advising, or adherence to an academic plan.

If a student is approved for financial aid, they are encouraged to seek an academic advisor to review an academic plan.

## STUDENT SERVICES

Stark State College provides non-instructional services to students. College faculty and staff support the philosophy, objectives and goals of the College and out of concern for students and their progress toward educational and occupational goals, the College has organized a program of services and activities to assist our students in making full use of the total educational program.

#### COMPUTER LAB USAGE GUIDELINES

Use of computing facilities at Stark State College is a privilege. Users are subject to compliance with certain principles designed to assure that all users have reasonable access to facilities. Students and others authorized to use the computer labs must read and agree to the terms of the guidelines prior to using any College computer equipment. The computer lab usage guidelines have been instituted to ensure that the action of any one user will not adversely affect any aspect of the work or computer usage of another.

Abuse of computing privileges is subject to disciplinary action. Disciplinary action may include loss of computing privileges and other disciplinary sanctions up to and including discharge and/or dismissal. An abuser of the College's computing resources may also be liable for civil or criminal prosecution.

Computer lab usage guidelines are available from the Office of Admissions, from the staff of any of the computer labs, at www.starkstate.edu and in the Student Handbook.

#### **HELP DESK SERVICES**

Help Desk Services provides technical support on systems used at the College. Access the Help Desk from mystarkstate, via phone at Ext. HELP or in person in Room B219.

#### OFFICE OF STUDENT DIVERSITY

Stark State College acknowledges, respects and values differences among its students and provides academic support services to students representing various dimensions of diversity while providing cultural programming to enhance each student's campus experience. The Office of Student Diversity works with students from their first year through graduation and provides the following services:

- academic, personal and group advising
- referrals for scholarships, financial aid assistance, career counseling and tutoring

Other support activities include

- coordinating communications between the student services office and the multicultural student community
- liaison between Stark State and various community agencies
- promotion of cultural diversity programs

To schedule an appointment, call the Office of Student Diversity at 330-494-6170, Ext. 4667.

#### STARK STATE COLLEGE STORE

The College Store is your connection for all your textbook and course material requirements. Supplies and imprinted clothing are available in the College Store. Open year-round, the College Store also sells unique gifts, greeting cards and postage stamps, along with faxing and laminating services. Additional printing allowances and color copies can also be purchased. The College Store may be accessed online at shop.starkstate.edu. Main S105/G105; Akron A103

#### **OPEN LABS AND WIRELESS ACCESS**

Several open computer labs are available for student use. Wireless Internet access also is available throughout the College.

#### STUDENT CODE OF CONDUCT POLICY

Stark State College provides an engaging, supportive, and empowering environment that creates the foundation for lifelong learning and individual professional development. The Student Code of Conduct is established to provide students a detailed list of prohibited behaviors for both on-campus and off-campus college-related activities, and disciplinary action(s) that can result in violating the Student Code of Conduct. The conduct code shall also apply to student conduct involving violations of federal, state, or local laws. You also are expected to abide by the College's Student Code of Conduct Policy and Procedure as adopted by the Stark State College Board of Trustees and posted at www.starkstate.edu/policies.

#### STUDENT DIRECTORY INFORMATION

A student's directory information includes the following information and may be released without the student's consent: name, home address, college email address, phone number, major, status (including dates of attendance, full-time/part-time, withdrawals, hours enrolled, degrees awarded and honors received, including Phi Theta Kappa, Dean's List, distinction, high distinction, etc.).

Please note that students have the right to withhold the release of directory information. To do so, a student must complete a Request for Non-Disclosure of Directory Information form available on mystarkstate under "personal information" or in the Academic Records/Registrar's Office.

Before placing a "no release" designation on records, students should note

- The College receives many inquiries for directory information from a variety of sources outside the institution including prospective employers, news media, honor societies, and insurance companies. Placing a "no release" designation on your record will preclude release of such information.
- A "no release" designation can apply to all elements or individual elements the student chooses to withhold.

Parents do not have an automatic right to information on the student attending Stark State College, even if the student is legally a minor under the age of 18. Parents do have the right to this information if the student is financially dependent on the parent and the parent can show proof of this by their most recent federal income tax return.

#### **STUDENT EMAIL**

Stark State College provides email accounts for all students. Access is available from any Web-enabled computer at the College, at home or any other location that has access to the internet and a Web browser. Information and access to the student email site is at <a href="http://email.starkstate.net">http://email.starkstate.net</a>

#### STUDENT PRIVACY REGULATIONS

The College has implemented the statutory requirements pertaining to the access, inspection, and review of student records in accordance with the Family Education Rights and Privacy Act of 1974.

#### STUDENT RECORDS

Student records include all official records, files and data directly related to a student who has attended classes at Stark State College. This includes all material that is incorporated into the student's cumulative record folder, which is intended for College use or to be available to parties outside the College, and specifically including, but not necessarily limited to, identifying data, academic work completed, level of achievement (grades, standardized achievement test scores), attendance data, scores on standardized intelligence, aptitude and psychological tests, interest inventory results, health data, family background information, teacher or counselor ratings and observations and verified reports of serious or recurrent behavior patterns.

## STUDENT SUCCESS

The Student Success Division provides support programs to assist students in achieving their academic goals at Stark State, including:

#### DIGITAL LIBRARY AND LEARNING RESOURCE CENTER

The Stark State Digital Library, available from any Internet enabled computer and physically located adjacent to the College Atrium, is a collection of digital resources and library services available to students. Librarians provide research and reference assistance face-to-face, through online chat (<a href="http://libguides.starkstate.edu/chatus">http://libguides.starkstate.edu/chatus</a>), and even via text message (330-267-9272). For hours and more information, visit <a href="http://libguides.starkstate.edu/library">http://libguides.starkstate.edu/library</a> or call 330-494-6170, Ext. 4141.

For students looking for a more traditional library experience, the Digital Library partners with the Kent State University at Stark Library, commonly known as the Learning Resource Center. The Learning Resource Center is located east of the main student parking lot and serves both Stark State College and the Kent State University at Stark Campus. For current hours, visit <a href="http://www.kent.edu/stark/library">http://www.kent.edu/stark/library</a> or call 330-244-3330 for library information.

#### **DISABILITY SUPPORT SERVICES**

Stark State College provides equal access to educational programs and services for all qualified students with disabilities. The Disability Support Services staff assists students by providing academic support services and accommodations, academic advising, admissions and financial aid assistance and career guidance. The College's Disability Support Services Office coordinates various services with academic and non-academic offices and serves as a liaison between the College community and state and local agencies.

Students are required to provide documentation of their disability, such as psychological, medical or school evaluations, to help the Disability Support Services department provide appropriate academic accommodations and support services. Call Disability Support Services at 330-494-6170, Ext. 4935 for information or to schedule an appointment.

#### **E-LEARNING ORIENTATION (WEB-BASED COURSES)**

Students enrolling in Web-based courses for the first time are required to complete "Succeeding Online," a required online orientation class, the first time they take a Web 2, 3 or 4 class. More information can be found at www.starkstate.edu/estarkstate-orientation.

#### FOCUS ON AFRICAN AMERICAN MALES IN EDUCATION (FAME)

FAME is designed to promote college-going among African American males by strengthening social skills, emotional well-being, and academic achievement through high school and college academic support systems.

#### **INTERFAITH CAMPUS MINISTRY**

Interfaith Campus Ministry was formed in 1967 and serves all persons on the campus – students, faculty and staff – through personal counseling (faith issues, crisis, family, stress, loneliness, communication), support groups and study groups. Interfaith is a link between the campus, religious communities and area resources. Interfaith promotes respect for the dignity of each person and understanding and acceptance of persons of diverse faith, traditions and cultures. Interfaith responds to personal concerns in a confidential atmosphere. Interfaith sponsors the Stark Campus Preschool Child Center, located across Frank Avenue.

#### **CAMPUS PRESCHOOL CENTER**

The Stark Campus Preschool Child Center is operated by Interfaith Campus Ministry for students, faculty and staff of Stark State College and the community. Children may be enrolled by the semester. The center is located at the John Knox Presbyterian Church, 5155 Eastlake N.W., across the street from the campus. For child care rates, hours, registration information and more, call 330-499-0909.

#### **MILITARY SERVICES**

The Military Services department provides comprehensive enrollment and educational services to active duty military members, veterans and their dependents. These services include admissions, financial aid, career and academic advising support, as well as assistance with applying for VA educational benefits. For more information, stop by the Military Services office, call 330-494-6170, Ext. 4939 or visit <a href="https://www.starkstate.edu/militaryservices">www.starkstate.edu/militaryservices</a>.

#### STUDENT SUPPORT AND JUDICIAL AFFAIRS

Student Support and Judicial Affairs Intervention Services assists students as they pursue their academic goals by promoting academic and personal development through individual consultation, workshops, outreach services, support groups and referrals offered by a trained, licensed, mental health professional. These services are designed to provide support on an array of concerns including but not limited to mental health, substance abuse, behavioral concern and general lack of resource issues.

Additional services include training for the campus community in recognizing and handling students in need of assistance; developing and monitoring intervention plans; and providing emergency crisis counseling services. Student Support and Judicial Affairs is the initial point of contact for college-wide activities related to student due process and judicial proceedings within campus safety and security process.

#### THE TESTING CENTER

The Testing Center in M202 offers both computer-based and pencil and paper testing for specific courses. Some courses require students to take computer-based tests in the Testing Center during a timeframe of usually three to four days. This service provides more instructional time in class, as well as an opportunity for students to become familiar with this technology. This arrangement is an advantage for students, since many licensure exams are now computer-based.

#### TRiO - Student Support Services (SSS)

The TRiO student support services project is a federally funded program offering a wide variety of support and academic services to qualifying students. Participants are low-income, first generation college students who require academic support. Some of these students also may have disabilities. TRiO provides education and career planning, advising, tutoring and educational counseling.

#### TRiO - Upward Bound Math and Science (UBMS)

UBMS provides educational and academic support to area high school students to provide them access to Stark State and assist them in learning about going to college. These students spend six weeks during each summer on our campus, taking classes and adapting to the college environment, preparing themselves for entry to college after high school graduation.

## STUDENT LIFE

The College's goal is to provide the finest intellectual experience in an environment that highlights the fullest individual and social development of each student. The Office of Student Life offers a wide variety of student clubs, activities and campus events to enhance the co-curricular experience.

#### STUDENT LEADERSHIP ACADEMY

Student Leadership Academy is designed to help students develop valuable skills future employers are looking for: communication, motivation, goal setting and presentation skills. Two leadership academy tracks now available: Personal Leadership Track and Career Development Track.

#### PHI THETA KAPPA HONOR SOCIETY

Phi Theta Kappa is an international honor society for two-year colleges and is similar in structure and operation to Phi Beta Kappa at four-year institutions. Phi Theta Kappa provides its members with opportunities in the areas of scholarship, leadership, service and fellowship. The society has more than three million members and nearly 1,285 chapters worldwide. The Beta Gamma Epsilon chapter of Phi Theta Kappa was established at Stark State College in 1996. To qualify for membership, a student must have a cumulative GPA of 3.75 or higher in at least 16 hours of degree-related courses. To continue membership, a student must maintain a cumulative GPA of 3.4. The initial membership fee provides lifetime membership at the local, regional and international levels. Phi Theta Kappa members are encouraged to participate in honors and service projects at all levels of the society.

#### PSI BETA PSYCHOLOGY HONORS CHAPTER

Psi Beta Psychology Honor Society is a sister organization of Psi Chi and is designed to serve students at the community college level. The purpose of the Stark State College chapter of Psi Beta is to serve as a means of national recognition of the student's early interest in and dedication to the field of psychology and to scholastic achievement, provide opportunities to become acquainted with and involved with the larger field of psychology, and provide a forum for developing one's perspective about psychology and for building a sense of community and identity with others in the field. Additional goals include enhancing leadership skills and encouraging research; provide greater opportunity for student/faculty interaction outside the classroom, and to benefit the campus and community through programs and services. Members have earned an overall cumulative grade point average of at least 3.25, including all transfer credits, have completed at least one introductory psychology course and 12 semester hours total college credit and have achieved a minimum 3.5 grade point average in core psychology courses. Finally, members must maintain high standards of personal behavior and integrity and receive a 3/4 affirmative vote of the membership attending a regular chapter meeting.

#### MU ALPHA THETA MATHEMATICS HONOR SOCIETY

Mu Alpha Theta is the national mathematics honor society for two-year colleges dedicated to inspiring keen interest and developing strong scholarship in mathematics. The society rewards outstanding extracurricular achievement and has more than 105,000 members nationwide. Stark State's Mu Alpha Theta chapter was established in 1986 and was reactivated in 2015. The chapter promotes leadership skills, research and the enjoyment of mathematics and hosts an annual award ceremony where outstanding achievements in and out of the classroom are recognized. The chapter also networks with other clubs and participates in regional, state and national competitions. To be eligible for membership, you must have had at least one mathematics course at or above the precalculus/(college algebra and trigonometry) level and at least a 3.0 GPA overall in all college mathematics courses at or above the precalculus/(college algebra and trigonometry) level.

#### STUDENT GOVERNMENT ASSOCITAION

The Student Government Association (SGA) is the governing body for and official voice of the Stark State College student body. With a role in institutional governance, SGA represents your views and opinions to the College administration and provides student representatives to institutional governance committees.

#### STUDENT ORGANIZATIONS/CLUBS

An important part of student life at Stark State is involvement in student organizations. There's something for everyone at Stark State; just take a look at www.starkstate.edu/student-organizations

- Amateur Radio Society
- American Sign Language (ASL)
- Association for Medical Laboratory Technicians (AMLT)
- Beta Beta Beta (Tri Beta) Biological Honor Society
- Between the Covers Book Club
- Comic Book Club
- Criminal Justice Student Association
- CRU (Campus Crusade for Christ)
- Culinary Club (Epicurean Society)
- Cultural Diversity Coalition
- Energy and Environment Club
- **Education Club**
- Food and Nutrition Club (FaN)
- Gamers Guild (For students interested in graphics, animation and video gaming)
- Heads Up (Success support for male minorities)
- High Technology Crime Investigation Association (HTCIA)
- Human and Social Services Student Association
- Institute of Electrical and Electronic Engineers (IEEE)
- Institute of Management Accountants (IMA)
- International Association for Hydrogen Energy
- International Club
- LGBTQ+
- Mu Alpha Theta Mathematics Honor Society
- Multimedia Group
- National Electric Contractors Association (NECA)
- Native American Indian Organization
- Ophthalmic Technology Student Association (OTSA)
- Outdoor Adventure Club
- Phi Theta Kappa Honor Society
- Physics and Astronomy Club
- Pre-Medical Professionals Club
- Psi Beta Psychology Honors Chapter
- Respiratory Therapy Club Rotaract (Alliance Satellite Center)
- Society of Manufacturing Engineers (SME)
- Sociology Association
- Software Development Guild
- Stark Communication Society
- Stark Raving Writers
- Stark Voices Student Publication
- Stark State College Association of Medical Assistants
- Stark State Student Chapter of the American Chemical Society
- Stark State Theater
- Student Ambassador Program
- Student American Dental Hygienist Association (SADHA)
- Student Connection Club
- Student Government Association/InterClub Council
- Student Health Information Management Association (SHIMA)
- Student Nurse Association (SNA)
- Student Occupational Therapy Assistant Club (SOTA)
- Student Physical Therapist Assistant Club (SPTA)
- The Edge (Student-led Christian group)
- The Forensic Society
- Women of Color
- Women of Color

# Tuition, Fees, Methods of Payment, Refunds and Residency Requirements

Stark State College is committed to providing an excellent college education at an affordable cost to students. The College Board of Trustees, administration, staff and faculty work diligently to control costs and maintain efficiency of the College's operations.

The Board of Trustees of Stark State College reserves the right to revise the current schedule of tuition and fees at any time and without prior notice.

The tuition schedule for the 2018-2019 academic year follows and can be found online at www.starkstate.edu/tuition.

#### **TUITION\***

Tuition includes instructional and general fees

Credit hours	Total tuition (Ohio residents)
1	169.60
2	339.20
3	508.80
4	678.40
5	848.00
6	1,017.60
7	1,187.20
8	1,356.80
9	1,526.40
10	1,696.00
11	1,865.60
12	2,035.20
13	2,204.80
14	2,374.40
15	2,544.00
16 or more	2,713.60

\*Out-of-state residents

#### **FEES**

For more info, visit www.starkstate.edu/tuition

#### **REQUIRED FEES**

Processing fee (one-time charge only) ............. 95.00 Maintenance and campus security fee .... 35.00/sem (per individual semester, 4 or more credit hours)

#### OTHER FEES (optional per student need)

35.00
84.80/cr hr
10.00/cr hr
5.00/cr hr
4.50/sem
25.00

(Avoid an installment fee by paying your bill in full by cash, check or credit/debit card. For information go to www.starkstate.edu/sipp.)

#### PROGRAM/COURSE FEES

Some programs and/or courses require special fees www.starkstate.edu/tuition

Stark State College reserves the right to revise the schedule of fees at any time without prior notice. Books, drawing instruments and other supplies are in addition to fuition fees.

Printed copies of the current schedule of tuition and fees may be requested from

- Admissions
- Business Office
- Cashier's Office
- Gateway Student Services

#### **FEES DESCRIPTIONS**

#### **Processing Fee**

The processing fee covers the cost of applying to the College, student assessment, creation of a permanent student record and entering student information into the College's record-keeping system. The processing fee is a one-time fee payable upon first registration.

#### **Maintenance and Campus Security Fee**

This fee helps cover the costs of maintaining the College's buildings, grounds and security.

#### Instructional Fee (included in tuition)

The instructional fee supplements other sources of income to cover the cost of instruction and general operating expenses.

#### **General Fee (included in tuition)**

The general fee supplements state subsidies for general institutional services. A portion of this fee is designated to support technology and facilities.

#### **Online Fee**

The online fee helps cover the cost of the College's Learning Management System (Blackboard), hosting services and course design and development.

#### **Out-Of-State Residents Tuition Surcharge**

A tuition surcharge is assessed to out-of-state students, in addition to the per credit hour in-state tuition.

#### **Selective Service Fee**

A surcharge is assessed for any eligible male student who has not provided his selective service number to the College. This surcharge is equal to the current Out-of-State Residents Tuition Surcharge.

#### **Locker Fee**

A limited number of lockers are available for student use, for a rental fee.

#### Student Installment Payment Plan Fee (SIPP)

Students electing to use the student installment plan to pay tuition and fees will be required to pay a small, non-refundable fee for the service.

#### **Credit By Examination Fee**

A student who can demonstrate ability and knowledge in a particular subject area may establish credit in certain courses without enrolling in them. This is done by taking a special examination or performing a special assignment, or both, through the subject department chair. An examination fee is assessed.

#### **Background Check Fee**

For those who need to obtain some of their educational training off campus at a hospital, day care center or other business, a background check(s) may be required. A fee is assessed to cover the cost of processing the background check.

#### **Culinary Fee**

The culinary fee is a fee established per course to cover the cost of consumable goods required for the specific course. Fees may vary by course.

#### **Dental Hygiene Facility Fee**

The dental hygiene facility fee supplements sources of income to cover the costs of dental hygiene instruction. The fee is charged each semester and is limited to dental hygiene students.

#### **Respiratory Care Technology Fee**

The respiratory care technology fee covers the cost of enhanced certification preparation for credentialing exams and certifications, as well as the cost of clinical simulation in the practicum course. Fees may vary by course.

#### **Welding Fee**

The welding fee supplements the purchase of equipment, consumables and supplies for welding instruction. Fees may vary by course.

#### **Dietetic Technology Fee**

The dietetic technology fee covers the cost of food materials and preparation methods for the specified course. Fees may vary by course.

#### **Commercial Driver's License Fee**

The CDL fee covers the cost of program tuition and class fees as well as state fees and semi rental for one CDL driving test. If the student does not pass the CDL test, they must pay for all fees associated with additional test attempts. This fee does not cover the student's required Department of Transportation physical or drug screen. Students are also responsible for the cost of the permit and any endorsements they wish to add.

#### **Law Enforcement Academy Fee**

The Law Enforcement Academy fee covers expenses for delivering academy courses.

#### **Health Record Management Fee**

This fee is used to cover costs of electronic filing and maintenance of personal health records. Personal health records are necessary for students to progress through their chosen program and gain access to clinical training sites.

#### **METHODS OF PAYMENT**

#### **Payment of Fees**

Payment of tuition and fees may be made in full, at the cashier's window, online, by mail or deposited in the payment drop box on the third floor of the Student Services Building. Fees may be paid with cash, check, money order, debit card, Visa/MasterCard/Discover.

#### Student Installment Payment Plan (SIPP)

This program is an alternative to the single payment of fees due at the beginning of each academic semester. A one-time \$25 non-refundable (convenience) fee is assessed at the time of the first partial payment.

A \$50 minimum payment must be made by first initial payment deadline date. After the first initial payment deadline, there are three payment dates. Payments schedule: 2nd payment 14 days after initial payment, 3rd- 30 days after 2nd scheduled payment date, 4th payment date is 30 days after 3rd scheduled payment date. To enroll in the installment plan, print and return form to cashier's window. The form is located at <a href="https://www.starkstate.edu/sipp">www.starkstate.edu/sipp</a> or the Business Office.

#### **Senior Citizens Waiver**

Citizens who are 60 years of age or older and have paid the current processing fee may audit credit courses tuition-free on a space-available basis. All other fees are due when incurred.

Senior citizens will receive a 15% discount on course fees for non-credit continuing education courses by presenting their Golden Buckeye Cards at the time of registration. This discount applies to in-person registrations only and does not include special senior citizens classes or company-paid registrations.

#### **REFUNDS**

#### **Refund Schedule**

Students who wish to withdraw from courses in which they are enrolled and which are being conducted in accordance with the class schedule must complete academic drop/withdrawal procedures to qualify for a refund.

The following regulations apply to refunds:

- Full refunds are given to students who enroll in classes that are cancelled by the College.
- Full refunds are given to students the College does not permit to enroll or continue in coursework.
- Refunding of fees for the above circumstances is automatic and you are not required to complete academic withdrawal procedures.

- The processing fee and all miscellaneous fees are not subject to refund.
- Instructional fees and general fees paid at the beginning of each semester are subject to refund to students who officially withdraw for valid reasons at the following rates:

16-week, 10-week, 8-week course:

- Before the eighth calendar day (excluding holidays and emergency closings) of the semester – 100 percent refund
- On the eighth through the fourteenth calendar day (excluding holidays and emergency closings) of the semester – 50 percent refund
- On the fifteenth calendar day (excluding holidays and emergency closings) of the semester and beyond – no refund

5- week course

- Before the eighth calendar day (excluding holidays and emergency closings) of the semester – 100 percent refund
- On the fifteenth calendar day (excluding holidays and emergency closings) of the semester and beyond – no refund

The first day of the semester is defined as the official starting date of the semester or portion of the semester. Days of the semester will be counted as any Monday through Friday that classes are in session. Weeks of the semester will be counted as starting on the first day of the semester and every week thereafter. Holidays, Saturdays and Sundays will not be included as days of the term for those refund sections counting days. Holidays, Saturdays and Sundays will be included as days of the term for those refund sections counting weeks. For those classes meeting only once a week on Friday, Saturday or Sunday, the 100% refund period will extend through the Tuesday after the first scheduled class or through the sixth day of the semester, whichever is later.

The Business Office will audit each registration. If fees are paid under mistake of law or fact, appropriate charges or refunds will be made. All refunds will be made within 30 days of withdrawal or schedule change.

#### Financial Aid Issues in Cases of Withdrawal or Non-Attendance

Students must maintain attendance in their scheduled classes to remain eligible for financial aid funds. Students who fail to maintain attendance in classes, who withdraw or are dismissed before 60% of the term has passed, will have all or a portion of their federal aid eligibility rescinded. This will likely result in monies needing to be repaid to the College and/or the U.S. Department of Education. Students who receive federal financial aid and do not attend classes will be dropped from their classes and have their financial aid cancelled or reduced. The federal government mandates that federal monies for non-attendees who receive federal financial aid be returned to the federal government. Attendance also will be documented throughout the semester to verify the last day attended in each class.

#### **Medical Withdrawal Policy**

In the event of a severe or life-threatening medical condition for you or an immediate family member, you may appeal for consideration above and beyond the normal refund policy. Appeals must be made in writing no later than 15 calendar days after the end of the semester and fully explain the circumstances involved and specify the consideration desired. The appeal must be accompanied by a signed physician's letter explaining the medical condition and completed Student Medical Withdrawal Form, which can be

found on the mystarkstate portal in the Student Forms section. Verbal or incomplete requests will be refunded according to the normal refund policy. All appeals will be reviewed within 30 days of receipt, and you will be notified of the determination in writing. Documentation should be provided to the Bursar's Office.

#### STARK STATE COLLEGE RESIDENCY REQUIREMENTS

Payment of non-resident tuition surcharge is required of any student who does not qualify as a permanent resident of Ohio, as defined by the Ohio Revised Code, section 3333-1-10: Ohio Student Residency for State Subsidy and Tuition Surcharge Purposes.

#### Intent. Authority and Definitions

It is the intent of the Ohio Department of Higher Education in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the state of Ohio primarily for the purpose of receiving the benefit of a state-supported education while insuring that the same benefit is conferred on all bona fide domiciliaries of this state whose permanent residence and legal citizenship is in Ohio, and whose actual source of financial support is subject to Ohio taxation. This rule is adopted pursuant to Chapter 119 of the Revised Code, and under the authority conferred upon the Ohio Department of Higher Education by Section 3333.31 of the Ohio Revised Code.

For purposes of this rule, a "Resident of Ohio for all other legal purposes" shall mean any person who maintains a 12-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the Ohio Revised Code; provided such person has not within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.

The dependent child of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time self-sustaining employment and established domicile in the state of Ohio for reasons other than gaining the benefit of favorable tuition rates, shall be entitled to in-state residency.

"Financial support" as used in this rule, shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.

An "institution of higher education" as used in this rule shall mean any university, community college, technical institute or college, general and technical college, medical college or private medical or dental college that receives a direct subsidy from the State of Ohio.

#### **General Residency for Subsidy and Tuition Surcharge Purposes**

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

- Dependent students, at least one of whose parents or legal guardian has been a resident of the state of Ohio for all other legal purposes for 12 consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.
- 2. Persons who have resided in Ohio for all other legal purposes for at least 12 consecutive months immediately preceding their enrollment in an institution of higher education and who are not receiving, and have not directly or indirectly received in the preceding twelve consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
- 3. Persons who are living and are gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who are pursuing a part-time program of instruction at an institution of higher education. Under the state's new Forever Buckeye program the in-state resident tuition rate applies to any Ohio high school graduate who returns to the state to enroll in an Ohio college and establishes Ohio residency.

Specific Exceptions and Circumstances

1. A person on active duty status in the United States military service who

- is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
- A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
- Section 3345.32 of the Ohio Revised Code requires that male students
  who are Ohio residents and must register for selective service verify that
  they have registered with the selective service in order to be considered
  in-state residents to attend Ohio public colleges and universities.
- 4. Any alien holding an immigration visa or classified as a political refugee shall be considered a resident of the state of Ohio for state subsidy and tuition surcharge purposes in the same manner as any other student.
- No person holding a student or other temporary visa shall be eligible for Ohio residency for these purposes.
- A dependent person classified as a resident of Ohio for these purposes shall continue to be considered a resident during continuous full-time enrollment, and until his or her completion of any one academic degree program.
- 7. In determining residency of a dependent student, removal of the student's parents or legal guardian from Ohio shall not, during a period of 12 months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph (C) (1) of this rule.
- 8. Any person once classified as a non-resident, upon the completion of 12 consecutive months of residency in Ohio for all other legal purposes, must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding 12 consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident. Evidentiary determinations under this rule shall be made by the institution which may require, among other things, the submission of information regarding the source of a student's actual financial support to that end.
- Any reclassification of a person who was once classified as a non-resident for these purposes shall have prospective application only from the date of such reclassification.
- 10. A person who is transferred by his employer beyond the territorial limits of the 50 states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents

- shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
- 11. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.

# ACADEMIC POLICIES AND PROCEDURES

Academic policies and procedures are designed to assist Stark State students in achieving academic success. The governance of the College routinely reviews policies and procedures to support student success and to promote the academic quality of our College.

All current and official policies and procedures are maintained on the Stark State College website at <a href="www.starkstate.edu/policies">www.starkstate.edu/policies</a> at all times, including but not exclusive to

Academic Forgiveness Academic Honors Academic Probation and Dismissal Affirmative Action Anti-Harassment Attendance Audit of Credit Courses College Computing Resources Concealed Weapons Complaint Procedure Consensual Relationships Course Substitution Credit by Proficiency Examination Credit Residency Requirement Dean's List Early Alert Final Grading System Grievance Procedures Grade Appeal Grade of Incomplete Graduation Requirements Honesty in Learning Medical Withdrawal Mid-term Grade Non-Payment Drop President's List Probation and Dismissal Property Use Registration Deadline Smoking/Smokeless Tobacco Use Sexual Assault Standards of Academic Progress (SAP) Student Code of Conduct Student Records Transcripts Transfer Credit, Acceptance and Application

Withdrawal Procedure

The site is searchable at <a href="https://www.starkstate.edu/policies">www.starkstate.edu/policies</a> by opening the link marked Complete P&P (PDF), then right-clicking on the document and typing in the search phrase listed above. Students are responsible for being familiar with and adhering to College policies and procedures. Students without Internet access may use open labs to access <a href="https://www.starkstate.edu/policies">www.starkstate.edu/policies</a>. Requests for printed copies of policies and procedures, or questions regarding any policy or procedure, should be directed to the Provost's Office.

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to <a href="https://www.starkstate.edu/policies">www.starkstate.edu/policies</a>. Printed copies may be requested in the Provost's Office.

# COLLEGE COMMITMENT TO SCHOLASTIC HONESTY, STUDENT INTEGRITY AND HONESTY IN LEARNING

Student integrity and scholastic honesty are an integral part of the College's scholastic standard, academic quality and a foundation for our society. Faculty, staff and students are responsible for promoting honesty in learning. Students are responsible for reading and following the Honesty in Learning Policy available at www.starkstate.edu/policies. Any student who violates or assists another to violate the Honesty in Learning Policy will be penalized.

#### **HONESTY IN LEARNING**

Stark State College supports honesty in learning as an institutional value; therefore, dishonesty – such as cheating, plagiarism, or furnishing false information to the College or its staff – will subject a student to disciplinary action, which may include dismissal from the College. Faculty, staff and students are responsible for promoting honesty in learning. Students are responsible for being familiar with the policy located in the Student Handbook. Any student who violates or assists another to violate the Honesty in Learning Policy will be penalized.

- Plagiarism According to the Council of Writing Program Administrators, "In an instructional setting, plagiarism occurs when a writer deliberately uses someone else's language, ideas, or other original (not commonknowledge) material without acknowledging its source."
- Coursework Work done for class, which a student submits as the student's own work, will not contain that which has been obtained from another, other than properly credited references, sources, and citations. The work which a student submits will be prepared in accordance with course guidelines.
- Exams Work done on a test, exam, or quiz will be the student's own and will not contain that which has been obtained from an inappropriate source. A student will not obtain nor seek to obtain advanced access to questions or advance copies of a test, exam or quiz without the instructor's permission.

Procedures regarding violations of the Honesty in Learning Policy are contained in the Policies and Procedures Manual.

# STATE OF OHIO POLICY FOR INSTITUTIONAL TRANSFER

#### **OHIO TRANSFER POLICY**

Transfer students shall be subject to the catalog in force at the time of their admission to the receiving institution and to any revisions that occur after its publication and prior to their enrollment. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as native students. Furthermore, transfer students shall be accorded the same class standing and other privileges (e.g., financial aid, registration, parking privileges, etc.) as native students on the basis of the number of credits earned. For more information about credit transfer: www.regents.ohio.gov/transfer.

#### **MILITARY TRANSFER ASSURANCE GUIDELINES (MTAGs)**

If you have served in the U.S. Armed Forces or National Guard, your training, experience and/or coursework may translate to college credit. All training, experience, and coursework must first be recognized by the American Council on Education (ACE) or a regional accrediting body, such as the Higher Learning Commission (HLC), in order to be eligible to earn college credit.

Military Transfer Assurance Guides (MTAGs) provide a statewide guarantee that certain types of military training, experience, and/or coursework align to existing college and university courses and will be awarded appropriate credit. The list of MTAGs approved for Stark State College by the Ohio Department of Higher Education can be found at www.starkstate.edu/mtags. More information about military transfer is also available at the Ohio Department of Higher Education, <a href="https://transfercredit.ohio.gov">https://transfercredit.ohio.gov</a>.

#### TRANSFER ASSURANCE GUIDELINES (TAGs)

Students are guaranteed the transfer of applicable credits among Ohio's public colleges and universities and equitable treatment in the application of credits to admissions and degree requirements. Students can complete specific general education courses anywhere in the public system as well as many courses in the degree/major that have been pre-identified for transfer. For more information about TAGs available through Stark State: www.starkstate.edu/tags.

#### **TRANSFEROLOGY**

Transferology is an online tool that helps students view program requirements, course equivalencies, and see how courses transfer to another college or university. To get access to all that Transferology has to offer: www.transferology.com/welcome.htm.

#### PRIOR LEARNING ASSESSMENT

To help students earn postsecondary certificates and degrees, Stark State College will advance and promote the awarding of credit to students for prior learning based on transparent, consistent, and rigorous statewide standards. Assessing the prior learning of students recognizes that college-level learning is acquired through means in addition to credit course enrollment. Prior Learning Assessment (PLA) is a comprehensive phrase used to reference the evaluation methods to measure prior learning experience. PLA extends articulation and transfer policy to current professional licensure or certification; completion of formal training/certificate — including non-credit training; military transcript/ACE transcript; portfolio; divisional proficiency exam/challenge exam; personal interview; bypass prerequisites; or CLEP or AP up to the maximum established credit hours. Prior Learning Assessment (PLA) is evaluation of learning acquired outside of the college and is documented as "CR" credit.

#### **AA/AS DEGREES**

Stark State's associate of arts and associate of science degrees are the first step to a bachelor's degree, providing a foundation in general education with special emphasis on the baccalaureate degree students plan to pursue. These transfer degrees are intended as an affordable, transferable beginning to a four-year degree. Students should talk with their academic advisor for more information.

#### TRANSFER MODULE

Another option for students is the transfer module, which guarantees the transfer of a minimum of 36-40 semester credit hours of specified courses in English, mathematics, arts and humanities, social sciences and natural and physical sciences from Stark State to any Ohio public college or university and vice versa. For more information about Stark State's transfer module: www.starkstate.edu/transfermodule.

TRANSFER MODULE COURSES	
English and Communications Effective Speaking Interpersonal Communications College Composition Technical Report Writing Business Communication College Composition II	COM121 COM122 ENG124 ENG221 ENG230 ENG231
Mathematics Exploration in Modern Mathematics Statistics College Algebra Trigonometry Precalculus Concepts of Calculus Analytic Geometry and Calculus I Analytical Geometry and Calculus II Analytical Geometry and Calculus III Linear Algebra Ordinary Differential Equations	MTH108 MTH 124, MTH124A and MTH124B MTH125, MTH125A, MTH125B MTH130 MTH135, MTH135A and MTH135B MTH221 MTH 223, MTH223A and MTH223B MTH224 MTH225 MTH226 MTH226 MTH227
Arts and Humanities British Literature: Medieval to 1785 British Literature: To85 to Present Introduction to Shakespeare American Literature: 1865 to Present Major Modern Writers Art History II US History II: To 1877 US History II: To 1877 Western Civilization: to 17th Century Western Civilization: from 17th Century Ethics Understanding Architecture + Art Survey + Art History II: Ancient and Medieval Art+ Art History II: Renaissance to Modern Art+ Great Books I + Great Books I + Great Books II+ The Understanding of Music + Music as a World Phenomenon+ Interpreting the Black Experience I + Interpreting the Black Experience II +	ENG 233 ENG 234 ENG 235 ENG 236 ENG 237 ENG241 ARTH22007 HIS 121 HIS 122 HIS221 HIS222 PHL122 ARCH10001 ARTH2001 ARTH2001 ARTH20006 ARTH22007 ENG22071 ENG22072 MUS22111 MUS22121 PAS233001 PAS23002
Social Science General Psychology Psychology of Adjustment Human Growth and Development Industrial/Organizational Psychology Social Psychology Abnormal Psychology Political Science Basic Economics Microeconomics Macroeconomics Sociology Society and Technology Dynamics of the Family Cultural Diversity	PSY121 PSY122 PSY123 PSY124 PSY220 PSY221 PSC121 BUS122 BUS221 BUS222 SOC121 SOC122 SOC123 SOC225
Natural and Physical Science Introduction to Anatomy & Physiology Anatomy and Physiology I Anatomy and Physiology II Science, Energy and the Environment Human Biology Climate Studies Meteorology Ocean Studies General Biology I General Biology I Principles of Microbiology General Genetics Cell and Molecular Biology Introduction to Chemistry General, Organic and Biological Chemistry I General Chemistry I General Chemistry II Forensic Chemistry II Forensic Chemistry II Forganic Chemistry II Forganic Chemistry II Ecology Physical Geology Physical Geology Physics I Physics II Astronomy General Physics I with Calculus	BI0101 BI0121 BI0122 BI0126 BI0127 BI0128 BI0129 BI0130 BI0141 BI0221 BI0221 BI0221 BI0242 CHM101 CHM121, CHM121A and CHM121B CHM122 CHM141, CHM141A and CHM141B CHM122 CHM141, CHM141A and CHM141B CHM22 CHM205 CHM241 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM241 CHM242 CHM242 CHM241 CHM242 CHM

<sup>+</sup> Indicates courses offered at Kent State - Stark campus For the Transfer Module in chart form, <u>www.starkstate.edu/transfermodul</u>

PHY221

PHV222

General Physics I with Calculus

General Physics II with Calculus

# Drug Free Schools AND COMMUNITIES ACT AMENDMENTS OF 1989 POLICY

#### **Effects of Occasional and Extended Use**

Impotence and infertility; high blood pressure; heart attacks; strokes; cirrhosis of the liver; cancer of the liver, stomach, esophagus or larynx; stomach ulcers; colitis; fetal alcohol syndrome; premature aging; birth defects; slowed reaction; slurred speech; unconsciousness.

#### **Criminal Sanctions/Penalties**

- Purchase under 21: Maximum fine of \$1,000.
- Possess or consume under 21: Maximum fine of \$100.
- Open container violation: Maximum fine of \$1,000.
- · Consumption in a motor vehicle: Maximum confinement of 30 days.

#### **MARIJUANA**

#### **Effects of Occasional and Extended Use**

Chronic lung cancer, brain damage, high blood pressure, diminished immunity, premature aging, impairment of memory, diminished motor skills, birth defects, fetal alcohol syndrome, mood swings, loss of ambition, increased apathy, decline in school and work performance.

#### **Criminal Sanctions/Penalties**

- Unlawful possession of use: Maximum penalties, depending on amount, may result in fine of \$5,000 and/or maximum confinement of 10 years.
- Sell, offer to sell, or distribute for sale: Maximum fine of \$7,500 and/or maximum confinement of 25 years.

#### NARCOTICS: COCAINE, CRACK COCAINE

#### **Effects of Occasional and Extended Use**

Seizures, stroke, cardiac or respiratory arrest, convulsions, delirium and paranoia, insomnia, anxiety, irritability, nasal problems, powerful addiction, disorientation.

#### **Criminal Sanctions/Penalties**

- Possession or use: Ranges from rehabilitation programs to substantial years of confinement and fines.
- Sell, offer to sell, and distribute for sale: Penalty determined by the amount
  of substance, with fines in large amounts (exceeding \$1,000,000) and life
  imprisonment.

#### NARCOTICS: HEROIN, OPIUM, MORPHINE

#### **Effects of Occasional and Extended Use**

Cardiac arrest, vein inflammation, insomnia, serum hepatitis, convulsions, skin abscesses, death, physical dependence, difficulty breathing, nausea, constricted pupils, panic.

#### **Criminal Sanctions/Penalties**

- Possession or use: Ranges from rehabilitation programs to substantial years of confinement and fines.
- Sell, offer to sell, and distribute for sale; Penalty determined by the amount
  of substance, with fines in large amounts (exceeding \$1,000,000) and life
  imprisonment.

#### NARCOTICS: OTHER CONTROLLED SUBSTANCES (LSD, PCP)

#### **Effects of Occasional and Extended Use**

Hallucinations, distortion of senses, memory loss, disruption of motor skills, permanent cognitive damage, bizarre behavior, severe disorientation.

#### **Criminal Sanctions/Penalties**

- Possession or use: Ranges from rehabilitation programs to substantial years of confinement and fines.
- Sell, offer to sell, and distribute for sale; Penalty determined by the amount
  of substance, with fines in large amounts (exceeding \$1,000,000) and life
  imprisonment.

## NARCOTICS: DEPRESSANTS (BARBITURATES AND TRANQUILIZERS)

#### **Effects of Occasional and Extended Use**

Death, coma, altered perception, physical dependence, dangerous withdrawal symptoms, staggered walk, difficulty breathing, slurred speech, psychological dependence.

#### **Criminal Sanctions/Penalties**

- Possession or use: Ranges from rehabilitation programs to substantial years of confinement and fines.
- Sell, offer to sell, and distribute for sale; Penalty determined by the amount
  of substance, with fines in large amounts (exceeding \$1,000,000) and life
  imprisonment.

Note: Distribution of controlled substances in or near schools and colleges can result in penalties twice the regular for the same offense. Trafficking in drugs can result in forfeiture of property including motor vehicles, vessels, money, real property and other personal property.

#### **COLLEGE SANCTIONS**

Students — The unlawful use, possession, sale, manufacture, or distribution of drugs and alcohol subjects any student discipline pursuant to established College procedures and to sanctions up to and including suspension or dismissal from the College. Any student violating this policy or otherwise engaging in illegal conduct will also be referred for criminal prosecution.

College employees — Under the influence, possession, or use, furnishing to a minor: Sanctions up to and including termination. Any employee engaging in the illegal use, possession, sale, manufacture, or distribution of drugs and alcohol will be subject to disciplinary procedures outlined in the Policy and Procedure Manual with sanctions up to and including termination from the College.

#### SUPPORT AND RESOURCES

Twelve Step programs are self-help groups based on the spiritual concepts of Alcoholics Anonymous. They are often used as inpatient and outpatient treatment aftercare.

#### Some Twelve Step Programs available

- Adult Children of Alcoholics
- Alcoholics Anonymous
- Co-dependency Anonymous
- Cocaine Anonymous
- Narcotics Anonymous
- Overeater Anonymous

These local information and referral agencies can give you information about assessment, treatment and support resources:

- Alcohol and Drug Assistance 330-453-8811
- Crisis Intervention Center 330-452-6000 or 1-800-956-6630
- Stark State College Security Department
- Interfaith Campus Ministry
- Stark State College counseling services -330-494-6170, Ext. 4219
- Quest Recovery and Prevention Services 330-453-8252

#### SSC CONCEALED WEAPONS POLICY

The use, possession or carrying of a handgun or other weapon by any person who is not a professional law enforcement officer on College property is prohibited and in violation of state law. In summary, the Stark State College concealed weapons policy states, (as of March 21, 2017):

A) Except as provided in paragraph B below, the use, possession or carrying of a firearm or other weapon on property owned or leased by the College, by any person other than a College Security Officer or qualified law enforcement officer as defined in Section 2901.01(A)(11) of the Ohio Revised Code, is prohibited and in violation of State Law.

B) Pursuant to Ohio Revised Code Section 2923.126 (B)(5), any person licensed to carry a concealed handgun may have a handgun on property owned or leased by the College ONLY if it is in a locked motor vehicle or the licensee is in the immediate process of placing the handgun in a locked motor vehicle.

To view the College's official concealed weapons policy in its entirety, visit www.starkstate.edu/policies and click the Complete P & P link.

## ADMINISTRATIVE SERVICES, LEGAL ASSISTING & COURT REPORTING



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



## The ca

# ASSOCIATE OF APPLIED BUSINESS LEGAL ASSISTING

2021 Catalog

Effective Summer 2020

2105

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT127	Word Processing – Microsoft Word^	3	ITD100 or Proficiency	
AOT129	Keyboarding Skill Building	1	AOT121	
AOT130	Editing, Proofreading and Language Skills	3		
AOT224	Legal Office Procedures ▲+	3	AOT121 and AOT130	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
AOT235	Legal Research and Writing ▲-	3		
AOT237	Legal Office Applications ▲-	3	AOT239 and AOT224	
AOT239	Legal Transcription ▲+	3	AOT130 and pre-co-AOT129	
JCR131	Legal Terminology ▲+	3		
PSC122	Introduction to Law and the Legal System^▲-	3	IDS102 or Proficiency	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AOT132	Records Management^	3	IDS102 or Proficiency	
AOT232	AOT Practicum+++▲+	2	AOT227 or AOT237 or AOT228	
ACC121	Principles of Accounting	3		
BUS121	Business Administration^	3	IDS102 or Proficiency	
or PSC221	or State and Local Government ▲+	<b>or</b> 3	or PSC121	
COM121	Effective Speaking	3	150121	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD108	Microsoft Outlook^	1	IDS102 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3	-	
or	or Section A.C.	or	Check for prerequisites	
MTH124	Statistics <sup>Λ</sup> Ω	3 3		
PSC121 PSC123	Political Science Government and Legal Ethics^ +	3	IDC102 or Proficion	
PSC123	Select one (1) Arts & Humanities Elective		IDS102 <b>or</b> Proficiency	
	from the list below <sup>1</sup>	<u>3</u>	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	62		

<sup>^</sup>Based on SSC placement score

23

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>+++</sup>Legal Assisting should complete AOT237; AOP students should take AOT227; AOP Virtual students should take AOT228

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

Effective Summer 2020

#### **LEGAL ASSISTING**

2105

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

On Dunfainner	
or Proficiency	
AOT130 Editing, Proofreading and Language Skills 3 AOT121 Keyboarding/Formatting^ 3 AOT101 or Proficie	
PSC122 Introduction to Law and the Legal System <sup>^</sup> ▲- 3 IDS102 <b>or</b> Proficient AOT127 Word Processing – Microsoft Word <sup>^</sup> 3 ITD100 or Proficient ITD100 or	
AOT127 Word Processing – Microsoft Word* <u>5</u> 11D100 of Proficies  16	псу
Second Semester	
JCR131 Legal Terminology ▲+ 3	
AOT129 Keyboarding Skill Building 1 AOT121	
AOT239 Legal Transcription ▲+ 3 AOT130 and	
pre-co-AOT129	)
AOT224 Legal Office Procedures ▲+ 3 AOT121 and AOT	
AOT132 Records Management <sup>^</sup> 3 IDS102 <b>or</b> Proficient	
MTH108 Explorations in Modern Mathematics^ 3	,
or or Check for prerequis	sites
MTH124 Statistics $\Omega$ $\underline{3}$	
$\overline{16}$	
Third Semester	
AOT226 Spreadsheet - Microsoft Excel <sup>^</sup> 3 ITD100 <b>or</b> Proficie	
AOT237 Legal Office Applications ▲- 3 AOT239 and AOT.	224
PSC121 Political Science 3	
AOT235 Legal Research and Writing ▲- 3	
ITD108 Microsoft Outlook^ 1 IDS102 <b>or</b> Proficien	ncy
ACC121 Principles of Accounting $\underline{3}$	
16	
Fourth Semester	
COM121 Effective Speaking 3	
BUS121 Business Administration <sup>^</sup> 3 IDS102 <b>or</b> Proficient	ncy
or or or	
PSC221 State and Local Government ▲+ 3 PSC121	7
AOT232 AOT Practicum+++ $\blacktriangle$ + 2 AOT227 or AOT23 AOT228	/ or
PSC123 Government and Legal Ethics <sup>^</sup> ▲+ 3 IDS102 <b>or</b> Proficient	ncy
Select one (1) Arts & Humanities Elective from the list below $\frac{3}{2}$ Check for prerequis	sites
14	
TOTAL CREDITS 62	

<sup>^</sup>Based on SSC placement score

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>+++</sup>Legal Assisting should complete AOT237; AOP students should take AOT227; AOP Virtual students should take AOT228

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122



# ONE-YEAR CERTIFICATE LEGAL ASSISTING

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

2106

WAP

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT127	Word Processing – Microsoft Word^	3	ITD100 or Proficiency	
AOT129	Keyboarding Skill Building	1	AOT121	
AOT130	Editing, Proofreading, and Language Skills	3		
AOT224	Legal Office Procedures ▲+	3	AOT121 and AOT130	
AOT237	Legal Office Applications ▲-	3	AOT239 and AOT224	
AOT239	Legal Transcription ▲+	3	AOT130 and pre-co-AOT129	
JCR131	Legal Terminology ▲+	3		
	Total	22		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108 or MTH124	Explorations in Modern Mathematics^ or Statistics^ Ω	3 <b>or</b> 3	Check for prerequisites	
PSC123	Government and Legal Ethics^▲+	3	IDS102 or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	13		
	TOTAL CREDIT HOURS	35		

<sup>^</sup>Based on SSC placement score

25

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

# ONE-YEAR CERTIFICATE LEGAL ASSISTING

2106

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
AOT121	Keyboarding/Formatting	3	AOT101 or Proficiency
AOT130	Editing, Proofreading and Language Skills	3	
AOT127	Word Processing – Microsoft Word <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		13	
Second Semester			
PSC123	Government and Legal Ethics^▲+	3	IDS102 or Proficiency
JCR131	Legal Terminology ▲+	3	
AOT224	Legal Office Procedures ▲+	3	AOT121 and AOT130
AOT129	Keyboarding Skill Building	1	AOT121
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	Check for prerequisites
MTH124	Statistics <sup>^</sup> Ω	3	
AOT239	Legal Transcription ▲+	<u>3</u>	AOT130 and pre-co-AOT129
		16	
Third Semester			
AOT237	Legal Office Applications ▲-	3	AOT239 and AOT224
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	<u>3</u>	Check for prerequisites
	•	6	
	TOTAL CREDITS	35	

<sup>^</sup>Based on SSC placement score

26

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122



# ASSOCIATE OF APPLIED BUSINESS ADMINISTRATIVE OFFICE PROFESSIONAL

2021 Catalog

Effective Summer 2020

2120



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT107	Digital Technologies	1	ITD100 or Proficiency	
AOT110	Introduction to Administrative Assisting	1		
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT127	Word Processing – Microsoft Word <sup>^</sup>	3	ITD100 or Proficiency	
AOT128	Document Development and Website Maintenance ▲+	3	ITD100 or Proficiency	
AOT129	Keyboarding Skill Building	1	AOT121	
AOT130	Editing, Proofreading and Language Skills	3		
AOT134	Form Design Essentials	1	AOT127	
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency	
AOT236	Database Applications – Microsoft Access^ ▲+	3	ITD100 or Proficiency	
ACC121	Principles of Accounting	3	•	
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
ITD108	Microsoft Outlook^	1	IDS102 <b>or</b> Proficiency	
ITD122	Computer Applications for Professionals*	3	ITD100 <b>or</b> Proficiency	
	Total	32	,	
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	2 3333, 2 333
ACC130	Business Law and Ethics	3	3	
AOT132	Records Management <sup>^</sup>	3	IDS102 <b>or</b> Proficiency	
AOT227	Administrative Procedures and Systems ▲-	3	(ITD122 or AOT127) <b>and</b> AOT130 <b>and</b> (AOT121 or AOT129)	
AOT232	AOT Practicum+++▲+	2	AOT227 or AOT237 or AOT228	
BUS121	Business Administration^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3	•	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3	•	
or	or	or	Check for prerequisites	
MTH124	Statistics <sup>^</sup> Ω	3		
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
or	or	or	or	
SOC121	Sociology^	3	IDS102 or Proficiency	
	Total	30		
	TOTAL CREDIT HOURS	62		

<sup>^</sup>Based on SSC placement score.

27

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>+++</sup>Legal Assisting should complete AOT237; AOP students should take AOT227; AOP Virtual students should take AOT228

<sup>\*</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

 $<sup>\</sup>blacktriangle + Spring only courses. Please see your academic advisor for availability.$ 

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

#### ADMINISTRATIVE OFFICE PROFESSIONAL

2120

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101	Student Success Seminar^^	Credit Hours	Pre- and Co-requisites Take first semester
AOT110	Introduction to Administrative Assisting	1	Take first semester
AOT110 AOT130	Editing, Proofreading and Language Skills	3	
AOT130 AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency
ITD122	Computer Applications for Professionals*	3	ITD100 or Proficiency
IMT122	Graphic Arts Design	3	ITD100 or Proficiency
AOT127	Word Processing – Microsoft Word^	<u>3</u>	ITD100 or Proficiency
	word Processing Wilerosoft Word	<u>-</u> 17	11D 100 of 11offciency
Second Semester		_	
BUS121	Business Administration^	3	IDS102 or Proficiency
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or
			Proficiency
AOT134	Form Design Essentials	1	AOT127
AOT129	Keyboarding Skill Building	1	AOT121
AOT128	Document Development and Website	3	ITD100 or Proficiency
AOT132	Maintenance ▲ +	3	IDC102 on Proficiency
	Records Management <sup>A</sup>	3	IDS102 or Proficiency
MTH108	Explorations in Modern Mathematics^		Chack for managisites
or MTH124	or Statistics^Ω	or	Check for prerequisites
M11 11 24	Statistics '\Q	3 17	
Third Semester		17	
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
AOT227	Administrative Procedures and Systems <b>A</b> -	3	(ITD122 or AOT127) and
A01221	Administrative Procedures and Systems -	3	AOT130 <b>and</b> (AOT121) or
			AOT129)
ACC130	Business Law and Ethics	3	1101125)
	Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
or	or	or	or
SOC121	Sociology^	3	IDS102 or Proficiency
AOT107	Digital Technologies	<u>1</u>	ITD100 or Proficiency
	6	<del>-</del> 16	
Fourth Semester			
ACC121	Principles of Accounting	3	
COM121	Effective Speaking	3	
AOT232	AOT Practicum+++ ▲+	2	AOT227 or AOT237 or AOT228
AOT236	Database Applications – Microsoft Access^▲+	3	ITD100 or Proficiency
ITD108	Microsoft Outlook^	<u>1</u>	IDS102 or Proficiency
		12	•
d CCC -1t	TOTAL CREDITS	62	

<sup>^</sup>Based on SSC placement score.

 $\Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

28

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>+++</sup>Legal Assisting should complete AOT237; AOP students should take AOT227; AOP Virtual students should take AOT228

<sup>\*</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

**2021 Catalog**Effective Summer 2020

### **ADMINISTRATIVE OFFICE PROFESSIONAL**

2120



# ONE-YEAR CERTIFICATE ADMINISTRATIVE OFFICE PROFESSIONAL

2021 Catalog

Effective Summer 2020

2122



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT107	Digital Technologies	1	ITD100 or Proficiency	
AOT110	Introduction to Administrative Assisting	1		
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT127	Word Processing – Microsoft Word^	3	ITD100 or Proficiency	
AOT130	Editing, Proofreading and Language Skills	3		
AOT132	Records Management^	3	IDS102 or Proficiency	
AOT134	Form Design Essentials	1	AOT127	
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 or Proficiency	
AOT227	Administrative Procedures and Systems ▲ -	3	(ITD122 or AOT127) <b>and</b> AOT130 <b>and</b> (AOT121 or AOT129)	
ITD108	Microsoft Outlook	1	IDS102 or Proficiency	
ITD122	Computer Applications for Professionals^*	3	ITD100 or Proficiency	
	Total	25		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
SOC225	Cultural Diversity	3	,	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
or SOC121	or Sociology^	<b>or</b> 3	or IDS102 or Proficiency	
	Total	10	,	
	TOTAL CREDIT HOURS	35		

<sup>^</sup>Based on SSC placement score

30

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

# ONE-YEAR CERTIFICATE ADMINISTRATIVE OFFICE PROFESSIONAL

2122

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
AOT110	Introduction to Administrative Assisting	1	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
ITD122	Computer Applications for Professionals <sup>↑</sup> ♣	3	ITD100 or Proficiency
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency
AOT107	Digital Technologies	1	ITD100 or Proficiency
AOT127	Word Processing – Microsoft Word^	<u>3</u>	ITD100 or Proficiency
		15	
Second Semester (Summer)			
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
AOT130	Editing, Proofreading and Language Skills	3	
ITD108	Microsoft Outlook	<u>1</u>	IDS102 or Proficiency
		7	
Third Semester			
SOC225	Cultural Diversity	3	
AOT132	Records Management <sup>^</sup>	3	IDS102 or Proficiency
AOT134	Form Design Essentials	1	AOT127
			(ITD122 or AOT127) and
AOT227	Administrative Procedures and Systems ▲-	3	AOT130 <b>and</b> (AOT121 or AOT129)
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
or	or	or	or
SOC121	Sociology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		13	
	TOTAL CREDITS	35	

31

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

# Stark State

# MY ACADEMIC PLAN

#### ASSOCIATE OF APPLIED BUSINESS

# ADMINISTRATIVE OFFICE PROFESSIONAL - MANAGEMENT MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2123

2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT110	Introduction to Administrative Assisting	1		
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT127	Word Processing – Microsoft Word <sup>^</sup>	3	ITD100 or Proficiency	
AOT130	Editing, Proofreading and Language Skills	3		
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency	
AOT236	Database Applications-Microsoft Access^▲+	3	ITD100 or Proficiency	
ACC121	Principles of Accounting	3		
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)	
ITD140	Digital Project Management ▲ -	3	ITD100 or Proficiency	
MGT121	Principles of Management	3	BUS121 or ENT120	
TDS123	Team Building Dynamics	3		
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AOT132	Records Management <sup>^</sup>	3	IDS102 or Proficiency	
AOT227	Administrative Procedures and Systems^▲-	3	(ITD122 or AOT127) and AOT130 and (AOT121 or AOT129)	
AOT232	AOT Practicum+++▲+	2	AOT227 or AOT237 or AOT228	
BUS121	Business Administration^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD108	Microsoft Outlook^	1	IDS102 or Proficiency	
MGT221	Supervision	3	MGT121	
MTH108	Explorations in Modern Mathematics^	3		
or	or	or	Check for prerequisites	
MTH124	Statistics <sup>^</sup> Ω	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
or	or	or	or	
SOC121	Sociology^	3	IDS102 or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	<u>3</u>	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	62		

<sup>^</sup>Based on SSC placement score

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>+++</sup>Legal Assisting should complete AOT237; AOP students should take AOT227; AOP Virtual students should take AOT228

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

#### 2021 Catalog

Effective Summer 2020

# ADMINISTRATIVE OFFICE PROFESSIONAL - MANAGEMENT MAJOR

2123

#### PART-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for part-time associate degree students who plan to finish in eight semesters.

nish in eight seme	sters.		
First Semester		Credit Hours	<u>Pre- and Co-requisites</u>
SSC101	Student Success Seminar^^	1	Take first semester
AOT110	Introduction to Administrative Assisting	1	J
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
			CO-ENGO24 of CO-ENGO11 of Floriciency
AOT130	Editing, Proofreading and Language Skills	<u>3</u> <b>8</b>	
		8	
Second Semester			
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency
TDS123	Team Building Dynamics	3	•
BUS121	Business Administration <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
DC5121	Dusiness Administration	9	1DS102 of 1 foliciency
mart 1.0		9	
Third Semester			
ACC121	Principles of Accounting	3	
AOT127	Word Processing – Microsoft Word <sup>^</sup>	3	ITD100 or Proficiency
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		9	
Fourth Semester			
	M' 6.0 d 14	1	IDC102 D . C .
ITD108	Microsoft Outlook^	1	IDS102 or Proficiency
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	Check for prerequisites
MTH124	Statistics <sup>^</sup> Ω	3	· · · ·
MGT121	Principles of Management	<u>3</u>	BUS121 or ENT120
	1 Imelpies of Management	7	200121 01 21(1120
E:64 C		,	
Fifth Semester	4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	2	(TED 100 + OF 107)
AOT227	Administrative Procedures and Systems <sup>^</sup> ▲-	3	(ITD122 or AOT127) and
			AOT130 and
			(AOT121 or AOT129)
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
or	or	or	or
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
ITD140	Digital Project Management ▲ -	<u>3</u>	ITD100 or Proficiency
		9	
Sixth Semester			
Select one (1) Art.	s & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites
MGT221	Supervision	3	MGT121
AOT236	Database Applications Microsoft Access^ +	<u>3</u>	ITD100 or Proficiency
AO1230	Database Applications wherosoft Access	<u>2</u>	11D100 of 11offcleficy
		9	
Seventh Semester			
COM121	Effective Speaking	3	
AOT132	Records Management <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
	č	<del>-</del> 6	
Eighth Semester		v	
	A O.T. D4:       A	2	AOT227 AOT227 AOT220
AOT232	AOT Practicum+++▲+	2	AOT227 or AOT237 or AOT228
ACC229	Computerized Accounting Applications	<u>3</u>	(AOT226 or ITD122) <b>and</b>
			(ACC121 or ACC132)
		5	
	TOTAL CREDITS	62	

<sup>\*</sup>Check front page for footnotes



# MAP

#### ASSOCIATE OF APPLIED BUSINESS

# ADMINISTRATIVE OFFICE PROFESSIONAL - VIRTUAL OFFICE PROFESSIONAL MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2124

2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT107	Digital Technologies	1	ITD100 or Proficiency	
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT127	Word Processing – Microsoft Word <sup>^</sup>	3	ITD100 or Proficiency	
AOT128	Document Development and Website Maintenance ▲+	3	ITD100 <b>or</b> Proficiency	
AOT130	Editing, Proofreading and Language Skills	3		
AOT140	Virtual Assistant Fundamentals ▲ -	1	ITD100 or Proficiency	
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency	
AOT228	Virtual Administrative Assistant Procedures ▲-	3	AOT140	
AOT232	AOT Practicum+++ ▲+	2	AOT227 or AOT237 or AOT228	
AOT236	Database Applications – Microsoft Access^ ▲+	3	ITD100 or Proficiency	
ACC121	Principles of Accounting	3		
ITD122	Computer Applications for Professionals^*	3	ITD100 or Proficiency	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)	
AOT134	Form Design Essentials	1	AOT127	
BUS121	Business Administration^	3	IDS102 or Proficiency	
COM122	Interpersonal Communication	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
ITD108	Microsoft Outlook^	1	IDS102 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3		
or	or	or	Check for prerequisites	
MTH124	Statistics <sup>^</sup> Ω	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
or SOC121	or Sociology^	<b>or</b> 3	<b>or</b> IDS102 <b>or</b> Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	<u>3</u>	Check for prerequisites	
	Total	30		
	TOTAL CREDIT HOURS	61		i

<sup>^</sup>Based on SSC placement score

 $\Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>+++</sup>Legal Assisting should complete AOT237; AOP students should take AOT227; AOP Virtual students should take AOT228

<sup>\*</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

Effective Summer 2020

## ADMINISTRATIVE OFFICE PROFESSIONAL - VIRTUAL OFFICE PROFESSIONAL MAJOR

2124

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

in two years.			
First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or
AOT130	Editing, Proofreading and Language Skills	3	Proficiency
AOT130 AOT121		3	AOT101 on Duoficion av
	Keyboarding/Formatting^		AOT101 or Proficiency
ITD122	Computer Applications for Professionals <sup>↑</sup> **	3	ITD100 or Proficiency
AOT140	Virtual Assistant Fundamentals ▲-	1	ITD100 or Proficiency
AOT127	Word Processing – Microsoft Word <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		17	
Second Semester			
BUS121	Business Administration <sup>^</sup>	3	IDS102 or Proficiency
ACC121	Principles of Accounting	3	
AOT128	Document Development and Website	2	ITD100 on Doofieienee
AO1128	Maintenance ▲+	3	ITD100 <b>or</b> Proficiency
ENT120	Entrepreneurship <sup>^</sup>	3	IDS102 or Proficiency
MTH108	Explorations in Modern Mathematics^	3	•
or	or	or	Check for prerequisites
MTH124	Statistics <sup>^</sup> Ω	<u>3</u>	V 1 1
		<u>-</u> 15	
Third Semester			
AOT107	Digital Technologies	1	ITD100 or Proficiency
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
AOT228	Virtual Administrative Assistant Procedures ▲-	3	AOT140
ACC130	Business Law and Ethics	3	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
or	or	or	or
SOC121	Sociology^	3	IDS102 or Proficiency
		_	(AOT226 or ITD122) and
ACC229	Computerized Accounting Applications	<u>3</u>	(ACC121 or ACC132)
		16	(1100121 011100102)
Fourth Semester		10	
	& Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites
AOT134	Form Design Essentials	1	AOT127
COM122	Interpersonal Communication	3	A01127
AOT232	AOT Practicum+++ <b>A</b> +	2	AOT227 or AOT237 or AOT228
AOT236	Database Applications – Microsoft Access^ ▲+	3	ITD100 or Proficiency
ITD108	Microsoft Outlook^	12	IDS102 or Proficiency
	MOTAL OPERING	13	
1 000 1	TOTAL CREDITS	61	

<sup>^</sup>Based on SSC placement score

 $\Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>+++</sup>Legal Assisting should complete AOT237; AOP students should take AOT227; AOP Virtual students should take AOT228

<sup>\*</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122



## ASSOCIATE OF APPLIED BUSINESS TRAINING & DEVELOPMENT TECHNOLOGY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

2128



Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD109	Presentation Technologies for the Trainer^	1	ITD100 or Proficiency	
TDS121	Introduction to Training and Development	3		
TDS122	Training Logistics	1		
TDS123	Team Building Dynamics	3		
TDS124	Instructional Design for the Trainer	3	TDS121	
TDS220	Measuring and Evaluating Training	3	pre-co-TDS122	
TDS221	Introduction to eLearning Tools	1		
TDS222	Creating and Implementing Online Training	3	TDS221	
TDS223	ADDIE Capstone Course	3	TDS124	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AOT130	Editing, Proofreading and Language Skills	3		
BUS121	Business Administration^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
COM227	Intercultural Communication	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD108	Microsoft Outlook^	1	IDS102 or Proficiency	
ITD123	MAC Concepts	1		
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 or Proficiency	
PHL122	Ethics	3		
PSY124	Industrial/Organizational Psychology	3		
SOC121	Sociology^	3	IDS102 or Proficiency	
	Total	30		
	TOTAL CREDIT HOURS	60		

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<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

#### **TRAINING & DEVELOPMENT TECHNOLOGY**

2128

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ITD108	Microsoft Outlook^	1	IDS102 or Proficiency
TDS121	Introduction to Training and Development	3	
TDS122	Training Logistics	1	
TDS221	Introduction to eLearning Tools	1	
COM227	Intercultural Communication	3	
TDS123	Team Building Dynamics	<u>3</u>	
		13	
Second Semester			
ITD109	Presentation Technologies for the Trainer^	1	ITD100 or Proficiency
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
AOT130	Editing, Proofreading and Language Skills	3	•
BUS121	Business Administration^	3	IDS102 or Proficiency
TDS124	Instructional Design for the Trainer	<u>3</u>	TDS121
		16	
Third Semester			
TDS220	Measuring and Evaluating Training	3	pre-co-TDS122
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
COM121	Effective Speaking	3	
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
TDS222	Creating and Implementing Online Training	<u>3</u>	TDS221
		15	
Fourth Semester			
ENG221	Technical Report Writing	3	ENG124
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022
			or Proficiency
PSY124	Industrial/Organizational Psychology	3	·
PHL122	Ethics	3	
ITD123	MAC Concepts	1	
TDS223	ADDIE Capstone Course	<u>3</u>	TDS124
	-	16	
	TOTAL CREDITS	<b>60</b>	
	TOTAL CREDITS	60	

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<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester



### ASSOCIATE OF APPLIED BUSINESS JUDICIAL COURT REPORTING MAJOR

Effective Summer 2020

2021 Catalog

2158

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number		Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
JCR1001	Clark	Realtime Theory I (8-week)	3		
JCR1002	Stark	Realtime Theory II (8-week)	3	JCR1001	
JCR1003	Clark	Realtime Applications (8-week)	3	JCR1002	
JCR1101	Clark	Skill Building I (8-week)	3	JCR1003	
JCR1102	Stark	Skill Building II (8-week)	3	JCR1101	
JCR2103	Clark	Skill Building III (8-week)	3	JCR1102	
JCR2104	Stark	Skill Building IV (8-week)	3	JCR2103	
JCR2105	Clark	Skill Building V (8-week)	3	JCR2104	
JCR2106	Stark	Skill Building VI (8-week)	3	JCR2105	
JCR2200	Clark	Realtime Business Procedures	3	MTH1060	
JCR2300	Clark	CAT/Transcription Production	2	JCR2200	
JCR2400	Stark	JCR Internship	2	Department Chair approval	
		Total	34		
NON-TECH Course Number		Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FYE1100	Clark	College Success	1		
or SSC101	<b>or</b> Stark	or Student Success Seminar^^	<b>or</b> 1	Take first semester	
AOT121	Stark	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT130	Stark	Editing, Proofreading and Language Skills	3		
BIO125	Stark	Medical Terminology	3		
ENG1111	Clark	English I	3	CPE 0300 B↑ or CPE 0400 C↑; Pre/Co-req; CPE 0200	
ENG2211	Clark	Business Communication	3	ENG1111 or OAD1105	
ITD122	Stark	Computer Applications for Professionals^*	3	ITD100 or Proficiency	
JCR131	Stark	Legal Terminology ▲+	3		
MTH1060	Clark	Business Math	3		
PHL122	Stark	Ethics	3		
	Clark	Social/Behavioral Science Elective	3		
		Total	31		
		TOTAL CREDIT HOURS	65		

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<sup>^</sup>Based upon SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122. ↑ (or better)

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

#### JUDICIAL COURT REPORTING MAJOR

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### Software/Machine

A computerized stenograph machine and Case Catalyst student version must be purchased prior to beginning this program. Please contact an academic advisor in the JCR program for more information.

First Semester	College	Name of Course	Credit Hours	Pre- and Co-requisites
FYE1100	Clark	College Readiness	1	Take first semester
or	or	or	or	or
SSC101	Stark	Student Success Seminar^^	1	Take first semester
ENG1111	Clark	English 1	3	CPE 0300 B↑ or CPE 0400 C↑; Pre/Co-req; CPE 0200
AOT121	Stark	Keyboarding/Formatting^	3	AOT101 or Proficiency
ITD122	Stark	Computer Applications for Professionals^*	3	ITD100 or Proficiency
JCR1001	Clark	Realtime Theory I (8-week)	3	
JCR1002	Stark	Realtime Theory II (8-week)	<u>3</u>	JCR1001
			16	
Second Semester				
JCR1003	Clark	Realtime Theory Applications (8-week)	3	JCR1002
JCR1101	Clark	Skill Building I (8 week)	3	JCR1003
JCR131	Stark	Legal Terminology ▲+	3	
AOT130	Stark	Editing, Proofreading and Language Skills	3	
MTH1060	Clark	Business Math	<u>3</u>	
			15	
Summer Semester	G		2	ICD 1101
JCR1102	Stark	Skill Building II (8 week)	3	JCR1101
BIO125	Stark	Medical Terminology	3 <u>3</u> <b>6</b>	
Third Semester			O	
JCR2103	Clark	Skill Building III (8 week)	3	JCR1102
JCR2103 JCR2104	Stark	Skill Building IV (8-week)	3	JCR2103
ENG2211	Clark	Business Communication	3	ENG1111 or OAD1105
JCR2200	Clark	Realtime Business Procedures	3	MTH1060
PHL122	Stark	Ethics	<u>3</u>	1,11111000
1112122	S <b>-441-1</b>	Zwies	15	
Fourth Semester				
JCR2105	Clark	Skill Building V (8-week)	3	JCR2104
JCR2106	Stark	Skill Building VI (8-week)	3	JCR2105
JCR2400	Stark	JCR Internship	2	Department Chair approval
JCR2300	Clark	CAT/Transcript Production	2	JCR2200
	Clark	Social/Behavioral Science Elective	<u>3</u>	
			13	

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^Based upon SSC placement score.

^^To promote student success, this course should be taken in the first semester.

**Successful** completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122. ↑ (or better)

TOTAL CREDITS

▲+Spring only courses. Please see your academic advisor for availability.

Revised 1-2020

**65** 



### WACADENIC PLAN

## CAREER ENHANCEMENT CERTIFICATE ADMINISTRATIVE SERVICES AND OFFICE APPLICATIONS

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

- FORMATTING AND OFFICE SKILLS

2127

2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Digital Media and Administrative Technologies Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency	
AOT129	Keyboarding Skill Building	1	AOT121	
AOT130	Editing, Proofreading, and Language Skills	3		
AOT132	Records Management^	3	IDS102 or Proficiency	
AOT127	Word Processing - Microsoft Word^	3	ITD100 or Proficiency	
ITD122	Computer Applications for Professionals <sup>^</sup> ♣	3	ITD100 or Proficiency	
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ITD122	Computer Applications for Professionals <sup>^</sup> ♣	3	ITD100 or Proficiency
AOT121	Keyboarding/Formatting^	3	AOT101 or Proficiency
AOT130	Editing, Proofreading, and Language Skills	<u>3</u>	
		9	
Second Semester			
AOT129	Keyboarding Skill Building	1	AOT121
AOT132	Records Management^	3	IDS102 or Proficiency
AOT127	Word Processing - Microsoft Word^	<u>3</u>	ITD100 or Proficiency
		7	
	TOTAL CREDITS	16	

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<sup>^</sup>Based upon SSC placement score

<sup>\*</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122





#### CAREER ENHANCEMENT CERTIFICATE

### TRAINING & DEVELOPMENT TECHNOLOGY -**E-LEARNING SPECIALIST**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2129

2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Digital Media and Administrative Technologies Department

This Career Enhancement Certificate should be taken after the Training & Development Specialist Career Enhancement Certificate (encompassing the core competencies to prepare students for entry level positions). Upon completion, students have the option of obtaining one more Career Enhancement Certificate: Training Software Applications Specialist.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
TDS121	Introduction to Training and Development	3		
TDS124	Instructional Design for the Trainer	3	TDS121	
TDS221	Introduction to eLearning Tools	1		
TDS222	Creating and Implementing Online Training	3	TDS221	
TDS223	ADDIE Capstone Course	3	TDS124	
	TOTAL CREDIT HOURS	13		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
TDS121	Introduction to Training and Development	<u>3</u>	
		3	
Second Semester			
TDS124	Instructional Design for the Trainer	3	TDS121
TDS221	Introduction to eLearning Tools	<u>1</u>	
		4	
Third Semester			
TDS222	Creating and Implementing Online Training	3	TDS221
TDS223	ADDIE Capstone Course	<u>3</u>	TDS124
		6	
	TOTAL CREDITS	13	

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#### CAREER ENHANCEMENT CERTIFICATE

## TRAINING & DEVELOPMENT TECHNOLOGY TRAINING & DEVELOPMENT SPECIALIST

2130

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

This Career Enhancement Certificate encompasses the core competencies to prepare students for entry level positions as a Training & Development Specialist. Upon completion, students have the option of obtaining two more Career Enhancement Certificates: Training Software Applications Specialist and E-Learning Specialist.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM227	Intercultural Communication	3		
ITD108	MS Outlook^	1	IDS102 or Proficiency	
TDS121	Introduction to Training and Development	3		
TDS122	Training Logistics	1		
TDS123	Team Building Dynamics	3		
TDS220	Measuring and Evaluating Training	3	pre-co-TDS122	
	TOTAL CREDIT HOURS	14		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ITD108	MS Outlook^	1	IDS102 or Proficiency
TDS121	Introduction to Training and Development	3	
TDS123	Team Building Dynamics	<u>3</u>	
		7	
Second Semeste	<u>r</u>		
TDS122	Training Logistics	1	
COM227	Intercultural Communication	3	
TDS220	Measuring and Evaluating Training	<u>3</u>	pre-co-TDS122
		7	
	TOTAL CREDITS	14	

42

<sup>^</sup>Based upon SSC placement score





#### CAREER ENHANCEMENT CERTIFICATE

# TRAINING & DEVELOPMENT TECHNOLOGY TRAINING SOFTWARE APPLICATIONS SPECIALIST

**2021 Catalog**Effective Summer 2020

2131

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

This stackable Career Enhancement Certificate should be taken after the Training & Development Specialist Career Enhancement Certificate (encompassing the core competencies to prepare students for entry level positions). Upon completion, students have the option of obtaining one more Career Enhancement Certificate: Training & Development E-Learning Specialist.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency	
ITD109	Presentation Technologies for the Trainer^	1	ITD100 or Proficiency	
ITD123	MAC Concepts	1		
TDS121	Introduction to Training and Development	3		
TDS124	Instructional Design for the Trainer	3	TDS121	
TDS221	Introduction to eLearning Tools	1		
	TOTAL CREDIT HOURS	12		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		<u>Credit Hours</u>	Pre- and Co-requisites
ITD109	Presentation Technologies for the Trainer^	1	ITD100 or Proficiency
TDS121	Introduction to Training and Development	3	•
TDS221	Introduction to eLearning Tools	<u>1</u>	
		5	
Second Semester		Credit Hours	
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
ITD123	MAC Concepts	1	
TDS124	Instructional Design for the Trainer	3	TDS121
	Ç	$\overline{7}$	
	TOTAL CREDITS	12	

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<sup>^</sup>Based upon SSC placement score



### MY ACADEMIC PLAN

#### CAREER ENHANCEMENT CERTIFICATE

## ADMINISTRATIVE SERVICES AND OFFICE APPLICATIONS - DESKTOP PUBLISHING

**2021 Catalog**Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT127	Word Processing – Microsoft Word^	3	ITD100 or Proficiency	
AOT128	Document Development and Website Maintenance ▲+	3	ITD100 or Proficiency	
AOT130	Editing, Proofreading and Language Skills	3		
AOT134	Form Design Essentials	1	AOT127	
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
ITD122	Computer Applications for Professionals^*	3	ITD100 or Proficiency	
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ITD122	Computer Applications for Professionals <sup>^</sup> ♣	3	ITD100 or Proficiency
AOT127	Word Processing - Microsoft Word	3	ITD100 or Proficiency
IMT122	Graphic Arts Design	<u>3</u>	ITD100 or Proficiency
		9	
Second Semester			
AOT128	Document Development and Website Maintenance ▲ +	3	ITD100 or Proficiency
AOT134	Form Design Essentials	1	AOT127
AOT130	Editing, Proofreading and Language Skills	<u>3</u>	
		7	
	TOTAL CREDITS	16	

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- **★**Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122
- ▲+ Spring only courses. Please see your academic advisor for availability.

<sup>^</sup>Based upon SSC placement score



### MACADEMIC PLAN

#### CAREER ENHANCEMENT CERTIFICATE

## JUDICIAL COURT REPORTING - CAPTIONING/CART

Effective Summer 2020

2021 Catalog

2159

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

Course Number		Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ASL121	Stark	Introduction to Deaf Culture Community	3		
JCR2450	Clark	Introduction to Captioning (8-week)	1		
JCR2501	Clark	Basic Captioning/CART (8-week)	3		
JCR2502	Stark	Advanced Captioning/CART (8-week)	3	JCR2501	
JCR2600	Stark	Captioning/CART Internship (8 week)	2	Department Chair approval	
		TOTAL CREDIT HOURS	12		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester	<u>College</u>		Credit Hours	Pre- and Co-requisites
JCR2450	Clark	Introduction to Captioning (8-week)	1	
JCR2501	Clark	Basic Captioning/CART (8-week)	3	
JCR2502	Stark	Advanced Captioning/CART (8-week)	3	JCR2501
JCR2600	Stark	Captioning/CART Internship (8-week)	2	Department Chair approval
ASL121	Stark	Introduction to Deaf Culture Community	3	
		<b>Total Credits</b>	12	

Students who wish to complete the Captioning/CART Career Enhancement Certificate after obtaining the AAB degree in Judicial Reporting must pass the following machine skills to meet CEC requirements: Transcribe a minimum of two 5-minute, two-voice testimony tests with a minimum of 95 percent accuracy, dictated at a minimum speed of 225 wpm; three 5-minute realtime literary tests with a minimum of 96 percent verbatim accuracy, dictated at a minimum of 180 wpm; and write three 15-minute, realtime literary broadcast material takes at 180 wpm (syllabic and/or word count) at 96 percent verbatim accuracy, following NCRA's "What is an Error?" guidelines.

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## Stark State

### MAD

#### CAREER ENHANCEMENT CERTIFICATE

### **ADMINISTRATIVE SERVICES AND OFFICE**

## APPLICATIONS - MICROSOFT APPLICATIONS PROFESSIONAL



Effective Summer 2020

5024

2021 Catalog

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT107	Digital Technologies	1	ITD100 or Proficiency	
AOT127	Word Processing – Microsoft Word^	3	ITD100 or Proficiency	
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 or Proficiency	
AOT236	Database Applications – Microsoft Access^▲+	3	ITD100 or Proficiency	
ITD104	Computer Applications – PowerPoint^	1	ITD100 or Proficiency	
ITD108	Microsoft – Outlook^	1	IDS102 or Proficiency	
ITD140	Digital Project Management ▲ -	3	ITD100 or Proficiency	
	TOTAL CREDIT HOURS	15		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AOT107	Digital Technologies	1	ITD100 or Proficiency
AOT127	Word Processing – Microsoft Word <sup>^</sup>	3	ITD100 or Proficiency
ITD140	Digital Project Management ▲-	3	ITD100 or Proficiency
ITD108	Microsoft – Outlook^	<u>1</u>	IDS102 or Proficiency
		8	
Second Semester			
ITD104	Computer Applications – PowerPoint^	1	ITD100 or Proficiency
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
AOT236	Database Applications – Microsoft Access^ ▲+	<u>3</u>	ITD100 or Proficiency
		7	
	TOTAL CREDITS	15	

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^Based upon SSC placement score

- ▲+ Spring only courses. Please see your academic advisor for availability.
- ▲ Fall only courses. Please see your academic advisor for availability.

### **BUSINESS AND ACCOUNTING**



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



### ASSOCIATE OF APPLIED BUSINESS **ACCOUNTING - CORPORATE MAJOR**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

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Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	Schi, I cui
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC221	Intermediate Accounting I	4	ACC132	
ACC222	Intermediate Accounting II	3	ACC221	
ACC223	Cost Accounting	4	ACC133	
ACC238	Financial Statement Analysis	3	ACC133	
TECHNICAL EL	ECTIVES: Choose two (2) courses			
ACC226	Advanced Accounting	3	pre-co-ACC222	
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)	
ACC232	Governmental and Not-for-Profit Accounting	3	ACC132	
ACC235	Forensic Accounting	3		
ACC240	CMA Exam Part 1 Review Course ▲	3	pre-co-ACC223	
ACC241	CMA Exam Part 2 Review Course ▲	3	pre-co-ACC223	
	Total	32-33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
	Course Title Student Success Seminar^^	Credits	Pre- and Co-Requisites  Take first semester	
Course Number SSC101 ACC130				
Course Number SSC101	Student Success Seminar^^	1		
SSC101 ACC130 ACC225 or ACC237	Student Success Seminar^^  Business Law and Ethics  Auditing  or  Fraud Examination	1 3 4 or 3	Take first semester  pre-co-ACC222  or ACC133	
SSC101 ACC130 ACC225 or	Student Success Seminar^^ Business Law and Ethics Auditing  or	1 3 4 or	pre-co-ACC222 or ACC133 ITD100 or Proficiency	
SSC101 ACC130 ACC225 or ACC237	Student Success Seminar^^ Business Law and Ethics Auditing or Fraud Examination Spreadsheet - Microsoft Excel^ Business Analysis with Algebra^	1 3 4 or 3	Take first semester  pre-co-ACC222  or ACC133	
Course Number	Student Success Seminar^^  Business Law and Ethics  Auditing  or  Fraud Examination  Spreadsheet - Microsoft Excel^  Business Analysis with Algebra^  Microeconomics^	1 3 4 or 3 3 3	pre-co-ACC222 or ACC133 ITD100 or Proficiency (MTH022 or proficiency) and	
SSC101 ACC130 ACC225 or ACC237 AOT226 BUS124	Student Success Seminar^^ Business Law and Ethics Auditing or Fraud Examination Spreadsheet - Microsoft Excel^ Business Analysis with Algebra^	1 3 4 or 3 3 3	Take first semester  pre-co-ACC222 or ACC133  ITD100 or Proficiency (MTH022 or proficiency) and (IDS102 or proficiency) IDS102 or Proficiency	
Course Number	Student Success Seminar^^  Business Law and Ethics  Auditing  or  Fraud Examination  Spreadsheet - Microsoft Excel^  Business Analysis with Algebra^  Microeconomics^	1 3 4 or 3 3 3	pre-co-ACC222 or ACC133 ITD100 or Proficiency (MTH022 or proficiency) and (IDS102 or proficiency)	
SSC101 ACC130 ACC225 or ACC237 AOT226 BUS124 BUS221 COM121	Student Success Seminar^^  Business Law and Ethics  Auditing  or Fraud Examination  Spreadsheet - Microsoft Excel^  Business Analysis with Algebra^  Microeconomics^  Effective Speaking	1 3 4 or 3 3 3 3	pre-co-ACC222 or ACC133 ITD100 or Proficiency (MTH022 or proficiency) and (IDS102 or proficiency) IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency ACC133	
Course Number	Student Success Seminar^^  Business Law and Ethics  Auditing or Fraud Examination   Spreadsheet - Microsoft Excel^  Business Analysis with Algebra^  Microeconomics^ Effective Speaking  College Composition^	1 3 4 or 3 3 3 3 3	pre-co-ACC222 or ACC133 ITD100 or Proficiency (MTH022 or proficiency) and (IDS102 or proficiency) IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency	
SSC101 ACC130 ACC225 or ACC237 AOT226 BUS124 BUS221 COM121 ENG124 FIN220	Student Success Seminar^^  Business Law and Ethics  Auditing or Fraud Examination   Spreadsheet - Microsoft Excel^  Business Analysis with Algebra^  Microeconomics^ Effective Speaking  College Composition^  Business Finance	1 3 4 or 3 3 3 3 3 3	pre-co-ACC222 or ACC133 ITD100 or Proficiency (MTH022 or proficiency) and (IDS102 or proficiency) IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency ACC133 Pre-co-MTH024 or MTH022	
SSC101 ACC130 ACC225 or ACC237 AOT226 BUS124 BUS221 COM121 ENG124 FIN220	Student Success Seminar^^  Business Law and Ethics  Auditing◆ or Fraud Examination◆▲  Spreadsheet - Microsoft Excel^  Business Analysis with Algebra^  Microeconomics^ Effective Speaking  College Composition^  Business Finance  Statistics^  Select one (1) Arts & Humanities Elective from	1 3 4 or 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	pre-co-ACC222 or ACC133 ITD100 or Proficiency (MTH022 or proficiency) and (IDS102 or Proficiency) IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency ACC133 Pre-co-MTH024 or MTH022 or Proficiency	

<sup>^</sup>Based upon SSC placement score

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>♦</sup>Course should be chosen following consultation with academic advisor.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

#### **ACCOUNTING - CORPORATE MAJOR**

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS124	Business Analysis with Algebra <sup>^</sup>	<u>3</u>	(MTH022 or proficiency) and
			(IDS102 <b>or</b> proficiency)
~ .~		4	
Second Semester			
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
ACC132	Financial Accounting*	4	BUS124
COM121	Effective Speaking	3	
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
ACC130	Business Law and Ethics	<u>3</u>	
		16	
Third Semester			
ACC133	Managerial Accounting	4	ACC132
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
			Pre-co-MTH024 <b>or</b> MTH022
MTH124	Statistics <sup>^</sup>	3	or Proficiency
ACC221	Intermediate Accounting I	<u>4</u>	ACC132
		14	
Fourth Semester			
ACC222	Intermediate Accounting II	3	ACC221
ACC223	Cost Accounting	4	ACC133
ACC131	Taxation I	4	pre-co-ACC132
Technical Elective		<u>3-4</u>	Check for prerequisites
		14-15	The state of the s
Fifth Semester		2.20	
Arts & Humanities	Elective 1	3	Check for prerequisites
ACC225	Auditing♦	4	pre-co-ACC222
or	or	or	or
ACC237	Fraud Examination ◆ ▲	3	ACC133
FIN220	Business Finance	3	ACC133
ACC238	Financial Statement Analysis	3	ACC133
Technical Elective <sup>2</sup>		<u>3</u>	Check for prerequisites
		<u>-</u> 15-16	v 4 4
	TOTAL CREDITS	63-65	

<sup>^</sup>Based upon SSC placement score

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>◆</sup>Course should be chosen following consultation with academic advisor.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

<sup>&</sup>lt;sup>2</sup> Technical Electives: ACC226, ACC227, ACC229, ACC232, ACC235, ACC240, ACC241



### WAP

## ASSOCIATE OF APPLIED BUSINESS ACCOUNTING - CPA MAJOR

2021 Catalog

Effective Summer 2020

2002

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC221	Intermediate Accounting I	4	ACC132	
ACC222	Intermediate Accounting II	3	ACC221	
ACC225	Auditing	4	pre-co-ACC222	
ACC226	Advanced Accounting	3	pre-co-ACC222	
ACC231	Taxation II	3	ACC131	
ACC232	Governmental and Not-for-Profit Accounting	3	ACC132	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
ACC223	Cost Accounting	4	ACC133	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
ACC238	Financial Statement Analysis	3	ACC133	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
FIN220	Business Finance	3	ACC133	
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	64		

<sup>^</sup>Based upon SSC placement score

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

#### **ACCOUNTING - CPA MAJOR**

2002

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS124	Business Analysis with Algebra^	<u>3</u>	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
		4	
Second Semester			
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
ACC130	Business Law and Ethics	3	
ACC132	Financial Accounting*	4	BUS124
Arts & Humanitie	s Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		13	
Third Semester			
ACC133	Managerial Accounting	4	ACC132
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
ACC131	Taxation I	4	pre-co-ACC132
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 or Proficiency
BUS221	Microeconomics^	<u>3</u>	IDS102 or Proficiency
		17	
Fourth Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC238	Financial Statement Analysis	3	ACC133
ACC231	Taxation II	3	ACC131
ACC232	Governmental and Not-for-Profit Accounting	<u>3</u>	ACC132
		13	
Fifth Semester			
ACC222	Intermediate Accounting II	3	ACC221
ACC223	Cost Accounting	4	ACC133
ACC225	Auditing	4	pre-co-ACC222
FIN220	Business Finance	3	ACC133
ACC226	Advanced Accounting	<u>3</u>	pre-co-ACC222
		<u>17</u>	
	TOTAL CREDITS	64	

<sup>^</sup>Based upon SSC placement score

51

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122



### ASSOCIATE OF APPLIED BUSINESS **ACCOUNTING - TAX MAJOR**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

2007

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC221	Intermediate Accounting I	4	ACC132	
ACC222	Intermediate Accounting II	3	ACC221	
ACC223	Cost Accounting	4	ACC133	
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132	
ACC231	Taxation II	3	ACC131	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
ACC225	Auditing♦	4	pre-co-ACC222	
or ACC237	<b>or</b> Fraud Examination <b>♦ △</b>	<b>or</b> 3	or ACC133	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
FIN220	Business Finance	3	ACC133	
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	31-32		
	TOTAL CREDIT HOURS	61-62		

<sup>^</sup>Based upon SSC placement score.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>♦</sup>Course should be chosen following consultation with academic advisor.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

#### **ACCOUNTING - TAX MAJOR**

2007

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
BUS124	Business Analysis with Algebra <sup>^</sup>	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
ACC130	Business Law and Ethics	3	
Arts & Humanitie	s Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		13	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 <b>or</b> Proficiency
COM121	Effective Speaking	3	
ACC131	Taxation I	<u>4</u>	pre-co-ACC132
		17	
Third Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
ACC231	Taxation II	3	ACC131
ACC227	Payroll Accounting	<u>4</u>	pre-co-ACC121 <b>or</b> pre-co-ACC132
		18	
Fourth Semester			
ACC222	Intermediate Accounting II	3	ACC221
ACC223	Cost Accounting	4	ACC133
ACC225	Auditing♦	4	pre-co-ACC222
or	or	or	or
ACC237	Fraud Examination ◆ ▲	3	ACC133
FIN220	Business Finance	<u>3</u>	ACC133
	TOTAL COPPOSES	13-14	
	TOTAL CREDITS	61-62	

<sup>^</sup>Based upon SSC placement score.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>◆</sup>Course should be chosen following consultation with academic advisor.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122



### W ACADEMIC PLAN

#### ASSOCIATE OF APPLIED BUSINESS

## ACCOUNTING - COMPUTER INFORMATION MAJOR

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2008

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC221	Intermediate Accounting I	4	ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
TECHNICAL ELI	ECTIVE I: Choose one (1) course			
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132	
ACC231	Taxation II	3	ACC131	
ACC235	Forensic Accounting	3		
TECHNICAL ELI	ECTIVE II: Choose two (2) courses			
CIS125	Data Analysis and Decision Making	3	CPD121	
CIS221	Generating Reports for Decision Making	3	CPD121	
CPD123	Structured Query Language	3	CPD121	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
	Total	31-32	`	
				~
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
	Course Title Student Success Seminar^^	Credits	Pre- and Co-Requisites  Take first semester	
<b>Course Number</b>				
Course Number SSC101	Student Success Seminar^^	1		
Course Number SSC101 ACC130	Student Success Seminar^^ Business Law and Ethics	1 3	ACC133 (MTH022 or proficiency) and	
SSC101 ACC130 ACC237 BUS124	Student Success Seminar^^ Business Law and Ethics Fraud Examination •	1 3 3 3	ACC133 (MTH022 or proficiency) and (IDS102 or proficiency)	
SSC101 ACC130 ACC237 BUS124 BUS221	Student Success Seminar^^ Business Law and Ethics Fraud Examination   Business Analysis with Algebra^ Microeconomics^	1 3 3 3 3	ACC133 (MTH022 or proficiency) and	
SSC101 ACC130 ACC237 BUS124	Student Success Seminar^^ Business Law and Ethics Fraud Examination ▲ Business Analysis with Algebra^	1 3 3 3	ACC133  (MTH022 or proficiency) and (IDS102 or Proficiency)  IDS102 or Proficiency  (IDS102 or Proficiency)	
SSC101 ACC130 ACC237 BUS124 BUS221 COM121	Student Success Seminar^^ Business Law and Ethics Fraud Examination   Business Analysis with Algebra^ Microeconomics^ Effective Speaking	1 3 3 3 3 3	ACC133 (MTH022 or proficiency) and (IDS102 or proficiency) IDS102 or Proficiency	
SSC101 ACC130 ACC237 BUS124 BUS221 COM121 CPD121	Student Success Seminar^^ Business Law and Ethics Fraud Examination   Business Analysis with Algebra^  Microeconomics^ Effective Speaking  Data Modeling and Database Design^	1 3 3 3 3 3 3	ACC133 (MTH022 or proficiency) and (IDS102 or Proficiency) IDS102 or Proficiency (IDS102 or Proficiency) and (ITD100 or Proficiency) Co-ENG024 or Co-ENG011	
SSC101 ACC130 ACC237 BUS124 BUS221 COM121 CPD121 ENG124	Student Success Seminar^^ Business Law and Ethics Fraud Examination  Business Analysis with Algebra^ Microeconomics^ Effective Speaking Data Modeling and Database Design^  College Composition^	1 3 3 3 3 3 3 3	ACC133  (MTH022 or proficiency) and (IDS102 or Proficiency)  IDS102 or Proficiency  (IDS102 or Proficiency) and (ITD100 or Proficiency)  Co-ENG024 or Co-ENG011 or Proficiency	
SSC101 ACC130 ACC237 BUS124 BUS221 COM121 CPD121 ENG124 ITD102	Student Success Seminar^^ Business Law and Ethics Fraud Examination  Business Analysis with Algebra^ Microeconomics^ Effective Speaking Data Modeling and Database Design^  College Composition^ Computer Applications – Word^	1 3 3 3 3 3 3 3	ACC133 (MTH022 or proficiency) and (IDS102 or proficiency) IDS102 or Proficiency (IDS102 or Proficiency) (IDS102 or Proficiency) and (ITD100 or Proficiency) Co-ENG024 or Co-ENG011 or Proficiency ITD100 or Proficiency	
SSC101 ACC130 ACC237 BUS124 BUS221 COM121 CPD121 ENG124 ITD102 ITD104	Student Success Seminar^^  Business Law and Ethics  Fraud Examination   Business Analysis with Algebra^  Microeconomics^  Effective Speaking  Data Modeling and Database Design^  College Composition^  Computer Applications – Word^  Computer Applications – PowerPoint^	1 3 3 3 3 3 3 3	ACC133  (MTH022 or proficiency) and (IDS102 or proficiency)  IDS102 or Proficiency  (IDS102 or Proficiency)  (IDS102 or Proficiency)  (IDS102 or Proficiency) and (ITD100 or Proficiency)  Co-ENG024 or Co-ENG011  or Proficiency  ITD100 or Proficiency  ITD100 or Proficiency	
SSC101 ACC130 ACC237 BUS124 BUS221 COM121 CPD121 ENG124 ITD102 ITD104 ITD106	Student Success Seminar^^  Business Law and Ethics  Fraud Examination   Business Analysis with Algebra^  Microeconomics^ Effective Speaking  Data Modeling and Database Design^  College Composition^  Computer Applications – Word^ Computer Applications – PowerPoint^  Computer Applications – Access^	1 3 3 3 3 3 3 3 1 1 1 1 3	ACC133  (MTH022 or proficiency) and (IDS102 or proficiency)  IDS102 or Proficiency  (IDS102 or Proficiency)  (IDS102 or Proficiency)  (IDS102 or Proficiency) and (ITD100 or Proficiency)  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency  ITD100 or Proficiency  Pre-co-MTH024 or MTH022	
SSC101 ACC130 ACC237 BUS124 BUS221 COM121 CPD121 ENG124 ITD102 ITD104 ITD106	Student Success Seminar^^  Business Law and Ethics  Fraud Examination ▲  Business Analysis with Algebra^  Microeconomics^  Effective Speaking  Data Modeling and Database Design^  College Composition^  Computer Applications – Word^  Computer Applications – PowerPoint^  Computer Applications – Access^  Statistics^  Select one (1) Arts & Humanities Elective from the	1 3 3 3 3 3 3 3 1 1 1 1	ACC133  (MTH022 or proficiency) and (IDS102 or proficiency)  IDS102 or Proficiency  (IDS102 or Proficiency)  (IDS102 or Proficiency)  (IDS102 or Proficiency) and (ITD100 or Proficiency)  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency  ITD100 or Proficiency  ITD100 or Proficiency  Pre-co-MTH024 or MTH022 or Proficiency	

<sup>^</sup>Based upon SSC placement score.

54

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

Effective Summer 2020

## ACCOUNTING - COMPUTER INFORMATION MAJOR

2008

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101	Student Success Seminar^^	Credit Hours	<u>Pre- and Co-requisites</u> Take first semester
		-	Co-ENG024 or Co-ENG011 or
ENG124	College Composition^	3	Proficiency
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency
ACC130	Business Law and Ethics	<u>3</u>	
		13	
Second Semester		,	DYYG101
ACC132	Financial Accounting*	4	BUS124
COM121	Effective Speaking	3	D MELLOOA MELLOOO
MTH124	Statistics^	3	Pre-co-MTH024 <b>or</b> MTH022 <b>or</b> Proficiency
ITD102	Computer Applications – Word^	1	ITD100 or Proficiency
ITD104	Computer Applications – PowerPoint <sup>^</sup>	1	ITD100 or Proficiency
ITD106	Computer Applications – Access^	1	ITD100 or Proficiency
Arts and Humani	ties Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
Third Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC131	Taxation I	4	pre-co-ACC132
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)
Technical Electiv	e II <sup>3</sup>	<u>3</u>	Check for prerequisites
		18	
Fourth Semester			
ACC237	Fraud Examination ▲	3	ACC133
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)
Technical Electiv		3-4	Check for prerequisites
Technical Electiv	e II <sup>3</sup>	<u>3</u>	Check for prerequisites
		15-16	
	TOTAL CREDITS	62-63	

<sup>^</sup>Based upon SSC placement score.

55

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

<sup>&</sup>lt;sup>2</sup> Technical Elective I: ACC227, ACC231, ACC235

<sup>&</sup>lt;sup>3</sup> <u>Technical Elective II</u>: CIS125, CIS221, CPD123, WDD121



### MY ACADEMIC PLAN

#### ASSOCIATE OF APPLIED BUSINESS

## ACCOUNTING SERVICES FOR HEALTH ADMINISTRATION MAJOR

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

2009

2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC221	Intermediate Accounting I	4	ACC132	
ACC223	Cost Accounting	4	ACC133	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)	
ACC232	Governmental and Not-for-Profit Accounting	3	ACC132	
ACC237	Fraud Examination ▲	3	ACC133	
MAT231	Reimbursement for Health Care Services+++	3		
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency	
BIO125	Medical Terminology+++	3		
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
FIN220	Business Finance	3	ACC133	
HIT230	Health Care Delivery in the U.S.+++	2		
HIT123	Healthcare Legal and Ethical Issues+++	2	pre-co-HIT230 or co-HIT121	
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	64		

<sup>^</sup>Based upon SSC placement score

56

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>+++</sup>Students must take Health courses in the sequence as shown.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

Effective Summer 2020

## ACCOUNTING SERVICES FOR HEALTH ADMINISTRATION MAJOR

2009

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
BIO125	Medical Terminology+++	3	•
COM121	Effective Speaking	<u>3</u>	
		16	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
HIT230	Health Care Delivery in the U.S.+++	2	
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 or Proficiency
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
Arts & Humanitie	s Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		15	
Third Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC232	Governmental and Not-For-Profit Accounting	3	ACC132
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)
MAT231	Reimbursement for Health Care Services+++	3 <b>17</b>	
Fourth Semester		17	
ACC237	Fraud Examination ▲	3	ACC133
ACC223	Cost Accounting	4	ACC133
FIN220	Business Finance	3	ACC133
ACC131	Taxation I	4	pre-co-ACC132
		•	pre-co-HIT230
HIT123	Healthcare Legal and Ethical Issues+++	<u>2</u>	or co-HIT121
		16	
	TOTAL CREDITS	64	

<sup>^</sup>Based upon SSC placement score

57

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>+++</sup>Students must take Health courses in the sequence as shown.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122



### MY ACADEMIC PLAN

#### ASSOCIATE OF APPLIED BUSINESS

## ACCOUNTING - FORENSIC ACCOUNTING MAJOR

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

2011

2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC221	Intermediate Accounting I	4	ACC132	
ACC223	Cost Accounting	4	ACC133	
ACC235	Forensic Accounting	3		
ACC237	Fraud Examination A	3	ACC133	
ACC238	Financial Statement Analysis	3	ACC133	
CFS137	Computer Crime and Investigation	3	NET120	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
CFS136	Principles of Information Security	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 or Proficiency	
NET120	PC Upgrading and Maintenance	3		
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based upon SSC placement score

58

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

Effective Summer 2020

## ACCOUNTING - FORENSIC ACCOUNTING MAJOR

2011

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
BUS124	Business Analysis with Algebra <sup>^</sup>	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
COM121	Effective Speaking	3	
CFS136	Principles of Information Security	<u>3</u>	
		16	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
ACC235	Forensic Accounting	3	
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
ACC130	Business Law and Ethics	3	
MTH124	Statistics^	<u>3</u>	Pre-co-MTH024 or MTH022 or Proficiency
		16	
Third Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC131	Taxation I	4	pre-co-ACC132
NET120	PC Upgrading and Maintenance	3	
		15	
Fourth Semester			
ACC237	Fraud Examination ▲	3	ACC133
ACC223	Cost Accounting	4	ACC133
ACC238	Financial Statement Analysis	3	ACC133
CFS137	Computer Crime and Investigation	3	NET120
Arts & Humanitie	es Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
	TOTAL CREDITS	63	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122



## ONE-YEAR CERTIFICATE BOOKKEEPING

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

2004

MAP

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) and (ACC121 or ACC132)	
	Total	19		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
	Total	16		
	TOTAL CREDIT HOURS	35		

<sup>^</sup>Based upon SSC placement score

To become a Certified Bookkeeper, students must pass an exam administered by the American Institute of Professional Bookkeepers.

To become a Certified Payroll Professional or achieve the Fundamental Payroll Certification, students must pass an exam administered by the American Payroll Association.

60

To become a QuickBooks Certified User, students must pass an exam administered by Certiport.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

Effective Summer 2020

## ONE-YEAR CERTIFICATE BOOKKEEPING

2004

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
ACC130	Business Law and Ethics	<u>3</u>	
		7	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency
ENG124	College Composition <sup>^</sup>	<u>3</u>	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency)
		14	
Third Semester			
ACC133	Managerial Accounting	4	ACC132
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)
COM121	Effective Speaking	3	
ACC131	Taxation I	<u>4</u>	pre-co-ACC132
		14	
	TOTAL CREDITS	35	

<sup>^</sup>Based upon SSC placement score

To become a Certified Bookkeeper, students must pass an exam administered by the American Institute of Professional Bookkeepers.

To become a Certified Payroll Professional or achieve the Fundamental Payroll Certification, students must pass an exam administered by the American Payroll Association.

61

To become a QuickBooks Certified User, students must pass an exam administered by Certiport.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.



### WAP

## ONE-YEAR CERTIFICATE ENROLLED AGENT

2021 Catalog

Effective Summer 2020

2005

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132	
ACC231	Taxation II	3	ACC131	
	Total	15		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
	Total	16		
	TOTAL CREDIT HOURS	31		

<sup>^</sup>Based upon SSC placement score.

To become an Enrolled Agent, students must pass an exam administered by the Internal Revenue Service.

62

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

## ONE-YEAR CERTIFICATE ENROLLED AGENT

2005

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
ACC130	Business Law and Ethics	3	(
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or
		10	Proficiency
Second Semester			
ACC132	Financial Accounting*	4	BUS124
ACC131	Taxation I	4	pre-co-ACC132
AOT226	Spreadsheet - Microsoft Excel^	<u>3</u>	ITD100 or Proficiency
		11	
Third Semester			
ACC231	Taxation II	3	ACC131
COM121	Effective Speaking	3	
ACC227	Payroll Accounting	<u>4</u>	pre-co-ACC121 <b>or</b> pre-co-ACC132
		10	•
	TOTAL CREDITS	31	

<sup>^</sup>Based upon SSC placement score

To become an Enrolled Agent, students must pass an exam administered by the Internal Revenue Service.

63

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



### MAP

## ONE-YEAR CERTIFICATE BANKING ASSOCIATE

2021 Catalog

Effective Summer 2020

2010

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC132	Financial Accounting*	4	BUS124	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
FIN110	Personal Finance	2		
FIN221	Investment and Securities ▲	3	ACC132	
FIN227	Money and Banking ▲	3	BUS124	
MKT121	Principles of Marketing	3	BUS221	
	Total	18		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
	Total	16		
	TOTAL CREDIT HOURS	34		

<sup>^</sup>Based upon SSC placement score

64

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

Effective Summer 2020

### ONE-YEAR CERTIFICATE BANKING ASSOCIATE

2010

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ACC130	Business Law and Ethics	3	
BUS124	Business Analysis with Algebra^	3	(MTH022 or proficiency) and
BUS221	Microeconomics^	3	(IDS102 <b>or</b> proficiency) IDS102 <b>or</b> Proficiency
FIN110	Personal Finance	<u>2</u>	
		12	
Second Semester			
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 <b>or</b> Proficiency
ACC132	Financial Accounting*	4	BUS124
MKT121	Principles of Marketing	<u>3</u>	BUS221
		13	
Third Semester			
COM121	Effective Speaking	3	
FIN221	Investment and Securities ▲	3	ACC132
FIN227	Money and Banking ▲	<u>3</u>	BUS124
		9	
	TOTAL CREDITS	34	

<sup>^</sup>Based upon SSC placement score

65

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



### **ONE-YEAR CERTIFICATE COMPUTER-INTEGRATED ACCOUNTING**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

2012

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) and (ACC121 or ACC132)	
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 or Proficiency	
	Total	18		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD102	Computer Applications – Word^	1	ITD100 or Proficiency	
ITD104	Computer Applications – PowerPoint^	1	ITD100 or Proficiency	
ITD106	Computer Applications – Access^	1	ITD100 or Proficiency	
	Total	16		
	TOTAL CREDIT HOURS	34		

<sup>^</sup>Based upon SSC placement score

66

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

Effective Summer 2020

## ONE-YEAR CERTIFICATE COMPUTER-INTEGRATED ACCOUNTING

2012

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
ACC130	Business Law and Ethics	<u>3</u>	
		7	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	3	ITD100 or proficiency
ITD102	Computer Applications – Word^	1	ITD100 or proficiency
ITD104	Computer Applications – PowerPoint^	1	ITD100 or proficiency
ITD106	Computer Applications – Access^	1	ITD100 or proficiency
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
		13	
Third Semester			
ACC133	Managerial Accounting	4	ACC132
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) <b>and</b> (ACC121 or ACC132)
COM121	Effective Speaking	<u>3</u>	
		14	
	TOTAL CREDITS	34	

<sup>^</sup>Based upon SSC placement score

67

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.



### ASSOCIATE OF APPLIED BUSINESS **FINANCE**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

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Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC231	Taxation II	3	ACC131	
ACC237	Fraud Examination ▲	3	ACC133	
ACC238	Financial Statement Analysis	3	ACC133	
FIN110	Personal Finance	2		
FIN220	Business Finance	3	ACC133	
FIN221	Investment and Securities ▲	3	ACC132	
FIN227	Money and Banking ▲	3	BUS124	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MKT121	Principles of Marketing	3	BUS221	
MTH124	Statistics^	3	Pre-co-MTH024 or MTH022 or Proficiency	-
	Select one (1)Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based upon SSC placement score

68

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ACC130	Business Law and Ethics	3	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
FIN110	Personal Finance	2	
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
BUS124	Business Analysis with Algebra <sup>^</sup>	<u>3</u>	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
		15	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
COM121	Effective Speaking	3	
MTH124	Statistics^	3	Pre-co-MTH024 <b>or</b> MTH022 <b>or</b> Proficiency
Arts & Humanitie	s Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
Third Semester			
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or Proficiency
ACC133	Managerial Accounting	4	ACC132
ACC131	Taxation I	4	pre-co-ACC132
FIN227	Money and Banking ▲	3	BUS124
FIN221	Investment and Securities ▲	<u>3</u>	ACC132
		17	
Fourth Semester			
MKT121	Principles of Marketing	3	BUS221
ACC238	Financial Statement Analysis	3	ACC133
ACC231	Taxation II	3	ACC131
ACC237	Fraud Examination ▲	3	ACC133
FIN220	Business Finance	<u>3</u>	ACC133
		15	
	TOTAL CREDITS	65	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122



### ASSOCIATE OF APPLIED BUSINESS **BUSINESS MANAGEMENT**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28. 2021 Catalog

Effective Summer 2020

2055

Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	3	IDS102 or Proficiency	
MGT121	Principles of Management	3	BUS121 or ENT120	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	MGT121 and (ACC128 or ACC133)	
MGT224	Human Resource Management	3	MGT121	
MGT227	Operations Management	4	MGT121 <b>and</b> (MTH108 or MTH124 or MTH125)	
MKT121	Principles of Marketing	3	BUS221	
TECHNICAL EL	ECTIVES: Choose three (3) courses			
MGT222	Small Business Management	3	ACC128 and MGT121	
MGT232	International Business	3	BUS121	
MKT221	Sales	3	MKT121	
MKT226	Supply Chain Management	3	MKT121	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC128	Accounting Basics for Managers	4	(MTH108 or MTH124 or MTH125) <b>and</b> (IDS102 or proficiency)	
ACC130	Business Law and Ethics	3	1	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD102	Computer Applications – Word	1	ITD100 or Proficiency	
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency	
or	or	or	or	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3		
or	or	or		
MTH124	Statistics Ω	3	Check for prerequisites	
or MTH125	Or College Algebra O	<b>or</b> 4		
WH 11125	College Algebra Ω  Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	the list below Total	30-31		
	TOTAL CREDIT HOURS	62-63		

<sup>^</sup>Based upon SSC placement score

70

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

Effective Summer 2020

### **BUSINESS MANAGEMENT**

2055

### FULL-TIME STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS121	Business Administration^	3	IDS102 or Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency
or	or	or	or
AOT226 ITD102	Spreadsheet - Microsoft Excel^ Computer Applications – Word	3 1	ITD100 <b>or</b> Proficiency ITD100 <b>or</b> Proficiency
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
ENG124	Conege Composition	3	Proficiency
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	
MTH124	Statistics $\Omega$	3	Check for prerequisites
0r	or	or	
MTH125	College Algebra $\Omega$	4 14-15	
Second Semester		14-13	
ACC130	Business Law and Ethics	3	
MGT121	Principles of Management	3	BUS121 or ENT120
BUS221	Microeconomics^	3	IDS102 or Proficiency
D03221	whereconomics	3	(MTH108 or MTH124 or
ACC128	Accounting Basics for Managers	4	MTH125) <b>and</b>
1100120	Tree during Busies for Managers	·	(IDS102 or proficiency)
COM121	Effective Speaking	<u>3</u>	1
		16	
Third Semester			
MKT121	Principles of Marketing	3	BUS221
MGT227	Operations Management	4	MGT121 and (MTH108 or
			MTH124 or MTH125)
MGT221	Supervision	3	MGT121
Technical Elective <sup>2</sup>		3	Check for prerequisites
Technical Elective <sup>2</sup>		<u>3</u>	Check for prerequisites
		16	
Fourth Semester			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics^	3	IDS102 or Proficiency
MGT223	Business Decision Making	4	MGT121 and
	_		(ACC128 or ACC133)
Arts & Humanities H	elective.	3	Check for prerequisites
Technical Elective <sup>2</sup>		<u>3</u>	Check for prerequisites
		16	
	TOTAL CREDITS	62-63	

71

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup> Technical Electives: MGT222, MGT232, MKT221, MKT226



## ASSOCIATE OF APPLIED BUSINESS BUSINESS MANAGEMENT – HEALTH SERVICES MAJOR

2021 Catalog

Effective Summer 2020

**2060** 

### MACADEMIC PLAN

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law and Ethics	3		
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
BUS121	Business Administration^	3	IDS102 or Proficiency	
HIT230	Health Care Delivery in the U.S.	2		
MAT231	Reimbursement for Health Care Services	3		
MGT121	Principles of Management	3	BUS121 or ENT120	
MGT223	Business Decision Making	4	(ACC133 or ACC128) and MGT121	
MGT224	Human Resource Management	3	MGT121	
MKT121	Principles of Marketing	3	BUS221	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency	
or	or	or	or	
AOT226 MTH108	Spreadsheet - Microsoft Excel^ Explorations in Modern Mathematics^	3	ITD100 <b>or</b> Proficiency	
or	or	or		
MTH124	Statistics $\Omega$	3	Check for prerequisites	
or	or	or	July 1 Procedures	
MTH125	College Algebra Ω	4		
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	33-34		
	TOTAL CREDIT HOURS	63-64		

<sup>^</sup>Based upon SSC placement score

72

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

<sup>\*</sup> Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

Ω MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

Effective Summer 2020

## BUSINESS MANAGEMENT - HEALTH SERVICES MAJOR

2060

#### **FULL-TIME STUDENT ADVISING NOTES**

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS121	Business Administration^	3	IDS102 or Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency
or	or	or	or
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
BUS124	Business Analysis with Algebra <sup>^</sup>	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
BIO125	Medical Terminology	<u>3</u>	·
		16	
Second Semester			
ACC130	Business Law and Ethics	3	
MGT121	Principles of Management	3	BUS121 or ENT120
BUS221	Microeconomics^	3	IDS102 or Proficiency
COM121	Effective Speaking	3	•
ACC132	Financial Accounting*	<u>4</u>	BUS124
	-	16	
Third Semester			
MKT121	Principles of Marketing	3	BUS221
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	
MTH124	Statistics $\Omega$	3	Check for prerequisites
or	or	or	
MTH125	College Algebra Ω	4	ACC132
ACC133	Managerial Accounting	4	ACC132
HIT230	Health Care Delivery in the U.S.	<u>2</u> 15-16	
Counth Compactor		15-10	
Fourth Semester MGT224	Human Dasauma Managamant	2	MGT121
	Human Resource Management Macroeconomics^	3	
BUS222 MGT223		3 4	IDS102 or Proficiency ACC133 and MGT121
MG1223 MAT231	Business Decision Making		ACC133 and MG1121
MA1231 Arts & Humanities I	Reimbursement for Health Care Services	3	Chack for properties
Ans & numanities i	Елесиче	<u>3</u> <b>16</b>	Check for prerequisites
	TOTAL CREDITS		
	TOTAL CREDITS	63-64	

73

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD12

<sup>\*</sup> Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122



### ASSOCIATE OF APPLIED BUSINESS

### **BUSINESS MANAGEMENT - FINANCE MAJOR**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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2061



Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law and Ethics	3		
BUS121	Business Administration^	3	IDS102 or Proficiency	
FIN220	Business Finance	3	ACC133	
FIN221	Investment and Securities ▲	3	ACC132	
FIN227	Money and Banking ▲	3	BUS124	
MGT121	Principles of Management	3	BUS121 or ENT120	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	MGT121 and (ACC128 or ACC133)	
MGT224	Human Resource Management	3	MGT121	
MKT121	Principles of Marketing	3	BUS221	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra^	3	(MTH022 or proficiency) and (IDS102 or proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122 or	Computer Applications for Professionals^ or	3 <b>or</b>	ITD100 or Proficiency or	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3	,	
or	or	or		
MTH124	Statistics Ω	3 or	Check for prerequisites	
or MTH125	or College Algebra Ω	<b>or</b> 4		
-	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	33-34		
	TOTAL CREDIT HOURS	64-65		

<sup>^</sup>Based upon SSC placement score

74

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>\*</sup> Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

### **BUSINESS MANAGEMENT - FINANCE MAJOR**

2061

### FULL-TIME STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS121	Business Administration^	3	IDS102 or Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency
or	or	or	or
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 <b>or</b> Proficiency (MTH022 <b>or</b> proficiency) <b>and</b>
BUS124	Business Analysis with Algebra <sup>^</sup>	3	(IDS102 or proficiency)
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or
			Proficiency
MTH108	Explorations in Modern Mathematics^	3	
or MTH124	or Statistics Ω	<b>or</b> 3	Check for prerequisites
or	or	or	encenjer prerequisites
MTH125	College Algebra $\Omega$	<u>4</u>	
		16-17	
Second Semester			
ACC130	Business Law and Ethics	3	
MGT121	Principles of Management	3	BUS121 or ENT120
BUS221	Microeconomics^	3	IDS102 or Proficiency
ACC132	Financial Accounting*	4	BUS124
COM121	Effective Speaking	<u>3</u>	
		16	
Third Semester			
MGT221	Supervision	3	MGT121
MKT121	Principles of Marketing	3	BUS221
FIN227	Money and Banking ▲	3	BUS124
ACC133	Managerial Accounting	4	ACC132
FIN221	Investments and Securities ▲	<u>3</u>	ACC132
		16	
Fourth Semester			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics^	3	IDS102 or Proficiency
MGT223	Business Decision Making	4	MGT121 and
	•		(ACC128 or ACC133)
FIN220	Business Finance	3	ACC133
Arts & Humanities	s Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
	TOTAL CREDITS	64-65	

<sup>^</sup>Based upon SSC placement score

75

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122



### WACADEMIC PLAN

### ASSOCIATE OF APPLIED BUSINESS

## BUSINESS MANAGEMENT - HUMAN RESOURCES MAJOR

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

RESOURCES MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	3	IDS102 or Proficiency	
MGT121	Principles of Management	3	BUS121 or ENT120	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	MGT121 and (ACC128 or ACC133)	
MGT224	Human Resource Management	3	MGT121	
MGT232	International Business	3	BUS121	
MGT237	Safety and Health Management	3	MGT224	
MGT238	Strategic Staffing	3	MGT224	
MGT239	Compensation and Benefits	3	MGT224	
MKT121	Principles of Marketing	3	BUS221	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3	,	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3		
or	or	or		
MTH124	Statistics Ω	3	Check for prerequisites	
or	or	or		
MTH125	College Algebra Ω	4		
ITD122	Computer Applications for Professionals^■	3	ITD100 <b>or</b> Proficiency	
or	or	or	or	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	33-34		
	TOTAL CREDIT HOURS	64-65		

<sup>^</sup>Based upon SSC placement score

76

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

### 2021 Catalog

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### BUSINESS MANAGEMENT – HUMAN RESOURCES MAJOR

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### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

sii iii two years.			
First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS121	Business Administration^	3	IDS102 or Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency
or	or	or	or
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
BUS124	Business Analysis with Algebra <sup>^</sup>	3	(MTH022 or proficiency) and
			(IDS102 <b>or</b> proficiency)
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011
			or Proficiency
Arts & Humani	ties Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
Second Semester		_	
COM121	Effective Speaking	3	
MGT121	Principles of Management	3	BUS121 or ENT120
BUS221	Microeconomics^	3	IDS102 or Proficiency
MGT232	International Business	3	BUS121
ACC132	Financial Accounting*	<u>4</u>	BUS124
TT1: 1 C		16	
Third Semester		2	DATECOAL
MKT121	Principles of Marketing	3	BUS221
ACC130	Business Law and Ethics	3	A CC122
ACC133	Managerial Accounting	4	ACC132
MGT224	Human Resource Management	3 3	MGT121
MTH108	Explorations in Modern Mathematics^	_	
or MT11124	or Statistics $\Omega$	<b>or</b> 3	Charle for managinites
MTH124		-	Check for prerequisites
or MTH125	<b>or</b> College Algebra Ω	<b>or</b> 4	
W1111123	College Algebra 12	16-17	
Fourth Semeste	r	10-17	
MGT221	Supervision	3	MGT121
MGT223	Business Decision Making	4	MGT121 and
WIG1223	Business Beetsion Making	7	(ACC128 or ACC133)
MGT237	Safety and Health Management	3	MGT224
MGT238	Strategic Staffing	3	MGT224
MGT239	Compensation and Benefits	<u>3</u>	MGT224
		16	
	TOTAL CREDITS	64-65	

<sup>^</sup>Based upon SSC placement score

77

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122



### ASSOCIATE OF APPLIED BUSINESS

### Effective

**2021 Catalog**Effective Summer 2020

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## BUSINESS MANAGEMENT - KENT STATE UNIVERSITY BBA DEGREE MAJOR



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Numbers		Course Title	Credits	Pre- or Co-Requisites	Completed
KSU Equivalent	Stark State	Course Title	Credits	Tre- or Co-Requisites	Sem./Year
FIN 26074	ACC130	Business Law and Ethics	3		
BUS 10123	BUS121	Business Administration^	3	IDS102 or Proficiency	
ECON 22060	BUS221	Microeconomics^	3	IDS102 or Proficiency	
ECON 22061	BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or Proficiency	
MIS 24163*	MGT121	Principles of Management	3	BUS121 or ENT120	
General Elective	MGT221	Supervision	3	MGT121	
General Elective	MGT223	Business Decision Making	4	MGT121 and (ACC128 or ACC133)	
BMRT 31006	MGT224	Human Resource Management	3	MGT121	
General Elective	MGT227	Operations Management	4	MGT121 <b>and</b> (MTH108 or MTH124 or MTH125)	
MKTG 25010	MKT121	Principles of Marketing	3	BUS221	
		Total	32		
NON-TECH Cour		Course Title	Credits	Pre- or Co-Requisites	Completed Sem./Year
KSU Equivalent	Stark State			-	Sem./ Year
General Elective	SSC101	Student Success Seminar^^	1	Take first semester	
ACCT 23020	ACC132	Financial Accounting	4	BUS124	
ACCT 23031	ACC133	Managerial Accounting	4	ACC132	
General Elective	BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
COMM 15000*	COM121	Effective Speaking	3		
ENG 11011	ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
HIST 12070	HIS121	US History I to 1877	3		
or	or	or	<b>or</b> 3		
HIST 12071 CIS 24053	HIS122 ITD122	US History II from 1877  Computer Applications for Professionals^■	3	ITD100 or Proficiency	
MATH 10041 or	MTH124	Statistics	3		
MATH 11010 (3 credit hours)*	or MTH125	or College Algebra	or 4	Check for prerequisites	
PSYC 11762	PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
		Total	30-31		
		TOTAL CREDIT HOURS	62-63		

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<sup>^</sup>Based upon SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122.

<sup>◆</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>\*</sup>Must earn minimum C (2.000) grade

### 2021 Catalog

Effective Summer 2020

### BUSINESS MANAGEMENT – KENT STATE UNIVERSITY BBA DEGREE MAJOR

2067

### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101 BUS121 ITD122	Student Success Seminar^^ Business Administration^ Computer Applications for Professionals^■	Credit Hours  1 3 3	Pre- and Co-requisites  Take first semester  IDS102 or Proficiency ITD100 or Proficiency
BUS124	Business Analysis with Algebra <sup>^</sup>	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
C		13	
Second Semester ACC132	Financial Accounting◆	4	BUS124
COM121	Effective Speaking	3	BUS124
MGT121	Principles of Management	3	BUS121 or ENT120
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
MTH124	Statistics	3	
or	or	or	Check for prerequisites
MTH125	College Algebra	<u>4</u>	
		16-17	
Third Semester		_	
MGT221	Supervision	3	MGT121
MKT121	Principles of Marketing	3	BUS221
MGT227	Operations Management	4	MGT121 <b>and</b> (MTH108 or MTH124 or MTH125)
ACC133	Managerial Accounting	4	ACC132
ACC130	Business Law and Ethics	<u>3</u>	
F 4.0		17	
Fourth Semester MGT224	Human Resource Management	2	MGT121
BUS222	Macroeconomics <sup>^</sup>	3 3	IDS102 <b>or</b> Proficiency
		3	MGT121 and
MGT223	Business Decision Making	4	(ACC128 or ACC133)
HIS121	US History I to 1877	3	
or	or	or	
HIS122	US History II from 1877	3	
PSY121	General Psychology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		16	
	TOTAL CREDITS	62-63	

<sup>^</sup>Based upon SSC placement score.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122.

<sup>♦</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

### 2021 Catalog

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### BUSINESS MANAGEMENT – KENT STATE UNIVERSITY BBA DEGREE MAJOR

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#### ADDITIONAL COURSES FOR KENT BBA DEGREE AVAILABLE AT STARK STATE COLLEGE AND ACCEPTED AT KENT STATE UNIVERSITY: **ADDITIONAL BRIDGE COURSES:** Completed Stark State Credits **KSU Equivalent** Course Title Pre- or Co-requisites Sem./Year ENG 21011\* ENG231 College Composition II\* 3 ENG124 MTH135 or (MTH125 and MATH 11012 MTH221 Concepts of Calculus 3 MTH130) or Proficiency PHIL 21001 PHL122 3 Ethics TWO ADDITIONAL BRIDGE SCIENCE COURSES: 6 credit hours minimum (3 credit hour minimum must involve lab course indicated by \*) Completed Stark State Credits **KSU Equivalent Course Title** Pre- or Co-requisites Sem./Year Kent Basic Science 3 credit hours IDS102 or Proficiency BIO101 Intro to Anatomy and Physiology $\mathbf{or}$ Kent Basic Science and 4 credit hours/2 None BIO126\* Science/Energy, & the Environment (lab) Lab lab hours (MTH093 and MTH094or 4 credit hours CHEM 10030 CHM101 Introduction to Chemistry Proficiency $\mathbf{or}$ $\mathbf{or}$ 4 credit hours/2 or CHEM 100050 CHM121\* Gen/Org, & Biology Chemistry I CHM101 lab hours [(MTH093or Proficiency) or 4 credit hours/2 lab hours (MTH105 or MTH106 or Kent Basic Science and MTH107 or MTH108 or PHY101\* Lab Principles of Physics Proficiency)] and [IDS102 or or or Proficiency] PHY 13021 and PHY PHY121\* Col Physics I with Algebra or 13001 MTH135 or (MTH125 and 4 credit hours/2. lab hours MTH130) Kent Basic Science and 3 credit hours/2 BIO128\* Climate Studies Lab lab hours Kent Basic Science and 3 credit hours/2 BIO129\* Meteorology Lab lab hours 3 credit hours/2 GEOL 21080 BIO130\* Ocean Studies lab hours 4 credit hours/3 BSCI 10120 BIO141\* General Biology I lab hours CHEM 10062 5 credit hours/4 CHM141\* General Chemistry I CHM101 lab hours CHEM 10060 GEOL 11040 and 4 credit hours/2 GEO141\* Geology GEOL 11041 lab hours If all Bridge courses are completed at Stark State College, these 46 credit hours must be taken at Kent State University to obtain the BBA degree:

Course Number	Course Title	Credit Hours
UC 10162	Introduction to Professional Development	1
MGMT 34165 or MGMT 34175	Dynamics of Leadership or Learning to Lead	3
MGMT 34185	Individual and Group Behavior in Organizations	3
MGMT 44152	Collaborative Project Management	3
MGMT 44163	Global Business Management	3
MGMT 44392	Business Consulting and Practicum	3
	Major Electives	6
	College Elective	6
	Fine Arts Elective	3
BUS 30062	Advanced Professional Development	3
MGMT 34156	Business Analytics II	3
MGMT 34060	Operations Management	3
MGMT 44285	Integrated Business Policy & Strategy	3
FIN 36053	Business Finance	<u>3</u>
	TOTAL CREDIT HOURS	46

<sup>\*</sup>Minimum C (2.000) grade required.

Kent State University has institutional honors based on the completion of at least 60 credit hours earned at Kent State. Anything less than 60 credit hours will not be recognized with honors. This means if students who transfer would like to be recognized for cum laude, magna cum laude or summa cum laude, they need to have earned 60 credit hours at Kent State by the semester before they are graduating in order for them to be recognized in the commencement book as receiving honors and in order to receive honors cords.

KSU bridge courses revised: 1-2020



### ASSOCIATE OF APPLIED BUSINESS

### **BUSINESS MANAGEMENT -**ENTREPRENEURSHIP MAJOR

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law and Ethics	3		
BUS121	Business Administration^	3	IDS102 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
ENT124	Managing Entrepreneurial Growth	3	ENT120	
ENT223	Entrepreneurship Practicum	3	Sophomore standing <b>or</b> Department Chair approval	
ENT225	Global Entrepreneurship	3	ENT120	
MGT121	Principles of Management	3	BUS121 or ENT120	
MGT224	Human Resource Management	3	MGT121	
MKT121	Principles of Marketing	3	BUS221	
MKT221	Sales	3	MKT121	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra^**	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency	
or	or	or	or	
AOT226 MTH108	Spreadsheet - Microsoft Excel^ Explorations in Modern Mathematics^	3	ITD100 or Proficiency	
or	or	or		
MTH124	Statistics Ω	3	Check for prerequisites	
or	or	or		
MTH125	College Algebra Ω	4		
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	33-34		
	TOTAL CREDIT HOURS	63-64		

<sup>^</sup>Based upon SSC placement score

81

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>\*\*</sup>BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

Effective Summer 2020

### BUSINESS MANAGEMENT – ENTREPRENEURSHIP MAJOR

2079

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS121	Business Administration <sup>^</sup>	3	IDS102 <b>or</b> Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 <b>or</b> Proficiency
or	or	or	or
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency
	•		(MTH022 or proficiency) and
BUS124	Business Analysis with Algebra^**	3	(IDS102 or proficiency)
			Co-ENG024 or Co-ENG011 or
ENG124	College Composition^	3	Proficiency
ENT120	Entrepreneurship^	<u>3</u>	IDS102 <b>or</b> Proficiency
21,1120	2vp. cvp	16	12 2 10 <b>2</b> 01 1 10 11 0 11 0 11 0 1
Second Semester			
ENT124	Managing Entrepreneurial Growth	3	ENT120
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	
MTH124	Statistics $\Omega$	3	Check for prerequisites
or	or	or	<i>J</i> 1
MTH125	College Algebra $\Omega$	4	
MGT121	Principles of Management	3	BUS121 or ENT120
ENT225	Global Entrepreneurship	<u>3</u>	ENT120
		15-16	
Third Semester			
MGT224	Human Resource Management	3	MGT121
COM121	Effective Speaking	3	
MKT121	Principles of Marketing	3	BUS221
ACC132	Financial Accounting*	4	BUS124
Arts & Humanities	s Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
Fourth Semester			
ENT223	Entrepreneurship Practicum	3	Sophomore Standing <b>or</b>
EIN1 223	Entrepreneursing Fracticum	3	Department Chair Approval
ACC133	Managerial Accounting	4	ACC132
ACC130	Business Law and Ethics	3	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or Proficiency
MKT221	Sales	<u>3</u>	MKT121
		16	
		63-64	

<sup>^</sup>Based upon SSC placement score

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

<sup>\*</sup> Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.  $\Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>\*\*</sup>BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122



### WAP

# ONE-YEAR CERTIFICATE ENTREPRENEURSHIP

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	3	IDS102 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
ENT124	Managing Entrepreneurial Growth	3	ENT120	
ENT225	Global Entrepreneurship	3	ENT120	
MGT121	Principles of Management	3	BUS121 or ENT120	
	Total	15		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 or proficiency) and (IDS102 or proficiency)	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency	
or AOT226	Or	<b>or</b> 3	ITD100 or Proficiency	
AU1220	Microsoft - Spreadsheet Excel^	,	11D100 of 11offciency	
	Total	16		
	TOTAL CREDIT HOURS	31		

83

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122.

Effective Summer 2020

### ONE-YEAR CERTIFICATE ENTREPRENEURSHIP

2071

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS121	Business Administration^	3	IDS102 or Proficiency
ENT120	Entrepreneurship^	3	IDS102 or Proficiency
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
COM121	Effective Speaking	3	
BUS124	Business Analysis with Algebra^	<u>3</u>	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
		16	
Second Semester			
BUS221	Microeconomics^	3	IDS102 or Proficiency
MGT121	Principles of Management	3	BUS121 or ENT120
ENT124	Managing Entrepreneurial Growth	3	ENT120
ENT225	Global Entrepreneurship	3	ENT120
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency
or	or	or	
AOT226	Microsoft - Spreadsheet Excel <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		15	
	TOTAL CREDITS	31	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122



### ASSOCIATE OF APPLIED BUSINESS

## BUSINESS MANAGEMENT - SPORTS MANAGEMENT MAJOR

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	3	IDS102 or Proficiency	
MGT121	Principles of Management	3	BUS121 or ENT120	
MGT122	Introduction to Sports Management	3	BUS121	
MGT223	Business Decision Making	4	MGT121 and (ACC128 or ACC133)	
MGT232	International Business	3	BUS121	
MGT235	Facility and Event Management for Sports	3	MGT121 and MKT121 and ACC132	
MGT236	Sports and Ethics	3		
MKT121	Principles of Marketing	3	BUS221	
MKT225	Sports Sales	3	MKT121	
TECHNICAL EL	ECTIVE: Choose one (1) course			
MGT221	Supervision	3	MGT121	
MGT224	Human Resource Management	3	MGT121	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra^**	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency	
or	or	or	or	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3		
or	or	or		
MTH124	Statistics Ω	3	Check for prerequisites	
or MTH125	<b>or</b> College Algebra Ω	<b>or</b> 4		
W11 f1123	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	33-34		
	TOTAL CREDIT HOURS	64-65		

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>\*\*</sup>BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

### 2021 Catalog

Effective Summer 2020

### BUSINESS MANAGEMENT – SPORTS MANAGEMENT MAJOR

2081

### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

sh in two years.			
First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ACC130	Business Law and Ethics	3	
BUS121	Business Administration^	3	IDS102 or Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency
or	or	or	or
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
BUS124	Business Analysis with Algebra^**	3	(MTH022 or proficiency) and (IDS102 or proficiency)
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
		16	
Second Semester			
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
MGT121	Principles of Management	3	BUS121 or ENT120
MGT122	Introduction to Sports Management	3	BUS121
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	
MTH124	Statistics Ω	3	Check for prerequisites
or MTH125	<b>or</b> College Algebra Ω	<b>or</b> 4	
ACC132	Financial Accounting*	<u>4</u>	BUS124
ACC132	i manetai recounting	± 16-17	DC5124
Third Compator		10-17	
Third Semester	Defendant Consolina	2	
COM121	Effective Speaking	3	Dividadi
MKT121	Principles of Marketing	3	BUS221
MGT232	International Business	3	BUS121
ACC133	Managerial Accounting	4	ACC132
Technical Elective	2	<u>3</u>	Check for prerequisites
		16	
Fourth Semester			
MKT225	Sports Sales	3	MKT121
MGT223	Business Decision Making	4	MGT121 <b>and</b> (ACC128 or ACC133)
MGT235	Facility and Event Management for Sports	3	MGT121 and MKT121 and ACC132
MGT236	Sports and Ethics	3	
Arts & Humanities	Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
	TOTAL CREDITS	64-65	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>\*\*</sup>BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup> Technical Elective: MGT221, MGT224



### MARKETING AND SALES MANAGEMENT

ASSOCIATE OF APPLIED BUSINESS

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

2300



Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law and Ethics	3		
BUS121	Business Administration^	3	IDS102 or Proficiency	
MGT121	Principles of Management	3	BUS121 or ENT120	
MKT121	Principles of Marketing	3	BUS221	
MKT221	Sales	3	MKT121	
MKT222	Advertising	3	MKT121	
MKT229	Market Planning	4	MKT121	
	ECTIVE: Choose three (3) courses			
MGT221	Supervision	3	MGT121	
MKT226	Supply Chain Management	3	MKT121	
MKT227	Consumer Behavior	3	MKT121	
MKT233	Market Research	3	MKT121 and MTH108	
MKT236	E-Marketing	3	MKT121	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra^**	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency	
or	or	or	or	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3		
or	or	or		
MTH124	Statistics Ω	3	Check for prerequisites	
0r	Or Callege Algebra O	or		
MTH125	College Algebra Ω	4		
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	33-34		
	TOTAL CREDIT HOURS	64-65		

<sup>^</sup>Based upon SSC placement score

87

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>\*\*</sup>BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

### MARKETING AND SALES MANAGEMENT

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BUS121	Business Administration^	3	IDS102 <b>or</b> Proficiency
BUS124	Business Analysis with Algebra^**	3	(MTH022 <b>or</b> proficiency) <b>and</b>
	,		(IDS102 or proficiency)
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or
NATION OF		2	Proficiency
MTH108	Explorations in Modern Mathematics^	3	
<b>or</b> MTH124	or Statistics $\Omega$	<b>or</b> 3	Check for prerequisites
or	or	or	Check for prerequisites
MTH125	College Algebra Ω	<u>4</u>	
		16 <del>-</del> 17	
Second Semeste	<u>er</u>		
MKT121	Principles of Marketing	3	BUS221
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency
or	or	or	or
AOT226	Spreadsheet - Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
ACC132	Financial Accounting*	4	BUS124
COM121	Effective Speaking	3	
MGT121	Principles of Management	<u>3</u>	BUS121 or ENT120
		16	
Third Semester			
BUS222	Macroeconomics^	3	IDS102 or Proficiency
MKT221	Sales	3	MKT121
MKT222	Advertising	3	MKT121
ACC133	Managerial Accounting	4	ACC132
Technical Electi	ive <sup>2</sup>	<u>3</u>	Check for prerequisites
		16	
Fourth Semester	<del>-</del>		
MKT229	Market Planning	4	MKT121
ACC130	Business Law and Ethics	3	
Technical Electi		3	Check for prerequisites
Technical Electi		3	Check for prerequisites
Arts & Humanit	ties Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
	TOTAL CREDITS	64-65	

<sup>^</sup>Based upon SSC placement score

88

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH124 or MTH125 should only be taken by students planning to transfer to a four-year institution.

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

<sup>\*\*</sup>BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup> Technical Elective: MGT221, MKT226, MKT227, MKT233, MKT236



## CAREER ENHANCEMENT CERTIFICATE TAX PREPARER

2021 Catalog

Effective Summer 2020

2017

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC131	Taxation I	4	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC231	Taxation II	3	ACC131	
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 or proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
	TOTAL CREDIT HOURS	17		

### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	<u>Pre- and Co-requisites</u>
BUS124	Business Analysis with Algebra^	<u>3</u>	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)
		3	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
ACC131	Taxation I	<u>4</u>	pre-co-ACC132
		8	
Third Semester			
ACC231	Taxation II	3	ACC131
AOT226	Spreadsheet – Microsoft Excel^	<u>3</u>	ITD100 or proficiency
		6	
	TOTAL CREDITS	17	

89

<sup>^</sup>Based upon SSC placement score

<sup>\*</sup>Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.



## CAREER ENHANCEMENT CERTIFICATE QUICKBOOKS/PAYROLL

**2021 Catalog**Effective Summer 2020

2018

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Accounting and Finance Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC132	Financial Accounting*	4	BUS124	
ACC227	Payroll Accounting	4	pre-co-ACC121 <b>or</b> pre-co-ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) and (ACC121 or ACC132)	
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 or proficiency	
BUS124	Business Analysis with Algebra^	3	(MTH022 <b>or</b> proficiency) <b>and</b> (IDS102 <b>or</b> proficiency)	
	TOTAL CREDIT HOURS	17		

### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
BUS124	Business Analysis with Algebra^	3	(MTH022 or proficiency) and
A O.F.22.6		2	(IDS102 <b>or</b> proficiency)
AOT226	Spreadsheet – Microsoft Excel <sup>^</sup>	<u>3</u>	ITD100 or proficiency
		6	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
A GG227	D 11 A 2	4	pre-co-ACC121 <b>or</b>
ACC227	Payroll Accounting	<u>4</u>	pre-co-ACC132
		8	1
Third Semester			
A CC220	Commented at Association Associations	2	(AOT226 or ITD122) and
ACC229	Computerized Accounting Applications	<u>3</u>	(ACC121 or ACC132)
		3	
	TOTAL CREDITS	17	

<sup>^</sup>Based upon SSC placement score.

To become a QuickBooks Certified User, students must pass an exam administered by Certiport.

To become a <u>Certified Payroll Professional</u> or achieve the <u>Fundamental Payroll Certification</u>, students must pass an exam administered by the American Payroll Association.

<sup>\*</sup>Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.



### MAP

# CAREER ENHANCEMENT CERTIFICATE ENTREPRENEURSHIP

**2021 Catalog**Effective Summer 2020

2072

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Management and Marketing Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	3	IDS102 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
ENT124	Managing Entrepreneurial Growth	3	ENT120	
ENT225	Global Entrepreneurship	3	ENT120	
	TOTAL CREDIT HOURS	12		

### STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ENT120	Entrepreneurship^	3	IDS102 or Proficiency
BUS121	Business Administration^	<u>3</u>	IDS102 or Proficiency
		6	
Second Semester			
ENT124	Managing Entrepreneurial Growth	3	ENT120
ENT225	Global Entrepreneurship	<u>3</u>	ENT120
		6	
	TOTAL CREDITS	12	

91

<sup>^</sup>Based upon SSC placement score.

### COMPUTER SCIENCE, INFORMATION TECHNOLOGY, SECURITY AND DIGITAL MEDIA



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



# ASSOCIATE OF APPLIED BUSINESS COMPUTER TECHNOLOGY

2021 Catalog

Effective Summer 2020

**5000** 



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CIS121	Help Desk and Computer Support Concepts^▲	3	IDS102 or Proficiency	
CIS125	Data Analysis and Decision Making ▲	3	CPD121	
CIS221	Generating Reports for Decision Making ▲	3	CPD121	
CIS222	Data Acquisition and Analysis ▲	3	CIS125	
CPD123	Structured Query Language ▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123	
CPD225	Data Mining and Data Warehousing ▲	3	CPD123	
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123	
	Select two (2) Technical Elective from the list below <sup>3</sup> ▲	6	Check for prerequisites	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM122	Interpersonal Communication	3	None	
or	or	or	or	
COM123	Small Group Communication	3	IDS102 or Proficiency	
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or Proficiency	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 <b>or</b> Proficiency	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
WDD121	Internet Design and Development <sup>^</sup>	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	61		

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>&</sup>lt;sup>3</sup>Technical Elective: CIS224, CPD221, GIS123

Effective Summer 2020

### **COMPUTER TECHNOLOGY**

5000

### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CIS121	Help Desk and Computer Support Concepts^▲	3	IDS102 or Proficiency
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency)
		_	and (ITD100 or Proficiency)
		13	`
Second Semester			
CIS126	Fundamentals of Information Systems^▲	3	IDS102 or Proficiency
CPD123	Structured Query Language ▲	3	CPD121
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or
			Proficiency
MTH108	Explorations in Modern Mathematics^	<u>3</u>	MTH022 or MTH023
	1	<del>-</del>	or Proficiency
		12	•
Summer Semester			
COM121	Effective Speaking	3	None
or	or	or	or
COM122	Interpersonal Communication	3	None
or	or	or	or
COM123	Small Group Communication	3	IDS102 or Proficiency
Social Science Elective <sup>2</sup>	•	<u>3</u>	Check for prerequisites
		<del>-</del> 6	• • •
Third Semester			
CIS125	Data Analysis and Decision Making ▲	3	CPD121
CIS221	Generating Reports for Decision Making ▲	3	CPD121
CSE122	Programming Logic and Problem Solving <sup>^</sup>	3	(IDS102 or Proficiency)
			and (ITD100 or Proficiency)
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123
CPD225	Data Mining and Data Warehousing ▲	<u>3</u>	CPD123
		15	
Fourth Semester			
CIS222	Data Acquisition and Analysis ▲	3	CIS125
CSE236	Analyzing Software Requirements and	3	(CIS221 or CSE229 or CSE233 or CSE231
	Developing Solutions ▲		or WDD221 or CSE227 or WDD224 or
	1 0		WDD222 or WDD226) and CPD123
Technical Elective <sup>3</sup> $\blacktriangle$		3	Check for prerequsites
Technical Elective <sup>3</sup> $\blacktriangle$		3	Check for prerequsites
Arts & Humanities Elect	$tive^{I}$	<u>3</u>	Check for prerequisites
		15	
	TOTAL CREDITS	61	
AD 1 000 1			

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>&</sup>lt;sup>3</sup>Technical Electives: CIS224, CPD221, GIS123



### ASSOCIATE OF APPLIED BUSINESS

### 2021 Catalog

#### Effective Summer 2020

5011

## COMPUTER TECHNOLOGY - HELP DESK/COMPUTER SUPPORT SPECIALIST MAJOR



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CIS125	Data Analysis and Decision Making ▲	3	CPD121	
CIS221	Generating Reports for Decision Making ▲	3	CPD121	
CIS224	Advanced Help Desk ▲	3	CIS121	
CPD123	Structured Query Language ▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123	
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123	
NET120	PC Upgrading and Maintenance ▲	3		
NET121	Introduction to Computer Networking ▲	3		
NET131	Microsoft Client Operating System ▲	3	NET120 and NET121	
NET244	Microsoft Networking I▲	3	NET120 and NET121	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM122	Interpersonal Communication	3	None	
or	or	or	0r	
COM123	Small Group Communication	3	IDS102 or Proficiency	
CIS121	Help Desk and Computer Support Concepts^▲	3	IDS102 or Proficiency	
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or Proficiency	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
WDD121	Internet Design and Development^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	61		

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup> Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

Effective Summer 2020

### COMPUTER TECHNOLOGY - HELP DESK/COMPUTER SUPPORT SPECIALIST MAJOR

5011

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101 CIS121 CIS126	Student Success Seminar^^ Help Desk and Computer Support Concepts^▲ Fundamentals of Information Systems▲	Credit Hours  1 3 3	Pre- and Co-requisites  Take first semester  IDS102 or Proficiency  IDS102 or Proficiency
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		16	•
Second Semester		2	GDD 121
CIS125	Data Analysis and Decision Making ▲	3	CPD121
CIS224	Advanced Help Desk ▲	3	CIS121
NET120	PC Upgrading and Maintenance ▲	3	
NET121	Introduction to Computer Networking ▲	<u>3</u>	
		12	
Summer Semester			
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
MTH108	Explorations in Modern Mathematics^	<u>3</u>	MTH022 or MTH023
141111100	Explorations in Wodern Wathermatics		or Proficiency
		6	
Third Semester			
CIS221	Generating Reports for Decision Making ▲	3	CPD121
NET244	Microsoft Networking I▲	3	NET120 and NET121
CPD123	Structured Query Language ▲	3	CPD121
NET131	Microsoft Client Operating System ▲	<u>3</u>	NET120 and NET121
		12	
Fourth Semester			
Arts & Humanities E	lective <sup>1</sup>	3	Check for prerequisites
Social Science Electi	$ve^2$	3	Check for prerequisites
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123
COM121	Effective Speaking	3	None
or	or	or	or
COM122	Interpersonal Communication	3	None
or	or	or	or
COM123	Small Group Communication	3	IDS102 or Proficiency
CSE236	Analyzing Software Requirements and	<u>3</u>	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or
CSE230	Developing Solutions ▲	<del>-</del>	WDD224 or WDD222 or WDD226) and CPD123
		15	anu CPD125
	TOTAL CREDITS	61	
	TOTAL CREDITS	01	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup> <u>Social Science Electives</u>: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225



### MAP MY ACADEMIC PLAN

# ONE-YEAR CERTIFICATE DATA ANALYTICS

2021 Catalog

Effective Summer 2020

5014

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CIS125	Data Analysis and Decision Making ▲	3	CPD121	
CIS221	Generating Reports for Decision Making ▲	3	CPD121	
CIS222	Data Acquisition and Analysis ▲	3	CIS125	
CPD123	Structured Query Language▲	3	CPD121	
CPD221	Oracle Database: PL/SQL Programming ▲	3	CPD123 and CSE122	
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123	
CPD225	Data Mining and Data Warehousing ▲	3	CPD123	
	Total	21		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CIS126	Fundamentals of Information Systems ▲	3	(IDS102 or Proficiency)	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Total	10		
	TOTAL CREDIT HOURS	31		

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

### 2021 Catalog

Effective Summer 2020

### ONE-YEAR CERTIFICATE DATA ANALYTICS

**5014** 

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

Summer Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CIS126	Fundamentals of Information Systems^▲	3	(IDS102 or Proficiency)
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency)
CSE122	Programming Logic and Problem Solving^	<u>3</u>	and (ITD100 or Proficiency) (IDS102 or Proficiency) and (ITD100 or Proficiency)
		10	•
First Semester			
CIS125	Data Analysis and Decision Making A	3	CPD121
CIS221	Generating Reports for Decision Making ▲	3	CPD121
CPD123	Structured Query Language▲	<u>3</u>	CPD121
		9	
Second Semester			
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123
CIS222	Data Acquisition and Analysis ▲	3	CIS125
CPD221	Oracle Database: PL/SQL Programming ▲	3	CPD123 and CSE122
CPD225	Data Mining and Data Warehousing	<u>3</u>	CPD123
		12	
	TOTAL CREDITS	31	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

# Stark State COLLEGE

## ONE-YEAR CERTIFICATE COMPUTER MAINTENANCE & DESKTOP

2021 Catalog

Effective Summer 2020

5026

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SUPPORT TECHNICIAN

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or Proficiency	
CIS224	Advanced Help Desk ▲	3	CIS121	
CPD123	Structured Query Language▲	3	CPD121	
NET120	PC Upgrading and Maintenance▲	3		
NET121	Introduction to Computer Networking▲	3		
NET131	Microsoft Client Operating System▲	3	NET120 and NET121	
NET244	Microsoft Networking I▲	3	NET120 and NET121	
	Total	21		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CIS121	Help Desk and Computer Support Concepts^▲	3	IDS102 or Proficiency	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
	Total	10		
	TOTAL CREDIT HOURS	31		

<sup>^</sup>Based on SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

### **ONE-YEAR CERTIFICATE**

## COMPUTER MAINTENANCE & DESKTOP SUPPORT TECHNICIAN

5026

Effective Summer 2020

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

Summer Semester		Credit Hours	Pre- or Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency
CPD121	Data Modeling and Database Design <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		7	
Second Semester			
CIS121	Help Desk and Customer Support Concepts^▲	3	IDS102 or Proficiency
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or Proficiency
NET120	PC Upgrading and Maintenance▲	3	
NET121	Introduction to Computer Networking▲	<u>3</u>	
		12	
Third Semester			
CPD123	Structured Query Language▲	3	CPD121
NET244	Microsoft Networking I ▲	3	NET120 and NET121
CIS224	Advanced Help Desk ▲	3	CIS121
NET131	Microsoft Client Operating Systems ▲	<u>3</u>	NET120 and NET121
		12	
	TOTAL CREDITS	31	

<sup>^</sup>Based on SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



### MAP

## ASSOCIATE OF APPLIED BUSINESS WEB DESIGN AND DEVELOPMENT

**2021 Catalog**Effective Summer 2020

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**5100** 

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123	
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123	
WDD122	Web Graphics Design ▲	3	WDD121	
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121	
WDD222	Advanced Cascading Style Sheets ▲	3	WDD121	
WDD223	Content Management System Design and Development ▲	3	CPD121 and WDD121	
WDD224	Active Server Page Development ▲	3	CSE122 and WDD121	
WDD225	ASP .Net MVC Development ▲	3	CSE122 and WDD121	
WDD226	Web Development with PHP and MySQL ▲	3	CSE122 and WDD121	
WDD229	Advanced Web Design ▲	3	WDD122	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or proficiency	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM122	Interpersonal Communication	3	None	
or	or	or	or	
COM123	Small Group Communication	3	IDS102 or Proficiency	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CPD123	Structured Query Language ▲	3	CPD121	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
WDD121	Internet Design and Development^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	61		

<sup>^</sup>Based upon SSC placement score

101

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	<u>Credit Hours</u> 1	Take first semester
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency)
CIDIZI	Butta Wodering and Buttabase Besign	3	and (ITD100 or Proficiency)
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency)
002122	110814111111111111111111111111111111111	· ·	and (ITD100 or Proficiency)
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or
	1	-	Proficiency
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or Proficiency
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency)
		16	and (ITD100 or Proficiency)
Second Semester			•
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023
	•		or Proficiency
CPD123	Structured Query Language ▲	3	CPD121
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121
WDD222	Advanced Cascading Style Sheets ▲	3	WDD121
WDD224	Active Server Page Development ▲	<u>3</u>	CSE122 and WDD121
		15	
Summer Semester			
COM121	Effective Speaking	3	None
or	or	or	or
COM122	Interpersonal Communication	3	None
or	or	or	or
COM123	Small Group Communication	3	IDS102 or Proficiency
Arts & Humanities El	lective <sup>1</sup>	3 6	Check for prerequisites
		6	
Third Semester	. 2	2	
Social Sciences Electr		3	WDD121
WDD122	Web Graphics Design ▲	3	WDD121
WDD225 WDD226	ASP .Net MVC Development ▲ Web Development with PHP and MySQL ▲	3 <u>3</u>	CSE122 and WDD121
WDD220	web Development with FHF and MySQL	<u>3</u> 12	CSE122 and WDD121
Fourth Semester		12	
CSE236	Analyzing Software Requirements and Developing		(CIS221 or CSE229 or CSE233 or
CBLLIO	Solutions A	3	CSE231 or WDD221 or CSE227 or
	2014410112	· ·	WDD224 or WDD222 or WDD226)
			and CPD123
WDD223	Content Management System Design and		
	Development ▲	3	CPD121 and WDD121
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123
WDD229	Advanced Web Design ▲	<u>3</u>	WDD122
		12	
	TOTAL CREDITS	61	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225



### WAP

# ONE-YEAR CERTIFICATE WEB DESIGN

2021 Catalog

Effective Summer 2020

5125

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD123	Structured Query Language▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD123	
WDD122	Web Graphics Design ▲	3	WDD121	
WDD223	Content Management Systems Design and Development ▲	3	CPD121 and WDD121	
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121	
WDD222	Advanced Cascading Style Sheets ▲	3	WDD121	
WDD229	Advanced Web Design ▲	3	WDD122	
	Total	21		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
WDD121	Internet Design and Development ^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Total	10		
	TOTAL CREDIT HOURS	31		

103

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

Effective Summer 2020

## ONE-YEAR CERTIFICATE WEB DESIGN

5125

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

Summer Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		7	<u></u> (,/
Second Semester			
MTH108	Explorations in Modern Mathematics^	3	MTH022 <b>or</b> MTH023 <b>or</b> Proficiency
WDD122	Web Graphics Design ▲	3	WDD121
WDD223	Content Management Systems Design and Development ▲	3	CPD121 and WDD121
CPD123	Structured Query Language ▲	<u>3</u>	CPD121
		12	
Third Semester			
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD123
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121
WDD222	Advanced Cascading Style Sheets ▲	3	WDD121
WDD229	Advanced Web Design ▲	<u>3</u>	WDD122
		12	
	TOTAL CREDITS	31	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



### ASSOCIATE OF APPLIED BUSINESS

### **COMPUTER PROGRAMMING AND DATABASE**

**2021 Catalog**Effective Summer 2020

**5200** 



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CIS125	Data Analysis and Decision Making ▲	3	CPD121	
CIS221	Generating Reports for Decision Making ▲	3	CPD121	
CIS222	Data Acquisition and Analysis ▲	3	CIS125	
CPD221	Oracle Database: PL/SQL Programming ▲	3	CPD123 and CSE122	
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123	
CPD225	Data Mining and Data Warehousing ▲	3	CPD123	
CSE229	.Net Development ▲	3	CSE122	
CSE230	Advanced .Net Development ▲	3	CSE229	
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123	
WDD226	Web Development with PHP and MySQL ▲	3	CSE122 and WDD121	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM122	Interpersonal Communication	3	None	
or	or	or	or	
COM123	Small Group Communication	3	IDS102 or Proficiency	
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or Proficiency	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CPD123	Structured Query Language ▲	3	CPD121	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
WDD121	Internet Design and Development <sup>^</sup>	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
Total				
TOTAL CREDIT HOURS				

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101 CIS126	Student Success Seminar^^ Fundamentals of Information Systems^▲	Credit Hours 1 3	Pre- and Co-requisites  Take first semester  IDS102 or Proficiency
CPD121	Data Modeling and Database Design^	3	(IDS102 of Proficiency)  and (ITD100 or Proficiency)
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
g 1.g		13	
Second Semester CPD123	Structured Query Language ▲	2	CDD121
CSE229	Net Development ▲	3 3	CPD121 CSE122
	*		MTH022 <b>or</b> MTH023
MTH108	Explorations in Modern Mathematics^	3	or Proficiency
CIS125	Data Analysis and Decision Making ▲	<u>3</u>	CPD121
		12	
Summer Semester			G 5119024 G 5119044
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
Arts & Humanities Elective <sup>1</sup>		<u>3</u>	Check for prerequisites
m		6	
Third Semester	Ecc (; C 1;	2	NI
COM121	Effective Speaking	3	None
or COM122	or Interpersonal Communication	<b>or</b> 3	<b>or</b> None
or	or	<b>or</b>	or
COM123	Small Group Communication	3	IDS102 <b>or</b> Proficiency
CPD221	Oracle Database: PL/SQL Programming ▲	3	CPD123 and CSE122
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123
CSE230	Advanced .Net Development ▲	3	CSE229
WDD226	Web Development with PHP and MySQL▲	<u>3</u>	CSE122 and WDD121
		15	
Fourth Semester			
CIS221	Generating Reports for Decision Making ▲	3	CPD121
			(CIS221 or CSE229 or CSE233 or
CSE236	Analyzing Software Requirements and Developing	3	CSE231 or WDD221 or CSE227 or
CSE230	Solutions <b>▲</b>	3	WDD224 or WDD222 or WDD226)
			and CPD123
CIS222	Data Acquisition and Analysis ▲	3	CIS125
CPD225	Data Mining and Data Warehousing ▲	3	CPD123
Social Science Elective	$e^2$	<u>3</u>	Check for prerequisites
		15	
	TOTAL CREDITS	61	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225



## WAP

# ONE-YEAR CERTIFICATE DATABASE SYSTEMS

2021 Catalog

Effective Summer 2020

5204

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CIS125	Data Analysis and Decision Making	3	CPD121	
CPD123	Structured Query Language▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123	
WDD226	Web Development with PHP and MYSQL ▲	3	CSE122 and WDD121	
CPD225	Data Mining and Data Warehousing ▲	3	CPD123	
CIS221	Generating Reports for Decision Making ▲	3	CPD121	
	Total	18		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
WDD121	Internet Design and Development^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Total	13		
	TOTAL CREDIT HOURS	31		

107

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

## ONE-YEAR CERTIFICATE

**DATABASE SYSTEMS** 

5204

### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

Summer Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency)
CSE122	Programming Logic and Problem Solving^	3	<ul><li>and (ITD100 or Proficiency)</li><li>(IDS102 or Proficiency)</li><li>and (ITD100 or Proficiency)</li></ul>
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency)
		10	and (ITD100 or Proficiency)
Second Semester			
CPD123	Structured Query Language▲	3	CPD121
CIS221	Generating Reports for Decision Making ▲	3	CPD121
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023
WDD226	Web Development with PHP and MYSQL▲	<u>3</u>	or Proficiency CSE122 and WDD121
		12	
Third Semester			
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123
CPD225	Data Mining and Data Warehousing ▲	3	CPD123
CIS125	Data Analysis and Decision Making	<u>3</u>	CPD121
		9	
	TOTAL CREDITS	31	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



## WAP

### ASSOCIATE OF APPLIED BUSINESS

# COMPUTER PROGRAMMING AND DATABASE - GEOGRAPHIC INFORMATION SYSTEMS MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

5205

2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD123	Structured Query Language ▲	3	CPD121	
CSE235	Python Development ▲	3	CSE122	
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123	
GIS123	Maps and Map Reading ▲	3		
GIS231	Geographic Information Systems ▲	3	GIS123 or ENV223	
GIS233	Advanced Tools in Geospatial Technologies ▲	3	GIS231	
GIS234	Geospatial Technologies in Industry ▲	3	GIS233	
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121	
	Select two (2) Technical Electives from the list below³ ▲	6	Check for prerequisites	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	IDS102 or Proficiency	
COM121	Effective Speaking	3	None	
or COM122	or Interpersonal Communication	<b>or</b> 3	<b>or</b> None	
or COM123	or Small Group Communication	<b>or</b> 3	or IDS102 or Proficiency	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
DET125	Basic AutoCAD	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
WDD121	Internet Design and Development^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	61		

<sup>^</sup>Based on SSC placement score

109

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Elective: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>&</sup>lt;sup>3</sup>Technical Electives: CET227, CET236, CPD221, CPD222, CPD224, CSE229, CSE231, DET126, DET230, PET101

# COMPUTER PROGRAMMING AND DATABASE - GEOGRAPHIC INFORMATION SYSTEMS MAJOR

5205

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

ish in two years.			
<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CIS126	Fundamentals of Information Systems^▲	3	IDS102 or Proficiency
	·		(IDS102 or Proficiency)
CPD121	Data Modeling and Database Design <sup>^</sup>	3	and (ITD100 or Proficiency)
GIS123	Maps and Map Reading ▲	3	,
WDD121	Internat Design and Development	2	(IDS102 or Proficiency)
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	and (ITD100 or Proficiency)
		13	
Second Semester			
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency)
			and (ITD100 or Proficiency)
CPD123	Structured Query Language ▲	3	CPD121
GIS231	Geographic Information Systems ▲	3	GIS123 or ENV223
Arts & Humanities Ele	ective <sup>I</sup>	3	
Social Science Electiv	$e^2$	<u>3</u>	Check for prerequisites
		15	
Summer Semester			
ENG124	Callege Commercition	3	Co-ENG024 or Co-ENG011 or
ENG124	College Composition^	3	Proficiency
MTHIO		2	MTH022 or MTH023
MTH108	Explorations in Modern Mathematics^	<u>3</u>	or Proficiency
		6	
Third Semester			
COM121	Effective Speaking	3	None
or	or	or	or
COM122	Interpersonal Communication	3	None
or	or	or	or
COM123	Small Group Communication	3	IDS102 or Proficiency
CSE235	Python Development ▲	3	CSE122
DET125	Basic AutoCAD	3	
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121
GIS233	Advanced Tools in Geospatial Technologies ▲	<u>3</u>	GIS231
		15	
Fourth Semester			
GIS234	Geospatial Technologies in Industry ▲	3	GIS233
			(CIS221 or CSE229 or CSE233 or
	Analyzing Software Requirements and Developing		CSE231 or WDD221 or CSE227 or
CSE236	Solutions ▲	3	WDD224 or WDD222 or WDD226)
	Solutions =		and CPD123
Technical Elective <sup>3</sup> ▲		3	Check for prerequisites
Technical Elective <sup>3</sup> ▲		<u>3</u>	Check for prerequisites  Check for prerequisites
1 connear License		12	Check for prerequisites
	TOTAL CREDITS	61	
	TOTAL CREDITS	01	

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Elective: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>&</sup>lt;sup>3</sup>Technical Electives: CET227, CET236, CPD221, CPD222, CPD224, CSE229, CSE231, DET126, DET230, PET101



### **ONE-YEAR CERTIFICATE**

## **GEOGRAPHIC INFORMATION SYSTEMS SPECIALIST**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

5208

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD123	Structured Query Language▲	3	CPD121	
CSE235	Python Development ▲	3	CSE122	
GIS123	Maps and Map Reading ▲	3		
GIS231	Geographic Information Systems ▲	3	GIS123	
	Select two (2) Technical Electives from the list below <sup>1</sup> ▲	6	Check for prerequisites	
	Total	18		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CIS126	Fundamentals of Information Systems <sup>^</sup> ▲	3	(IDS102 or Proficiency)	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
DET125	Basic AutoCAD	3		
	Total	13		
	TOTAL CREDIT HOURS	31		

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Technical Electives: CET227, CET236, CPD221, CPD224, CSE229, CSE231, DET126, DET230, PET101

### 2021 Catalog

Effective Summer 2020

#### **ONE-YEAR CERTIFICATE**

# GEOGRAPHIC INFORMATION SYSTEMS SPECIALIST

5208

### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

Summer Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CIS126	Fundamentals of Information Systems^▲	3	(IDS102 or Proficiency)
CSE122	Programming Logic and Problem Solving^	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		7	
<u>First Semester</u>			
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
GIS123	Maps and Map Reading▲	3	
Technical Elective <sup>1</sup>	<b>A</b>	3	Check for prerequisites
DET125	Basic AutoCAD	<u>3</u>	
		12	
Second Semester			
CPD123	Structured Query Language▲	3	CPD121
CSE235	Python Development ▲	3	CSE122
GIS231	Geographic Information Systems ▲	3	GIS123
Technical Elective <sup>1</sup>	<b>A</b>	<u>3</u>	Check for prerequisites
		12	
	TOTAL CREDITS	31	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Technical Electives: CET227, CET236, CPD221, CPD224, CSE229, CSE231, DET126, DET230, PET101



## COMPUTER SCIENCE AND ENGINEERING

## 2021 Catalog

Effective Summer 2020

**5250** 



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

ASSOCIATE OF APPLIED SCIENCE

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD123	Structured Query Language ▲	3	CPD121	
CSE229	.Net Development ▲	3	CSE122	
CSE230	Advanced .Net Development ▲	3	CSE229	
CSE231	Java Programming ▲	3	CSE122	
CSE232	Advanced Java Programming ▲	3	CSE231	
CSE233	C++ Programming ▲	3	CSE122	
CSE234	Advanced C++ Programming ▲	3	CSE233	
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123	
	Select two (2) Technical Electives from the list below³ ▲	6	Check for prerequisites	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM122	Interpersonal Communication	3	None	
or COM123	or Small Group Communication	<b>or</b> 3	or IDS102 or Proficiency	
CIS126	Fundamentals of Information Systems <sup>^</sup>	3	IDS102 or Proficiency	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
CSE121	Mobile Development Architecture ▲	3	pre-co-CSE122	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
WDD121	Internet Design and Development <sup>^</sup>	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Total	33		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based upon SSC placement score

113

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>&</sup>lt;sup>3</sup>Technical Electives: CSE221, CSE222, CSE226, WDD224, WDD225, WDD226

### **COMPUTER SCIENCE AND ENGINEERING**

5250

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

sh in two years.			
First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency)
CIDIZI	Bata Wodering and Batabase Besign	3	and (ITD100 or Proficiency)
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency)
			and (ITD100 or Proficiency)
CSE121	Mobile Development Architecture ▲	3	pre-co-CSE122
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency)
			and (ITD100 or Proficiency)
g 1.g		13	
Second Semester	G 10 I	2	CDD 121
CPD123	Structured Query Language ▲	3	CPD121
CSE229	.Net Development ▲	3	CSE122
CSE231	Java Programming ▲	3	CSE122
CSE233	C++ Programming ▲	3	CSE122
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
G G .		15	
Summer Semester	Ecc. 4. G. 1.	2	N
COM121	Effective Speaking	3	None
or COM122	or Interpersonal Communication	<b>or</b> 3	<b>or</b> None
	-		or
or COM123	or Small Group Communication	<b>or</b> 3	IDS102 or Proficiency
Social Science Electi		<u>3</u>	Check for prerequisites
Social Science Liecii	ve	<u>5</u> 6	Check for prerequisites
Third Semester		U	
CIS126	Fundamentals of Information Systems^▲	3	IDS102 or Proficiency
CSE230	Advanced .Net Development \( \blacktriangle \)	3	CSE229
CSE232	Advanced Java Programming	3	CSE231
CSE234	Advanced C++ Programming A	3	CSE233
Technical Elective <sup>3</sup> ▲		<u>3</u>	Check for prerequisites
Teenment Eteenve =	•	<u>=</u> 15	encenjor prerequisites
Fourth Semester		15	
Arts & Humanities E	lective <sup>1</sup>	3	Check for prerequisites
11.15 & 11		J	(CIS221 or CSE229 or CSE233 or CSE231
CSE236	Analyzing Software Requirements and Developing	3	or WDD221 or CSE227 or WDD224 or
	Solutions <b>▲</b>		WDD222 or WDD226) and CPD123
	Precalculus^- A student may take MTH125		,
MTH135	(College Algebra) and MTH130 (Trigonometry)	5	MTH025 or Proficiency
	over two semesters to satisfy this requirement.		•
Technical Elective³ ▲	L Company of the Comp	<u>3</u>	Check for prerequisites
		14	
	TOTAL CREDITS	63	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>&</sup>lt;sup>3</sup>Technical Electives: CSE221, CSE222, CSE226, WDD224, WDD225, WDD226



# WAP

### ASSOCIATE OF APPLIED SCIENCE

# COMPUTER SCIENCE & ENGINEERING - VIDEO GAME DESIGN AND DEVELOPMENT MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

**2021 Catalog**Effective Summer 2020

5253

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SGE221	Advanced Gaming and Simulation Topics ▲	3	SGE222	
SGE222	3D Game Design and Development ▲	3	SGE223	
SGE223	2D Game Design and Development ▲	3	CSE122 and SGE121	
SGE224	Game Programming I▲	3	CSE122	
SGE225	Assets for Games ▲	3	SGE121	
SGE226	Game Programming II ▲	3	SGE224	
SGE230	Game Portfolio ▲	3	pre-co-SGE221	
	Choose One Track	from below	:	
Web Design Track	τ			
WDD222	Advanced Cascading Style Sheets ▲	3	WDD121	
WDD226	Web Development with PHP and MySQL ▲	3	CSE122 and WDD121	
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121	
Computer Science	Track			
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE233	C++ Programming ▲	3	CSE122	
CSE231	Java Programming ▲	3	CSE122	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM122	Interpersonal Communication	3	None	
or	or	or	or	
COM123	Small Group Communication	3	IDS102 or Proficiency	
CSE121	Mobile Development Architecture ▲	3	pre-co-CSE122	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
SGE121	Game Design^▲	3	IDS102 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
WDD121	Internet Design and Development <sup>^</sup>	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
IMT129	Digital Audio Recording and Editing	3		
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Total	33		
	TOTAL CREDIT HOURS	63		

See footnotes on reverse side.

# COMPUTER SCIENCE & ENGINEERING - VIDEO GAME DESIGN AND DEVELOPMENT MAJOR

5253

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101 CSE121	Student Success Seminar^^ Mobile Development Architecture ▲	Credit Hours  1 3	Pre- and Co-requisites  Take first semester  pre-co-CSE122
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency)
SGE121	Game Design^▲	3	and (ITD100 or Proficiency) IDS102 or Proficiency
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency)
		13	and (ITD100 or Proficiency)
Second Semester			
Track Elective I▲		3	Check for prerequisites
SGE224	Game Programming I▲	3	CSE122
SGE225	Assets for Games ▲	3	SGE121
SGE223	2D Game Design and Development ▲	3	CSE122 and SGE121
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
g g ,		15	
Summer Semester	Tice of Co. 1.	2	N
COM121	Effective Speaking	3	None
0r	or	or	or
COM122	Interpersonal Communication	3	None
0r	Or Small Crown Communication	or	Or
COM123 Social Science Elec	Small Group Communication	3	IDS102 <b>or</b> Proficiency
Social Science Elec	nve-	3	Check for prerequisites
Th:1 C		6	
Third Semester  Arts & Humanities	Floatival	3	Check for propagatisites
Track Elective II	Енесиче	3	Check for prerequisites
SGE226	Game Programming II ▲	3	Check for prerequisites SGE224
SGE220 SGE222	3D Game Design and Development ▲	3	SGE224 SGE223
IMT129	Digital Audio Recording and Editing	3 <u>3</u>	SGE223
1W11129	Digital Audio Recording and Editing	<u>3</u> 15	
Fourth Semester		15	
Track Elective III ▲		2	Chack for muono qui sitos
SGE221	Advanced Gaming and Simulation Topics ▲	3 3	Check for prerequisites SGE222
SGE221 SGE230	Game Portfolio	3	
SGE230		3	pre-co-SGE221
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over	<u>5</u>	MTH025 or Proficiency
WITITIOS	two semesters to satisfy this requirement.	<u>5</u>	WITH023 of Honelency
	ino semesiers to suitsfy this requirement.	14	
	TOTAL CREDITS	63	
Based upon SSC placeme		<i>50</i>	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225 See reverse side for Track Options.

# Stark State

## ABBOCIA

### ASSOCIATE OF APPLIED SCIENCE

# COMPUTER SCIENCE & ENGINEERING - MOBILE APPLICATION DEVELOPMENT MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year	
CSE221	Android Development 1 ▲	3	CSE231		
CSE222	iOS Development 1 ▲	3	CSE121		
CSE224	Android Development 2 ▲	3	CSE221		
CSE225	Cross-Platform Mobile Application Development ▲	3	CSE122 and WDD121		
CSE226	XAML Development ▲	3	CSE231		
CSE231	Java Programming ▲	3	CSE122		
CSE232	Advanced Java Programming ▲	3	CSE231		
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123		
WDD221	Web Development with JavaScript▲	3	CSE122 and WDD121		
WDD222	Advanced Cascading Style Sheets ▲	3	WDD121		
	Total	30			
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year	
SSC101	Student Success Seminar^^	1	Take first semester		
COM121	Effective Speaking	3	None		
or	or	or	or		
COM122	Interpersonal Communication	3	None		
or	or	or	or		
COM123	Small Group Communication	3	IDS102 or Proficiency		
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)		
CSE121	Mobile Development Architecture ▲	3	Co-CSE122		
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency		
CIS126	Fundamentals of Information Systems^▲	3	IDS102 or Proficiency		
MTH125	College Algebra^	4	Pre-co-MTH025 or MTH023 or Proficiency		
WDD121	Internet Design and Development^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)		
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites		
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites		
	Total 32				
	TOTAL CREDIT HOURS	62			

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote, student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Elective: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

# COMPUTER SCIENCE & ENGINEERING – MOBILE APPLICATION DEVELOPMENT MAJOR

5475

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101	Student Success Seminar^^	Credit Hours	Pre- and Co-requisites  Take first semester
CPD121		1 3	
CPD121	Data Modeling and Database Design <sup>^</sup>	3	(IDS102 or Proficiency)
CSE121	Mahila Danalannant Anahitaatan A	2	and (ITD100 or Proficiency) Co-CSE122
	Mobile Development Architecture ▲	3	
CSE122	Programming Logic and Problem Solving <sup>^</sup>	3	(IDS102 or Proficiency)
WDD101	Internet Design and Development	2	and (ITD100 or Proficiency)
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency)
C 1 C		13	and (ITD100 or Proficiency)
Second Semeste		2	CSE122
CSE231	Java Programming ▲	3	CSE122
MTH125	College Algebra^	4	Pre-co-MTH025 or MTH023
WDD222		2	or Proficiency
WDD222	Advanced Cascading Style Sheets ▲	3	WDD121
WDD221	Web Development with JavaScript ▲	<u>3</u>	CSE122 and WDD121
a a		13	
Summer Semest			
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
		_	Proficiency
Social Science I	Elective <sup>2</sup>	<u>3</u> <b>6</b>	Check for prerequisites
		6	
Third Semester			
Arts & Humanit		3	Check for prerequisites
COM121	Effective Speaking	3	None
or	or	or	or
COM122	Interpersonal Communication	3	None
or	or	or	or
COM123	Small Group Communication	3	IDS102 or Proficiency
CSE221	Android Development 1 ▲	3	CSE231
CSE222	iOS Development 1 ▲	3	CSE121
CIS126	Fundamentals of Information Systems^▲	<u>3</u>	IDS102 or Proficiency
		15	
Fourth Semester	<u>.</u>		
CSE232	Advanced Java Programming ▲	3	CSE231
CSE224	Android Development 2 ▲	3	CSE221
CSE225	Cross-Platform Mobile Application	3	CSE122 and WDD121
CSE223	Development ▲	3	CSE122 and WDD121
CSE226	XAML Development ▲	3	CSE231
CSE236	Analyzing Software Requirements and	<u>3</u>	(CIS221 or CSE229 or CSE233 or
	Developing Solutions ▲	<u> </u>	CSE231 or WDD221 or CSE227 or
		15	WDD224 or WDD222 or WDD226)
			and CPD123
1 000 1	TOTAL CREDITS	62	
Based on SSC placemen	it score		

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote, student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Elective: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225



## MAP

# ONE-YEAR CERTIFICATE MOBILE DEVELOPMENT

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CSE221	Android Development 1 ▲	3	CSE231	
CSE222	iOS Development 1 ▲	3	CSE121	
CSE226	XAML Development ▲	3	CSE231	
CSE231	Java Programming ▲	3	CSE122	
CSE232	Advanced Java Programming ▲	3	CSE231	
WDD221	Web Development with JavaScript ▲	3	CSE122 and WDD121	
WDD222	Advanced Cascading Style Sheets ▲	3	WDD121	
	Total	21		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CSE121	Mobile Development Architecture ▲	3	Co-CSE122	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
WDD121	Internet Design and Development^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Total	10		
	TOTAL CREDIT HOURS	31		

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

# ONE-YEAR CERTIFICATE MOBILE DEVELOPMENT

**5476** 

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

Summer Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CSE121	Mobile Development Architecture^▲	3	Co-CSE122
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(ITD100 or Proficiency) (IDS102 or Proficiency <b>and</b>
WDD121	internet Design and Development.	10	(ITD100 or Proficiency
		10	
First Semester			
CSE231	Java Programming ▲	3	CSE122
CSE222	iOS Development 1 ▲	3	CSE121
WDD221	Web Development with JavaScript ▲	<u>3</u>	CSE122 and WDD121
		9	
Second Semester			
CSE232	Advanced Java Programming ▲	3	CSE231
CSE226	XAML Development ▲	3	CSE231
CSE221	Android Development 1 ▲	3	CSE231
WDD222	Advanced Cascading Style Sheets ▲	<u>3</u>	WDD121
		12	
	TOTAL CREDITS	31	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



# ASSOCIATE OF APPLIED SCIENCE 3D MOTION GRAPHICS TECHNOLOGY

2021 Catalog

Effective Summer 2020

**5300** 



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT125	3D Graphics Modeling	3		
IMT136	Principles of Animation	3		
IMT227	3D Graphics Animation ▲ -	3	IMT136 and IMT125	
IMT237	Compositing	3	IMT223	
IMT240	Advanced 3D Graphics Modeling ▲-	3	IMT125	
IMT243	Advanced Compositing <b>A</b> +	3	IMT237	
IMT245	Graphic Arts Design II	3	IMT122	
IMT249	Textures for 2D and 3D Design ▲ -	3	IMT122 and IMT125	
IMT265	Motion Graphics Portfolio	3	IMT268	
IMT268	Advanced Video Editing	3	IMT223	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO126	Science, Energy, and the Environment (lab)	4		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD123	MAC Concepts	1		
IMT121	Interactive Media	3		
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
IMT137	Drawing Basics	3		
IMT223	Digital Video Recording and Editing	3	ITD100 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
	Select one (1) Social Science Elective from the list below. <sup>1</sup>	3	Check for prerequisites	
	Total	33		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based upon SSC placement score

121

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

## **3D MOTION GRAPHICS TECHNOLOGY**

5300

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
IMT121	Interactive Media	3	
IMT122	Graphic Arts Design	3	ITD100 or Proficiency
IMT136	Principles of Animation	3	
IMT137	Drawing Basics	<u>3</u>	
		13	
Second Semester			
ITD123	MAC Concepts	1	
IMT125	3D Graphics Modeling	3	
IMT223	Digital Video Recording and Editing	3	ITD100 or Proficiency
MTH108	Explorations in Modern Mathematics^	<u>3</u>	MTH022 or MTH023 or Proficiency
ENG124	College Composition^	<u>3</u>	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
		13	
Summer Semester			
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		6	
Third Semester			
IMT227	3D Graphics Animation ▲-	3	IMT136 and IMT125
IMT237	Compositing	3	IMT223
IMT240	Advanced 3D Graphics Modeling ▲-	3	IMT125
IMT268	Advanced Video Editing	3	IMT223
IMT249	Textures for 2D and 3D Design ▲-	<u>3</u>	ITD122 and IMT125
		15	
Fourth Semester			
BIO126	Science, Energy, and the Environment (lab)	4	
IMT243	Advanced Compositing ▲+	3	IMT237
IMT245	Graphic Arts Design II	3	IMT122
IMT265	Motion Graphics Portfolio	3	IMT268
Social Science Elec	ctive <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
	TOTAL CREDITS	63	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.



# ASSOCIATE OF APPLIED SCIENCE

## **COMPUTER ENGINEERING**

2021 Catalog

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
CPD123	Structured Query Language ▲	3	CPD121	
CSE233	C++ Programming ▲	3	CSE122	
CSE231	Java Programming ▲	3	CSE122	
CSE236	Analyzing Software Requirements and Developing Solutions ▲	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123	
CSE232	Advanced Java Programming ▲	3	CSE231	
EET120	DC Circuit Analysis	4	pre-co-MTH125 <b>or</b> pre-co-MTH135	
EET122	AC Circuit Analysis	4	(pre-co-MTH130 or pre-co- MTH135) and EET120	
EET227	PLC's and Industrial Controls I	3	EST230 or EET120	
NET120	PC Upgrading and Maintenance ▲	3		
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM122	Interpersonal Communication	3	None	
or	or	or	or	
COM123	Small Group Communication	3	IDS102 or Proficiency	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
MTH223	Analytical Geometry and Calculus I^*	4	MTH135	
PHY121	College Physics I with Algebra (lab)	4	MTH135 or (MTH125 and MTH130) or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	64		

<sup>^</sup>Based on SSC placement score

123

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>\*</sup> Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for Precalculus.

### **COMPUTER ENGINEERING**

5350

#### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester	Course Title	Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
NET120	PC Upgrading and Maintenance ▲	3	J
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)
COM121	Effective Speaking	3	None
or	or	or	or
COM122	Interpersonal Communication	3	None
or	or	or	or
COM123	Small Group Communication	3	IDS102 or Proficiency
ENG124	College Composition <sup>^</sup>	<u>3</u>	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
		13	
Second Semester			
EET120	DC Circuit Analysis	4	pre-co-MTH125 or
) (TY 1105	•		pre-co-MTH135
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
CSE231	Java Programming ▲	3	CSE122
CSE233	C++ Programming ▲	<u>3</u>	CSE122
		15	
Summer Semester			
EET122	AC Circuit Analysis	4	(pre-co-MTH130 <b>or</b> pre-co-MTH135) <b>and</b> EET120
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
Arts & Humanities I	Elective <sup>1</sup>	3	Check for prerequisites
Social Science Elect	tive <sup>2</sup>	<u>3</u>	Check for prerequisites
		13	
Third Semester			
CPD123	Structured Query Language ▲	3	CPD121
EET227	PLC's and Industrial Controls I	3	EST230 or EET120
ENG221	Technical Report Writing	3	ENG124
CSE232	Advanced Java Programming ▲	<u>3</u>	CSE231
Fourth Semester		12	
CSE236	Analyzing Software Requirements and	3	(CIS221 or CSE229 or CSE233 or CSE231
CSE250	Developing Solutions ▲	3	or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) and CPD123
MTH223	Analytical Geometry and Calculus I^*	4	MTH135
PHY121	College Physics I with Algebra (lab)	<u>4</u>	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency
		11	•
	TOTAL CREDITS	64	
ased on SSC placement sco	re		

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>\*</sup> Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for Precalculus.



# MY ACADEMIC PLAN

### ASSOCIATE OF APPLIED SCIENCE

# COMPUTER NETWORK ADMINISTRATION & SECURITY TECHNOLOGY

5400

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD123	Structured Query Language ▲	3	CPD121	
NET137	Routing and Switching Essentials ▲	3	NET121	
NET220	UNIX/LINUX Operating Environment^▲	3	NET120 and NET121	
NET244	Microsoft Networking I▲	3	NET120 and NET121	
NET245	Microsoft Networking II ▲	3	NET244	
NET246	Microsoft Networking III▲	3	NET244	
NET253	Securing Networks with Switches and Routers ▲	3	NET137	
NET256	Scaling Networks▲	3	NET137	
NET264	UNIX/LINUX System Administration ▲	3	NET220	
NET281	Firewall and Network Security ▲	3	NET137	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
COM121	Effective Speaking	3		
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH125	College Algebra^	4	Pre-co-MTH025 <b>or</b> MTH023 <b>or</b> Proficiency	
NET120	PC Upgrading and Maintenance ▲	3		
NET121	Introduction to Computer Networking ▲	3		
NET131	Microsoft Client Operating System ▲	3	NET120 and NET121	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Select one (1) Social Science Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	62		

<sup>^</sup>Based on SSC placement score

125

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Elective: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

# COMPUTER NETWORK ADMINISTRATION & SECURITY TECHNOLOGY

5400

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
CCELAA		2	Proficiency
CSE122	Programming Logic and Problem Solving <sup>^</sup>	3	(IDS102 or Proficiency) and
NET120	DC Haradia and Maintenana A	2	(ITD100 or Proficiency)
NET120	PC Upgrading and Maintenance ▲	3	
NET121	Introduction to Computer Networking ▲	3 13	
Second Semester		13	
Second Semester			Pre-co-MTH025 or MTH023
MTH125	College Algebra^	4	or Proficiency
NET131	Microsoft Client Operating System ▲	3	NET120 and NET121
NET137	Routing and Switching Essentials ▲	3	NET121
NET220	UNIX/LINUX Operating Environment^▲	3	NET120 and NET121
NET244	Microsoft Networking I▲	<u>3</u>	NET120 and NET121
		16	
Third Semester			
CPD121	Data Modeling and Database Design	3	(IDS102 or Proficiency) and
	c c		(ITD100 or Proficiency)
COM121	Effective Speaking	<u>3</u>	
		6	
Fourth Semester			
NET253	Securing Networks with Switches and	3	NET137
NE1233	Routers ▲	3	NET 137
NET245	Microsoft Networking II ▲	3	NET244
CPD123	Structured Query Language ▲	3	CPD121
Arts & Humanities	s Elective <sup>1</sup>	<u>3</u> 12	
		12	
Fifth Semester			
NET246	Microsoft Networking III ▲	3	NET244
NET264	UNIX/LINUX System Administration ▲	3	NET220
NET256	Scaling Networks ▲	3	NET137
NET281	Firewall and Network Security ▲	3	NET137
Social Science Ele	ctive²	<u>3</u>	Check for prerequisites
	TOTAL OPERATO	15	
	TOTAL CREDITS	62	

<sup>^</sup>Based on SSC placement score

126

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Social Science Elective: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

# Stark State

# WACADEMIC PAA

### ASSOCIATE OF APPLIED SCIENCE

# CYBER SECURITY AND COMPUTER FORENSICS TECHNOLOGY

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

5450

2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CFS136	Principles of Information Security▲	3		
CFS137	Computer Crime and Investigation▲	3	NET120	
CFS256	Disaster Recovery and Incident Planning▲	3		
CFS257	File Systems Analysis▲	3	CFS137	
CFS258	Cyber Forensics and Data Recovery▲	3	CFS257	
CFS275	Ethical Hacking	3	NET120 and NET220	
CFS280	Digital Media Forensics▲	3	CFS137	
CFS287	Network Forensics▲	3	CFS137 and NET121 and NET220	
NET120	PC Upgrading and Maintenance▲	3		
NET121	Introduction to Computer Networking▲	3		
NET220	UNIX/LINUX Operating Environment^▲	3	NET120 and NET121	
	Total	33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC235	Forensic Accounting	3		
CFS129	Cryptography▲	3		
CFS140	Biometric Applications▲	3		
CFS175	White Collar Crime▲	3		
CHM105	Introduction to Forensic Science	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125	College Algebra^	4	Pre-co-MTH025 <b>or</b> MTH023 <b>or</b> Proficiency	
SOC225	Cultural Diversity	3		
	Total	32		
	TOTAL CREDIT HOURS	65		

<sup>^</sup>Based upon SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

### 2021 Catalog

Effective Summer 2020

# CYBER SECURITY AND COMPUTER FORENSICS TECHNOLOGY

5450

### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CFS136	Principles of Information Security▲	3	
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
NET120	PC Upgrading and Maintenance▲	3	
NET121	Introduction to Computer Networking▲	<u>3</u>	
		16	
Second Semester			
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
CFS137	Computer Crime and Investigation▲	3	NET120
CFS140	Biometric Applications▲	3	
NET220	UNIX/LINUX Operating Environment <sup>^</sup> ▲	3	NET120 and NET121
CFS175	White Collar Crime▲	<u>3</u>	
		15	
Third Semester			
CFS129	Cryptography▲	3	
SOC225	Cultural Diversity	<u>3</u>	
		6	
Fourth Semester		_	
CHM105	Introduction to Forensic Science	3	D MELLOSS MELLOSS
MTH125	College Algebra^	4	Pre-co-MTH025 <b>or</b> MTH023 <b>or</b> Proficiency
CFS257	File Systems Analysis▲	3	CFS137
CFS275	Ethical Hacking▲	<u>3</u>	NET120 and NET220
		13	
<u>Fifth Semester</u>		_	
ACC235	Forensic Accounting	3	
CFS280	Digital Media Forensics▲	3	CFS137
CFS256	Disaster Recovery and Incident Planning▲	3	
CFS258	Cyber Forensics and Data Recovery▲	3	CFS257
CFS287	Network Forensics▲	<u>3</u>	CFS137 and NET121 and NET220
		15	
	TOTAL CREDITS	65	

<sup>^</sup>Based upon SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



## MUSIC PRODUCTION AND ENGINEERING

ASSOCIATE OF APPLIED SCIENCE

2021 Catalog

Effective Summer 2020

**5460** 



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT129	Digital Audio Recording and Editing	3		
IMT134	Technical Musicianship	3	IMT135	
IMT135	Music Theory and Composition I ▲ -	3		
IMT239	Music Synthesis I ▲ -	3	IMT129 and IMT247	
IMT246	Applied Music Technology ▲ -	3	IMT250	
IMT247	Music Theory and Composition II ▲+	3	IMT135	
IMT250	Music Technology ▲+	3	IMT129	
IMT259	Music Synthesis II ▲+	3	IMT239	
IMT260	Live Sound ▲ -	3	IMT129	
IMT261	Advanced Music Technology ▲+	3	IMT239 and IMT246	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO126	Science, Energy, and the Environment (lab)	4		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
IMT121	Interactive Media	3		
IMT223	Digital Video Recording and Editing	3	ITD100 or Proficiency	
IMT230	Webcasting and Music Publishing ▲+	3	IMT129	
IMT266	Film Theory and Practice	3	IMT121	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ITD123	MAC Concepts	1		
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
	Select one (1) Social Science Elective from the list below <sup>I</sup>	3	Check for prerequisites	
	Total	33		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based on SSC placement score

129

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

### MUSIC PRODUCTION AND ENGINEERING

5460

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101 IMT121	Student Success Seminar^^ Interactive Media	1 3	Take first semester
IMT121 IMT129	Digital Audio Recording and Editing	3	
IMT129 IMT135	Music Theory and Composition I ▲ -	3	
ITD122	Computer Applications for Professionals^	3	ITD100 <b>or</b> Proficiency
ITD123	MAC Concepts	<u>1</u>	11D100 of 11onelency
112123	Mile concepts	14	
Second Semester			
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011
			or Proficiency
IMT134	Technical Musicianship	3	IMT135
IMT223	Digital Video Recording and Editing	3	ITD100 or Proficiency
IMT247	Music Theory and Composition II ▲+	3	IMT135
IMT250	Music Technology ▲+	3 15	IMT129
C	_	15	
Summer Semeste COM121	<u>r</u> Effective Speaking	3	
BIO126	Science, Energy, and the Environment (lab)		
DIO120	Science, Energy, and the Environment (140)	$\frac{4}{7}$	
Third Semester		,	
IMT239	Music Synthesis I ▲ -	3	IMT129 and IMT247
IMT246	Applied Music Technology ▲ -	3	IMT250
IMT260	Live Sound ▲ -	3	IMT129
Social Science El	ective <sup>1</sup>	3	Check for prerequisites
MTH108	Explorations in Modern Mathematics^	<u>3</u>	MTH022 or MTH023
			or Proficiency
		15	
Fourth Semester	W.1 1M ' D 11'1' A	2	D 4TE 120
IMT230	Webcasting and Music Publishing ▲+	3	IMT129
IMT259	Music Synthesis II ▲+	3	IMT239
IMT261	Advanced Music Technology ▲+	3	IMT239 and IMT246
IMT266	Film Theory and Practice	<u>3</u>	IMT121
	TOTAL CREDITS	12 63	
	TOTAL CREDITS	03	

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Social Science Electives: PSC121, PSY121, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.



## MAP

# ASSOCIATE OF APPLIED SCIENCE COMPUTER GRAPHIC ARTS

2021 Catalog

Effective Summer 2020

**5500** 

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
IMT125	3D Graphics Modeling	3		
IMT132	Digital Photography/Graphic and Media	3		
IMT141	Typography Fundamentals	3		
IMT244	Digital Page Layout and Design	3	IMT122 and IMT131 and IMT141	
IMT245	Graphic Arts Design II	3	IMT122	
IMT253	Graphics for Illustration	3	IMT122	
IMT254	Portfolio Development	3	IMT244 and IMT245 and IMT253	
IMT255	Advanced Illustration	3	IMT253	
WDD121	Internet Design and Development^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO126	Science, Energy, and the Environment (lab)	4		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
IMT121	Interactive Media	3		
IMT131	Color Theory and Design	3		
IMT137	Drawing Basics	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ITD123	MAC Concepts	1		
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
SOC225	Cultural Diversity	3		
	Total	33		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

#### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
IMT122	Graphic Arts Design	3	ITD100 or Proficiency
IMT131	Color Theory and Design	3	
IMT141	Typography Fundamentals	3	
ITD123	MAC Concepts	<u>1</u>	
		14	
Second Semester			
IMT132	Digital Photography/Graphic and Media	3	
IMT137	Drawing Basics	3	
IMT245	Graphic Arts Design II	3	IMT122
IMT244	Digital Page Layout and Design	3	IMT122 and IMT131 and IMT141
IMT253	Graphics for Illustration	<u>3</u>	IMT122
		15	
Summer Semester			
COM121	Effective Speaking	3	
MTH108	Explorations in Modern Mathematics^	<u>3</u>	MTH022 <b>or</b> MTH023 <b>or</b> Proficiency
		6	
Third Semester			
BIO126	Science, Energy, and the Environment (lab)	4	
IMT121	Interactive Media	3	
IMT125	3D Graphics Modeling	3	
IMT255	Advanced Illustration	3	IMT253
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
T 10		16	
Fourth Semester	T	2	M0100 D C :
ENT120	Entrepreneurship <sup>^</sup>	3	IDS102 or Proficiency
IMT254	Portfolio Development	3	IMT244 and IMT245 and IMT253
SOC225	Cultural Diversity	3	(IDG101 D 5 :
WDD121	Internet Design and Development <sup>^</sup>	<u>3</u>	(IDS101 or Proficiency) and (ITD100 or Proficiency)
	TOTAL CONTOURS	12	
	TOTAL CREDITS	63	

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester





### ASSOCIATE OF APPLIED SCIENCE

# COMPUTER GRAPHIC ARTS - DIGITAL PHOTOGRAPHY MAJOR

Effective Summer 2020

2021 Catalog

**5501** 

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DPH280	Photography Portfolio ▲+	3	IMT263	
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
IMT132	Digital Photography/Graphic and Media	3		
IMT244	Digital Page Layout and Design	3	IMT122 and IMT131 and IMT141	
IMT245	Graphic Arts Design II	3	IMT122	
IMT253	Graphics for Illustration	3	IMT122	
IMT256	Digital Imaging ▲+	3	IMT122 and IMT132	
IMT262	Advanced Digital Photography ▲ -	3	IMT132	
IMT263	Photographic Lighting ▲+	3	IMT132	
IMT264	Image Management ▲+	3	IMT132	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO126	Science, Energy, and the Environment (lab)	4		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
IMT121	Interactive Media	3		
IMT131	Color Theory and Design	3		
IMT141	Typography Fundamentals	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ITD123	MAC Concepts	1		
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
SOC225	Cultural Diversity	3		
	Total	33		
	TOTAL CREDIT HOURS	63		

133

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

 $<sup>\</sup>blacktriangle$ + Spring only courses. Please see your academic advisor for availability.

# COMPUTER GRAPHIC ARTS - DIGITAL PHOTOGRAPHY MAJOR

5501

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

<u>First Semester</u> SSC101	Student Success Seminar^^	Credit Hours	Pre- and Co-requisites  Take first semester
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
IMT122	Graphic Arts Design	3	ITD100 or Proficiency
IMT132	Digital Photography/Graphic & Media	3	•
IMT141	Typography Fundamentals	3	
ITD123	MAC Concepts	<u>1</u>	
		14	
Second Semester		2	
IMT121	Interactive Media	3	DAT122
IMT264	Image Management $\triangle$ +	3	IMT132
IMT131	Color Theory and Design Graphic Arts Design II	3	IMT122
IMT245 IMT263	Photographic Lighting ▲+	3 <u>3</u>	IMT122 IMT132
1101 1 203	Filotographic Lighting $\blacksquare$ +	<u>3</u> 15	11111132
Summer Semester		13	
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
	Tr	<u>3</u>	
Third Semester			
BIO126	Science, Energy, and the Environment (lab)	4	
MTH108	Explorations in Modern Mathematics^	3	MTH022 <b>or</b> MTH023
	•		or Proficiency
IMT253	Graphics for Illustration	3	IMT122
IMT262	Advanced Digital Photography ▲ -	<u>3</u>	IMT132
T 10		13	
Fourth Semester	Discourse of the second	2	D (TD) (2)
DPH280	Photography Portfolio ▲+	3	IMT263
ENT120	Entrepreneurship^ Digital Imaging <b>A</b> +	3 3	IDS102 or Proficiency
IMT256	Digital Imaging •+	3	IMT122 <b>and</b> IMT132 IMT122 <b>and</b> IMT131
IMT244	Digital Page Layout and Design	3	and IMT141
SOC225	Cultural Diversity	<u>3</u>	and IVII 141
500225	Cartain Divolsity	15	
	TOTAL CREDITS	63	

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲ +</sup> Spring only courses. Please see your academic advisor for availability.



## MAP

# ASSOCIATE OF APPLIED SCIENCE DIGITAL VIDEO MEDIA TECHNOLOGY

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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2021 Catalog

Effective Summer 2020

Business and Information Technology Division

Digital Media and Administrative Technologies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT125	3D Graphics Modeling	3		
IMT129	Digital Audio Recording and Editing	3		
IMT223	Digital Video Recording and Editing	3	ITD100 or Proficiency	
IMT237	Compositing	3	IMT223	
IMT238	Advanced Video Production ▲+	3	IMT242	
IMT242	Lighting and Cinematography ▲-	3	IMT223	
IMT243	Advanced Compositing ▲+	3	IMT237	
IMT265	Motion Graphics Portfolio	3	IMT268	
IMT266	Film Theory and Practice	3	IMT121	
IMT268	Advanced Video Editing	3	IMT223	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO126	Science, Energy, and the Environment (lab)	4		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
IMT121	Interactive Media	3		
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
IMT132	Digital Photography/Graphic and Media	3		
IMT137	Drawing Basics	3		
ITD123	MAC Concepts	1		
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	33		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

### DIGITAL VIDEO MEDIA TECHNOLOGY

5550

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

<u>First Semester</u> SSC101	Student Success Seminar^^	Credit Hours	Pre- and Co-requisites  Take first semester
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
IMT121	Interactive Media	3	•
IMT122	Graphic Arts Design	3	ITD100 or Proficiency
IMT137	Drawing Basics	<u>3</u>	•
	-	13	
Second Semester			
IMT129	Digital Audio Recording and Editing	3	
IMT132	Digital Photography/Graphic and Media	3	
IMT223	Digital Video Recording and Editing	3	ITD100 or Proficiency
IMT266	Film Theory and Practice	3	IMT121
ITD123	MAC Concepts	<u>1</u>	
		13	
Summer Semester			
COM121	Effective Speaking	3	
MTH108	Explorations in Modern Mathematics^	<u>3</u>	MTH022 or MTH023 or Proficiency
BIO126	Science, Energy, and the Environment (lab)	<u>4</u>	
		10	
Third Semester			
ENT120	Entrepreneurship <sup>^</sup>	3	IDS102 or Proficiency
IMT125	3D Graphics Modeling	3	
IMT237	Compositing	3	IMT223
IMT242	Lighting and Cinematography ▲ -	3	IMT223
IMT268	Advanced Video Editing	3 <u>3</u>	IMT223
		15	
Fourth Semester			
IMT238	Advanced Video Production ▲+	3	IMT242
IMT243	Advanced Compositing ▲+	3	IMT237
IMT265	Motion Graphics Portfolio	3	IMT268
Arts & Humanities E	Elective <sup>1</sup>	3 12	Check for prerequisites
	TOTAL CREDITS	63	

<sup>^</sup>Based on SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.



### **CAREER ENHANCEMENT CERTIFICATE**

# MANAGEMENT INFORMATION SYSTEMS - HELP DESK AND COMPUTER USER SUPPORT

**2021 Catalog**Effective Summer 2020

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Business and Information Technology Division

Computer Science and Information Systems Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CIS121	Help Desk and Computer Support Concepts^▲	3	IDS102 or Proficiency	
NET120	PC Upgrading and Maintenance▲	3		
NET121	Introduction to Computer Networking▲	3		
NET131	Microsoft Client Operating System▲	3	NET120 and NET121	
NET244	Microsoft Networking I▲	3	NET120 and NET121	
	TOTAL CREDIT HOURS	15		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
CIS121	Help Desk and Computer Support Concepts^▲	3	IDS102 or Proficiency
NET120	PC Upgrading and Maintenance▲	3	
NET121	Introduction to Computer Networking▲	<u>3</u>	
		9	
Second Semester			
NET131	Microsoft Client Operating System▲	3	NET120 and NET121
NET244	Microsoft Networking I▲	<u>3</u>	NET120 and NET121
		6	
	TOTAL CREDITS	15	

137

<sup>^</sup> Based upon SSC placement score

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.





### CAREER ENHANCEMENT CERTIFICATE

# COMPUTER PROGRAMMING AND DATABASE - MICROSOFT SQL SERVER

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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Business and Information Technology Division

Computer Science and Information Systems Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CPD123	Structured Query Language▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database ▲	3	CPD123	
	TOTAL CREDIT HOURS	9		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
CPD121	Data Modeling and Database Design^	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		3	
Second Semester			
CPD123	Structured Query Language▲	<u>3</u>	CPD121
		3	
Third Semester			
CPD224	Advanced Microsoft SQL Server Database ▲	<u>3</u>	CPD123
		3	
	TOTAL CREDITS	9	

138

<sup>^</sup>Based upon SSC placement score

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



# MY ACADEMIC PLAN

### CAREER ENHANCEMENT CERTIFICATE

# COMPUTER SCIENCE AND ENGINEERING C++ PROGRAMMING

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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Business and Information Technology Division

Computer Science and Information Systems Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE233	C++ Programming ▲	3	CSE122	
CSE234	Advanced C++ Programming ▲	3	CSE233	
	TOTAL CREDIT HOURS	9		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
CSE122	Programming Logic and Problem Solving^	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		3	
Second Semester			
CSE233	C++ Programming ▲	<u>3</u>	CSE122
		3	
Third Semester			
CSE234	Advanced C++ Programming ▲	<u>3</u>	CSE233
		3	
	TOTAL CREDITS	9	

139

<sup>^</sup>Based upon SSC placement score

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



# CAREER ENHANCEMENT CERTIFICATE VIDEO GAME DESIGN

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Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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Business and Information Technology Division

Computer Science and Information Systems Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
SGE121	Game Design^	3	IDS102 or Proficiency	
SGE223	2D Game Design and Development ▲	3	CSE122 and SGE121	
SGE224	Game Programming I▲	3	CSE122	
	TOTAL CREDIT HOURS	12		

### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
SGE121	Game Design^	<u>3</u>	IDS102 or Proficiency
		6	
Second Semester			
SGE224	Game Programming I▲	3	CSE122
SGE223	2D Game Design and Development ▲	<u>3</u>	CSE122 and SGE121
		6	
	TOTAL CREDITS	12	

<sup>^</sup>Based upon SSC placement score

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



## **WAI**

### CAREER ENHANCEMENT CERTIFICATE

# COMPUTER SCIENCE AND ENGINEERING JAVA PROGRAMMING

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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2021 Catalog

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Business and Information Technology Division

Computer Science and Information Systems Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE231	Java Programming ▲	3	CSE122	
CSE232	Advanced Java Programming ▲	3	CSE231	
	TOTAL CREDIT HOURS	9		

### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
CSE122	Programming Logic and Problem Solving^	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		3	
Second Semester			
CSE231	Java Programming ▲	<u>3</u>	CSE122
		3	
Third Semester			
CSE232	Advanced Java Programming ▲	<u>3</u>	CSE231
		3	
	TOTAL CREDITS	9	

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<sup>^</sup>Based upon SSC placement score

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.



# CAREER ENHANCEMENT CERTIFICATE COMPUTER SCIENCE

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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Business and Information Technology Division

Computer Science and Information Systems Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE231	Java Programming ▲	3	CSE122	
CSE233	C++ Programming ▲	3	CSE122	
	TOTAL CREDIT HOURS	9		

### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
CSE122	Programming Logic and Problem Solving^	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		3	(
Second Semester			
CSE231	Java Programming ▲	3	CSE122
CSE233	C++ Programming ▲	<u>3</u>	CSE122
		6	
	TOTAL CREDITS	9	

<sup>^</sup>Based upon SSC placement score

<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.





### CAREER ENHANCEMENT CERTIFICATE

# COMMERCIAL MUSIC TECHNOLOGY - MUSIC PRODUCTION

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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Effective Summer 2020

Business and Information Technology Division

Digital Media and Administrative Technologies Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT121	Interactive Media	3		
IMT129	Digital Audio Recording and Editing	3		
IMT135	Music Theory and Composition I▲-	3		
IMT247	Music Theory and Composition II ▲+	3	IMT135	
IMT250	Music Technology ▲+	3	IMT129	
	TOTAL CREDIT HOURS	15		

### STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
IMT121	Interactive Media	3	
IMT135	Music Theory and Composition I ▲-	3	
IMT129	Digital Audio Recording and Editing	<u>3</u>	
		9	
Second Semester			
IMT247	Music Theory and Composition II ▲+	3	IMT135
IMT250	Music Technology ▲+	<u>3</u>	IMT129
		6	
	TOTAL CREDITS	15	

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- ▲- Fall only courses. Please see your academic advisor for availability.
- ▲+ Spring only courses. Please see your academic advisor for availability.



# CAREER ENHANCEMENT CERTIFICATE GRAPHIC DESIGN

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WACADENIC PLAN

Business and Information Technology Division

Digital Media and Administrative Technologies Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
IMT131	Color Theory and Design	3		
IMT137	Drawing Basics	3		
IMT253	Graphics for Illustration	3	IMT122	
	TOTAL CREDIT HOURS	12		

### STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
IMT122	Graphic Arts Design	3	ITD100 or Proficiency
IMT131	Color Theory and Design	<u>3</u>	
		6	
Second Semester			
IMT137	Drawing Basics	3	
IMT253	Graphics for Illustration	<u>3</u>	IMT122
		6	
	TOTAL CREDITS	12	

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### CAREER ENHANCEMENT CERTIFICATE DIGITAL PHOTOGRAPHY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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WACADEMIC PLAN

Business and Information Technology Division

Digital Media and Administrative Technologies Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
IMT131	Color Theory and Design	3		
IMT132	Digital Photography	3		
IMT256	Digital Imaging ▲+	3	IMT122 and IMT132	
	TOTAL CREDIT HOURS	12		

### STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
IMT122	Graphic Arts Design	3	ITD100 or Proficiency
IMT132	Digital Photography	<u>3</u>	
		6	
Second Semester			
IMT131	Color Theory and Design	3	
IMT256	Digital Imaging ▲+	<u>3</u>	IMT122 and IMT132
		6	
	TOTAL CREDITS	12	

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<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.





### **CAREER ENHANCEMENT CERTIFICATE**

### GEOGRAPHIC INFORMATION SYSTEMS GEOSPATIAL TECHNOLOGY PROFESSIONAL

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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Business and Information Technology Division

Computer Science and Information Systems Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
GIS123	Maps and Map Reading ▲	3		
GIS231	Geographic Information Systems ▲	3	GIS123 or ENV223	
GIS233	Advanced Tools in Geospatial Technologies ▲	3	GIS231	
GIS234	Geospatial Technologies in Industry ▲	3	GIS233	
	TOTAL CREDIT HOURS	12		

### STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
GIS123	Maps and Map Reading ▲	<u>3</u>	
		3	
Second Semester			
GIS231	Geographic Information Systems ▲	<u>3</u>	GIS123 or ENV223
		3	
Third Semester			
GIS233	Advanced Tools in Geospatial Technologies ▲	<u>3</u>	GIS231
		3	
Fourth Semester			
GIS234	Geospatial Technologies in Industry ▲	<u>3</u>	GIS233
		3	
	TOTAL CREDITS	12	

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<sup>▲</sup> Course offerings vary by semester. Please see your academic advisor for availability.

### **CULINARY**



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



# ASSOCIATE OF APPLIED BUSINESS BUSINESS MANAGEMENT – CULINARY ARTS

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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Business and Information Technology Division

Management and Marketing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CUL122	Food Fundamentals	3	pre-co-CUL119 and pre-co-CUL120	
CUL123	Fundamental Cooking – Preparation I	3	CUL122	
CUL124	Meat and Fish – Preparation II	3	CUL123	
CUL125	Culinary Nutrition/Menu Planning	3	CUL119 and CUL120	
CUL221	Baking and Pastry – Preparation III	3	CUL122 and ITD122	
CUL222	Advanced Cookery – Preparation IV	3	pre-co-CUL124	
CUL223	Catering, Beverage and Food Services	3	CUL122	
CUL225	Advanced Portfolio Management	3	CUL124 and CUL221	
CUL226	Pantry and Garde Manger	3	CUL122	
CUL230	Culinary Practicum	5	pre-co-CUL222	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ACC130	Business Law and Ethics	3		
BUS121	Business Administration^	3	IDS102 or Proficiency	
or	or	or	or	
ENT120	Entrepreneurship^	3	IDS102 <b>or</b> Proficiency	
CUL119	Culinary ServSafe	1		
CUL120	Sanitation and Safety	2		
CUL126	Food Purchasing – Inventory Control	3	CUL122 and ITD122	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency	
MGT121	Principles of Management	3	BUS121 or ENT120	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
PHL122	Ethics	3		
SOC225	Cultural Diversity	3		
	Total	31		
	TOTAL CREDIT HOURS	63		

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<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

### **BUSINESS MANAGEMENT - CULINARY ARTS**

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### FULL-TIME STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CUL119	Culinary ServSafe	1	
CUL120	Sanitation and Safety	2	
CUL122	Food Fundamentals	3	pre-co-CUL119 and pre-co-CUL120
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 or Proficiency
MTH108	Explorations in Modern Mathematics^	<u>3</u>	MTH022 or MTH023 or Proficiency
		16	
Second Semester			
CUL123	Fundamental Cooking – Preparation I	3	CUL122
CUL226	Pantry and Garde Manger	3	CUL122
CUL126	Food Purchasing – Inventory Control	3	CUL122 and ITD122
PHL122	Ethics	3	
BUS121	Business Administration	3	IDS102 or Proficiency
or	or	or	or
ENT120	Entrepreneurship^	<u>3</u>	IDS102 or Proficiency
TP1 : 1 C		15	
Third Semester		_	
CUL124	Meat and Fish – Preparation II	3	CUL123
CUL221	Baking and Pastry – Preparation III	3	CUL122 and ITD122
CUL125	Culinary Nutrition/Menu Planning	3	CUL119 and CUL120
MGT121	Principles of Management	3	BUS121 or ENT120
CUL223	Catering, Beverage and Food Services	<u>3</u>	CUL122
		15	
Fourth Semester			
ACC130	Business Law and Ethics	3	
CUL230	Culinary Practicum	5	pre-co-CUL222
CUL222	Advanced Cookery – Preparation IV	3	pre-co-CUL124
SOC225	Cultural Diversity	3	
CUL225	Advanced Portfolio Management	<u>3</u>	CUL124 and CUL221
		17	
	TOTAL CREDITS	63	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>■</sup>Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

### **EDUCATION**



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



### ASSOCIATE OF APPLIED SCIENCE EARLY CHILDHOOD EDUCATION

2021 Catalog

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

### Education and Social Sciences Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EDU123	Health, Safety, and Nutrition (5 O.H.)	2	EDU121, EDU130, <b>or</b> EDU131	
EDU124	Infant Toddler Curriculum++ (5 O.H.)	3	EDU131	
EDU131	Child Development^++ (10 O.H.)	3	ENG011 or Proficiency	
EDU132	Observation, Assessment, and Group Management^++ (10 O.H.)	3	ENG011 or Proficiency	
EDU221	Language Arts++ ▲- (5 O.H.)	3	EDU122 or EDU124	
EDU223	Community and Family-based Programs++ (5 O.H.)	3	EDU121 or EDU130	
EDU235	Inclusive Classrooms for Young Children ++ (5 O.H.)	3	EDU225	
EDU227	Early Childhood Education Practicum & Seminar++ (210 Hours)	3	(EDU124 or EDU232) and EDU132 and EDU221 and EDU235	
EARLY CHILDE	IOOD PATHWAY: Choose Infant/Toddler or Presci	hool		
Infant/T	oddler			
EDU127	Infant and Toddler Group Care++▲+ (5 O.H.)	3	EDU131	
EDU128	Responsive Infant and Toddler Environment++▲- (5 O.H.)	3	EDU131	
EDU129	Relationship Development for Infants and Toddlers++▲+ (5 O.H.)	3	Pre-Co-EDU127	
Preschoo	ol			
EDU122	Curriculum Design and Instruction++ ▲+ (10 O.H.)	3	EDU131	
EDU232	Literature Across the Curriculum++ ▲- (5 O.H.)	3	EDU122	
EDU126	Educational Technology	3		
or	or	or	EDIMAL EDIMA	
EDU224	Early Childhood Program Administration or	3	EDU121 <b>or</b> EDU130	
or EDU228	Phonics for Young Children	or 3	EDU221	
	Total	32	-	

<sup>^</sup>Based on SSC placement scores.

 $\Omega MTH124$  should only be taken by students planning to transfer to a four-year institution.

Note: O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

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### **EARLY CHILDHOOD EDUCATION**

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NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
SOC225	Cultural Diversity++	3		
PHL122	Ethics	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH108 <b>or</b> MTH124	Explorations in Modern Mathematics^ or Statistics^Ω	3 <b>or</b> 3	MTH022 or MTH023  or Proficiency  MTH022 or Pre-Co-MTH024	
M111124	Statistics 12	3	or Proficiency	
COM121	Effective Speaking	3		
EDU121	Introduction to Early Childhood Education^++ (30 O.H.)	3	ENG011 or Proficiency	
EDU225	The Exceptional Child++	3	EDU121, EDU130, <b>or</b> EDU131	
EDU229	Educational Psychology	3	EDU130 <b>or</b> EDU131	
	Select one (1) Natural Sciences (with lab) Electives from the list below <sup>1</sup>	4	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	64		

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

ΩMTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>1</sup>Natural Science elective: BIO126, BIO127, CHM100, GEO141, PHY105

Note: O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

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Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
EDU131	Child Development^++ (10 O.H.)	3	ENG011 or Proficiency
EDU132	Observation, Assessment, and Group Management^++	3	ENG011 or Proficiency
	(10 O.H.)		
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011
			or Proficiency MTH022 and MTH023
MTH108	Explorations in Modern Mathematics^	3	or Proficiency
or	or	or	MTH022 <b>or</b> Pre-Co-MTH024
MTH124	Statistics $^{\Omega}$	<u>3</u>	or Proficiency
PSY121	General Psychology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
	,	<del>1</del> 6	·
Second Semester			
EDU121	Introduction to Early Childhood Education^++ (30 O.H.)	3	ENG011 or Proficiency
EDU123	Health, Safety, and Nutrition (5 O.H.)	2	EDU121, EDU130, <b>or</b> EDU131
EDU124	Infant Toddler Curriculum++ (5 O.H.)	3	EDU131
EDU225	The Exceptional Child++	3	EDU121, EDU130, or EDU131
COM121	Effective Speaking	3	
Infant/Toddler or .	Preschool Pathway <sup>2</sup>	<u>3</u>	Check for prerequisites
		17	
Third Semester			
EDU221	Language Arts++ ▲- (5 O.H.)	3	EDU122 or EDU124
EDU223	Community and Family-based Programs++ (5 O.H.)	3	EDU121 <b>or</b> EDU130
SOC225	Cultural Diversity++	3	
EDU235	Inclusive Classrooms for Young Children++ (5 O.H.)	3	EDU225
Infant/Toddler or	Preschool Pathway <sup>2</sup>	<u>3</u>	Check for prerequisites
Esseth Comments		15	
Fourth Semester		2	(EDIMAA EDMAA) I
EDU227	Early Childhood Education Practicum & Seminar++ (210 Hours)	3	(EDU124 or EDU232) and EDU132 and EDU221 and
	(210 Hours)		EDU235
EDU229	Educational Psychology	3	EDU130 <b>or</b> EDU131
PHL122	Ethics	3	
Infant/Toddler or .	Preschool Pathway <sup>2</sup>	3	Check for prerequisites
Natural Sciences (		<u>4</u>	Check for prerequisites
		16	
	TOTAL CREDITS	64	

<sup>^</sup>Based on SSC placement scores.

 $\Omega$ MTH124 should only be taken by students planning to transfer to a four-year institution.

Note: O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

<sup>&</sup>lt;sup>1</sup>Natural Science elective: BIO126, BIO127, CHM100, GEO141, PHY105

<sup>&</sup>lt;sup>2</sup>Infant/Toddler Pathway: EDU127, EDU128, EDU129 Preschool Pathway: EDU122, EDU232, and (EDU126 or EDU22, or EDU228)

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.



# ASSOCIATE OF SCIENCE EDUCATION

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

Education and Social Sciences Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year				
FRESHMAN EXPE	FRESHMAN EXPERIENCE							
SSC101	Student Success Seminar^^	1	Take first semester					
COMPUTER APPI	LICATIONS							
EDU126	Educational Technology	3						
WRITTEN & ORA	L COMMUNICATION: 9 credit hours minimum							
ENG124	College Composition <sup>^</sup> (required)	3	Co-ENG024 or Co-ENG011 or Proficiency					
ENG231	College Composition II (required)	3	ENG124					
ENG221	Technical Report Writing	3	ENG124					
ENG230	Business Communication	3	ENG124					
COM121	Effective Speaking (required)	3						
COM122	Interpersonal Communication	3						
COM123	Small Group Communication	3	IDS102 or Proficiency					
COM125	Introduction to Communication Theory -	3	IDS102 or Proficiency					
COM126	Introduction to Mass Communication ▲+	3						
SOCIAL & BEHAV	VIORAL SCIENCES: 9 credit hours minimum	•						
PSC121	Political Science	3						
PSY121	General Psychology <sup>^</sup> (required)	3	IDS102 or Proficiency					
SOC121	Sociology^ (required)	3	IDS102 or Proficiency					
SOC225	Cultural Diversity (required)	3						
PSY123	Human Growth and Development	3	PSY121					
PSY124	Industrial/Organizational Psychology	3						
PSY221	Abnormal Psychology	3	PSY121					
SOC122	Society and Technology	3						
SOC123	Dynamics of the Family	3						
SOC221	Social Problems	3	SOC121					
BUS122	Basic Economics^	3	IDS102 or Proficiency					
BUS221	Microeconomics^	3	IDS102 or Proficiency					
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or Proficiency					
ARTS & HUMANI	TIES: 6 credit hours minimum	•						
ENG233	British Literature: Med to 1785	3	ENG124					
ENG234	British Lit: 1785 to Present	3	ENG124					
ENG236	American Literature: Colonial to 1865	3	ENG124					
ENG237	American Literature: 1865 to Present	3	ENG124					
HIS121	U.S. History I to 1877	3						
HIS122	U.S. History II from 1877	3						
HIS221	World Civilization to 17 <sup>th</sup> Century	3						
HIS222	World Civilization from 17th Century	3						
PHL122	Ethics	3						

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SCIENCES & MAT	HEMATICS			
Natural Sciences: 8	semester credit hours minimum (1 lab course r	equired)		
BIO121	Anatomy and Physiology I (lab) <sup>^</sup> ▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO126	Science, Energy, and the Environment (lab)	4		
BIO127	Human Biology (lab) (required)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM100	Exploring Science and Technology (lab)	4		
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM121	Gen., Org., and Bio Chemistry I (lab)^	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM122	Gen., Org., and Bio Chemistry II (lab)▲+	4	CHM121	
GEO141	Physical Geology (lab)	4		
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY105	Astronomy	4	Ţ,	
PHY121	College Physics I with Algebra (lab)	4	MTH135 or (MTH125 and MTH130) or Proficiency	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
Mathematics: 3-4 se	emester credit hours minimum			
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
MTH125	College Algebra^	4	MTH023 <b>or</b> Pre-Co-MTH025 <b>or</b> Proficiency	
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
MTH221	Concepts of Calculus^▲+	3	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
MTH223	Analytic Geometry and Calculus I <sup>^</sup>	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
EDUCATION: 9 cr		2	ENGOLL B. C.	
EDU130	Introduction to the Teaching Profession^++	3	ENG011 or Proficiency	
EDU225	Exceptional Child++ A+	3	EDU121, EDU130, <b>or</b> EDU131	
EDU229	Educational Psychology++	3	EDU130 or EDU131	
ADDITIONAL ELE	CTIVES TO COMPLETE DEGREE* TOTAL CREDIT HOURS	12-16 60-65	Check for prerequisites	

<sup>^</sup>Based on SSC placement scores.

<sup>++</sup>Minimum grade of "C" required.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>\*</sup>Based on teacher licensure area of concentration (see next page).

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

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Effective Summer 2020

### ASSOCIATE OF SCIENCE ELECTIVES

Students should select additional courses from the previous page, choose elective courses from the list below or receive approval from the department chair for other related electives. Please see your academic advisor or transfer institution for assistance with course selection.

ADDITIONAL EDUCATION, LIBERAL ARTS, MATH AND SCIENCE COURSES*			
Biology	Early Childhood Education and Intervention Specialist		
BIO101 Introduction to Anatomy and Physiology (3)	EDU121 Intro to Early Childhood Education (3)		
BIO123 Principles of Human Structure and Function (lab) (5)	EDU122 Curriculum Design and Instruction (3)▲+		
BIO124 Human Diseases (3)	EDU123 Health, Safety, and Nutrition (2)		
	EDU131 Child Development (3)		
Chemistry	EDU132 Observation, Assessment, and Group Management (3)		
CHM141 General Chemistry (lab) (5)	EDU221 Language Arts (3)▲-		
CHM142 General Chemistry (lab) (5)	EDU223 Community and Family-based Programs (3)		
	EDU224 Early Childhood Program Administration (3)		
Deaf Education	EDU227 Early Childhood Education Practicum and Seminar (3)		
ASL121 Introduction to the Deaf Culture and Community (3)	EDU228 Phonics for Young Children (3)▲+		
ASL122 American Sign Language I (4)	EDU232 Literature Across the Curriculum (3)▲-		
ASL123 Introduction to Interpreting (3)	EDU235 Inclusive Classrooms for Young Children (3)		
ASL124 American Sign Language II (4)			
ASL221 American Sign Language III (4)	English		
ASL222 ASL Practicum and Seminar (3)	ENG125 Technical Editing and Layout (3) ▲+		
	ENG227 Writing for Media (3)		
Foreign Language	ENG228 Writing for the Web (3)▲-		
SPN100 Elementary Spanish I (4)	ENG229 Grant Writing (3)		
SPN200 Elementary Spanish II (4)▲+	ENG235 Introduction to Shakespeare (3)▲+		
	ENG238 Introduction to Creative Writing (3) ▲+		
Social and Behavioral Sciences	ENG239 Film Appreciation (3)▲+		
PSC122 Introduction to Law and the Legal System (3)	ENG240 Women's Literature (3)▲-		
PSC221 State and Local Government (3)	ENG241 Major Modern Writers (3)▲+		
PSC222 Public Policy (3)			
SOC222 Juvenile Delinquency (3)	Experiential Learning		
	SSC201 Study Away: Experiential Learning (1)		

<sup>\*</sup>Based on teacher licensure area of concentration.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
COM121	Effective Speaking	3	
EDU130	Introduction to the Teaching Profession^++	3 16	ENG011 or Proficiency
		16	
Second Semester			
Mathematics Elec	tive <sup>3</sup>	3-4	Check for prerequisites
SOC225	Cultural Diversity	3	
ENG231	College Composition II	3	ENG124
EDU126	Educational Technology	3	
Additional Electiv	re*	<u>3</u>	Check for prerequisites
		15-16	
Third Semester			
Arts & Humanitie	s Elective <sup>1</sup>	3	Check for prerequisites
BIO127	Human Biology (lab)	4	
EDU229	Educational Psychology++	3	EDU130 <b>or</b> EDU131
Additional Electiv		3-5	Check for prerequisites
Additional Electiv	re*	<u>3</u>	Check for prerequisites
		16-18	
Fourth Semester			
Arts & Humanitie	s Elective <sup>1</sup>	3	Check for prerequisites
EDU225	Exceptional Child++▲+	3	EDU121, EDU130, <b>or</b> EDU131
Natural Sciences	Elective <b>^</b> 2	4	Check for prerequisites
Additional Electiv	<i>e</i> *	<u>3-5</u>	Check for prerequisites
		13-15	
	TOTAL CREDITS	60-65	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122.

<sup>&</sup>lt;sup>2</sup> <u>Natural Sciences Elective</u>: BIO121, BIO122, BIO126, BIO141, BIO142, BIO221, CHM100, CHM101, CHM121, CHM122, GEO141, PHY101, PHY105, PHY121, PHY122.

<sup>&</sup>lt;sup>3</sup>Mathematics Electives: MTH124, MTH125, MTH135, MTH221, MTH223

<sup>\*</sup>Additional Electives: Based on teacher licensure area of concentration. (See previous page for additional elective options.)

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.



### ONE-YEAR CERTIFICATE AMERICAN SIGN LANGUAGE

Effective Summer 2020

1075

2021 Catalog

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

Education and Social Sciences Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ASL121	Introduction to the Deaf Culture and Community++ (5 O.H.)	3		
ASL122	American Sign Language I++ (10 O.H.)	4		
ASL123	Introduction to Interpreting++ (5 O.H.)	3		
ASL124	American Sign Language II++ (10 O.H.)	4	ASL122	
ASL221	American Sign Language III++ (10 O.H.)	4	ASL124	
ASL222	American Sign Language Practicum/Seminar++ (210 Hours)	3	ASL123 and Pre-Co- ASL221	
	Total	21		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
		_	Take first semester	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG124 COM121	College Composition^ Effective Speaking		Co-ENG024 or Co-ENG011	
		3	Co-ENG024 or Co-ENG011	
COM121	Effective Speaking	3	Co-ENG024 or Co-ENG011 or Proficiency	
COM121 PSY121	Effective Speaking  General Psychology^	3 3 3	Co-ENG024 or Co-ENG011 or Proficiency	

<sup>^</sup>Based on SSC placement scores.

**Note:** O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

### 2021 Catalog

Effective Summer 2020

### ONE-YEAR CERTIFICATE AMERICAN SIGN LANGUAGE

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### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ASL121	Introduction to the Deaf Culture and Community++ (5 O.H.)	3	
ASL122	American Sign Language I++ (10 O.H.)	4	
COM121	Effective Speaking	<u>3</u>	
		11	
Second Semeste	<u>r</u>		
ASL124	American Sign Language II++ (10 O.H.)	4	ASL122
ASL123	Introduction to Interpreting++ (5 O.H.)	3	
ENG124	College Composition^	3	Co-ENG024 or Co-
	•		ENG011 or Proficiency
PSY121	General Psychology <sup>^</sup>	3 13	IDS102 or Proficiency
		13	
Third Semester			
ASL221	American Sign Language III++ (10 O.H.)	4	ASL124
ASL222	American Sign Language Practicum/Seminar++ (210 Hours)	3	ASL123 and Pre-Co-
			ASL221
SOC123	Dynamics of the Family	<u>3</u>	
		10	
	TOTAL CREDITS	34	

<sup>^</sup>Based on SSC placement scores.

**Note:** O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.



### CAREER ENHANCEMENT CERTIFICATE **INFANT TODDLER**

2021 Catalog Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

Education and Social Sciences Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EDU123	Health, Safety, and Nutrition (5 O.H.)	2	EDU121, EDU130, <b>or</b> EDU131	
EDU124	Infant Toddler Curriculum++ (5 O.H.)	3	EDU131	
EDU127	Infant and Toddler Group Care++▲+ (5 O.H.)	3	EDU131	
EDU128	Responsive Infant and Toddler Environment++ • - (5 O.H.)	3	EDU131	
EDU129	Relationship Development for Infants and Toddlers++ ▲+ (5 O.H.)	3	Pre-Co-EDU127	
EDU131	Child Development^++ (15 O.H.)	3	ENG011 or Proficiency	
	TOTAL CREDIT HOURS	17		

### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semes	<u>ter</u>	Credit Hours	Pre- and Co-requisites
EDU131	Child Development^++ (15 O.H.)	<u>3</u>	ENG011 or Proficiency
		3	
Second Sem	<u>nester</u>		
EDU128	Responsive Infant and Toddler Environment++ ▲ - (5 O.H.)	3	EDU131
EDU123	Health, Safety, and Nutrition (5 O.H.)	2	EDU121, EDU130, <b>or</b> EDU131
EDU124	Infant Toddler Curriculum++ (5 O.H.)	<u>3</u>	EDU131
		8	
Third Seme	<u>ster</u>		
EDU127	Infant and Toddler Group Care++ ▲+ (5 O.H.)	3	EDU131
EDU129	Relationship Development for Infants and Toddlers++▲+	<u>3</u>	Pre-Co-EDU127
	(5 O.H.)	6	
	TOTAL CREDITS	17	

<sup>^</sup>Based upon SSC placement scores.

Note: O.H. = Observation Hours required. Students must successfully complete all required observation hours and other course assignments in order to pass this course.

- ▲-Fall only courses. Please see your academic advisor for availability.
- ▲+Spring only courses. Please see your academic advisor for availability.

<sup>++</sup>Minimum grade of "C" required.



### CAREER ENHANCEMENT CERTIFICATE AMERICAN SIGN LANGUAGE

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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Arts and Sciences Division

Education and Social Sciences Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ASL121	Introduction to the Deaf Culture & Community++ (5 O.H.)	3		
ASL122	American Sign Language I++ (10 O.H.)	4		
ASL124	American Sign Language II++ (10 O.H.)	4	ASL122	
ASL221	American Sign Language III++ (10 O.H.)	4	ASL124	
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ASL121	Introduction to the Deaf Culture & Community++ (5 O.H.)	3	
ASL122	American Sign Language I++ (10 O.H.)	<u>4</u>	
		7	
Second Semester			
ASL124	American Sign Language II++ (10 O.H.)	<u>4</u>	ASL122
		4	
Third Semester			
ASL221	American Sign Language III++ (10 O.H.)	<u>4</u>	ASL 124
		4	
	TOTAL CREDITS	16	

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

**Note:** *O.H.* = *Observation Hours Required.* Students must successfully complete all required observation hours and other course assignments in order to pass the course.

The American Sign Language (ASL) Career Enhancement Certificate is designed to provide individuals with an opportunity to gain basic skills in American Sign Language as well as enhance their knowledge and understanding of the deaf culture.

Completion of the ASL Career Enhancement certificate does not prepare an individual to be an interpreter.

Each course requires the student to participate in prescribed observations related to the ASL curriculum. Test-out options or life experience credit for ASL courses are not available.

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<sup>++</sup>Minimum grade of "C" required.

# ENGINEERING TECHNOLOGIES, INDUSTRIAL, AUTOMATED MANUFACTURING AND AUTOMOTIVE TECHNOLOGIES



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



## ASSOCIATE OF APPLIED SCIENCE AUTOMOTIVE TECHNOLOGY

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technology Division

Automotive and Transportation Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT122	Automotive Systems and Engine Technology	4	AUT121	
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT221	Fuel and Emissions Management Systems	3	AUT125	
AUT222	Engine System Performance Diagnosis	3	AUT125	
AUT223	Advanced Automotive Electronics	3	AUT125	
AUT227	Computerized Vehicle Control	3	AUT125	
AUT233	Automotive Diagnostic Applications	2	AUT223	
AUT234	Alternative Fuels and Advanced Automotive Technologies	2	AUT223	
	See Technical Elective list page**	2-5	Check for prerequisites	
	Total	30-33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AUT121	Automotive Technical Skills	2		
AUT123	Engine Diagnosis and Major Service	4	AUT121	
AUT126	Automotive HVAC Systems	2	AUT121	
AUT225	Automotive Drivetrain 1	3	AUT121	
AUT226	Automotive Drivetrain 2	3	AUT121	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH107	Industrial Math^	3		
or MTH125	Or College Algebra	<b>or</b> 4	Check for prerequisites	
BUS122	College AlgebraΩ  Basic Economics^	3	IDS102 <b>or</b> Proficiency	
PHL122	Ethics	3	1D3102 of Fioriciality	
11112122	Total	30		
	TOTAL CREDIT HOURS	60-64		

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<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH125 College Algebra should be taken by students planning to transfer to a four-year university

<sup>\*\*</sup>See Technical Elective list page.

### **AUTOMOTIVE TECHNOLOGY**

2250

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
AUT121	Automotive Technical Skills	2	
AUT122	Automotive Systems and Engine Technology	4	AUT121
AUT123	Engine Diagnosis and Major Service	4	AUT121
PHL122	Ethics	<u>3</u>	
		14	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT126	Automotive HVAC Systems	2	AUT121
BUS122	Basic Economics^	3	IDS102 or Proficiency
ENG124	College Composition <sup>^</sup>	<u>3</u>	Co-ENG024 or Co-ENG011 or
			Proficiency
Third Compaton		16	
Third Semester	F	2	A L TT 125
AUT222	Engine Systems Performance Diagnosis	3	AUT125
AUT223	Advanced Automotive Electronics	3	AUT125
AUT225	Automotive Drivetrain 1	3	AUT121
AUT226	Automotive Drivetrain 2	3	AUT121
ENG221	Technical Report Writing	<u>3</u>	ENG124
E41- C4		15	
Fourth Semester	E dan l'Endad Management Contain	2	A I TT 125
AUT221	Fuel and Emissions Management Systems	3	AUT125
AUT227	Computerized Vehicle Control	3	AUT125
AUT233	Automotive Diagnostic Applications	2	AUT223
AUT234	Alternative Fuels and Advanced Automotive Technology	2	AUT223
MTH107	Industrial Math^	3	
or	or	or	Check for prerequisites
MTH125	College Algebra $\Omega$	4	
	See Technical Elective list page**	<u>2-5</u>	Check for prerequisites
		15-18	
	TOTAL CREDITS	60-64	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH125 College Algebra should be taken by students planning to transfer to a four-year university

<sup>\*\*</sup>See Technical Elective list page.

TECHNICAL ELECTIVES: Two (2) credit hours minimum				
Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT128	Automotive Diesel Engine Performance	2		
AUT130	Automotive Safety and Shops Standards	2		
AUT131	Automotive Detailing Business Practices	2		
AUT132	Automotive Exterior Detailing	3		
AUT133	Automotive Interior Detailing	2	AUT132	
AUT134	Automotive Under-Hood and Under-Car Detailing	2	AUT132	
AUT135	Advanced Automotive Detailing Techniques  Practical Automotive Detailing Applications	3 2	AUT132	
AUT136 AUT137	ASE Test Preparation	2	AUT132	
AUT138	Applied Automotive Principles	4		
AUT141	Steering, Suspension, and Braking Operations	2		
AUT142	Auto Electrical Systems Toyota	2		
AUT143	Automotive Ventilation and Air Conditioning for Light Vehicles	1		
AUT253	Computerized Engine Control Systems	2		
AUT171	Introduction to Honda PACT	1		
AUT172	Honda Engine Mechanical	2		
AUT173	Honda Steering and Suspension	1	AUT124	
AUT174	Honda Braking Systems	1	AUT124	
AUT175	Honda Electrical Systems	2	AUT125	
AUT176	Honda HVAC Systems	1	AUT125	
AUT277	Honda Computerized Engine	2	AUT223	
AUT271	Honda Fuel and Emissions System	1	AUT221	
AUT273	Honda Advanced Diagnostic Applications	1	AUT223	
AUT275	Honda Manual Transmissions	1	AUT225	
AUT276	Honda Automatic Transmissions	1	AUT226	
AUT181	Intro to CAT Lift Trucks	1	AUT121	
AUT182	CAT Operator Safety Training	1	AUT121	
AUT183	CAT Service Information System	1	AUT121	
AUT184	CAT Hydraulic Systems	1	AUT121	
AUT185	CAT Internal Combustion Engine	2	AUT121	
AUT186	CAT Masts and Lift Mechanisms	1	AUT121	
AUT187	CAT Electrical Systems	3	AUT121	
AUT188	CAT Steering Systems	1	AUT121	
AUT189	CAT Braking Systems	1	AUT121	
AUT281	CAT Differentials and Front Axles	1	AUT121	
AUT282	CAT Transmissions	2	AUT121	
AUT283	CAT Fuel Systems (LP, Gasoline)	2	AUT121	
AUT254	Automotive Aftermarket Vehicle Interior Modifications	3	AUT125	
AUT255	Automotive Aftermarket Vehicle Exterior Modifications	3	AUT125	
AUT256 AUT257	Automotive Aftermarket Vehicle Powertrain Modifications Automotive Aftermarket Vehicle Chassis Modifications	3	AUT123 AUT124	
AUT191		2	AU1124	
AUT191 AUT192	Automotive CO-OP 1 Automotive CO-OP 2	2		
AUT193	Automotive CO-OF 2  Automotive CO-OP 3	2		
AUT194	Automotive CO-OF 4	2		
AUT 224	Automotive Co-of 4  Automotive Diesel Systems	2	AUT 121	
AUT228	Auto Service Management	2	7101 121	
AUT230	Technical Project	2		
TOY101	Introduction to Toyota T-TEN	3		
TOY102	Toyota Electrical Systems I	5	TOY101	
TOY103	Toyota Steering, Suspension, and Handling	5	TOY102	
TOY104	Toyota Engine Diagnosis and Repair	5	TOY101	
TOY105	Toyota Engine Controls I	5	TOY104	
TOY106	Toyota Manual Transmissions and Drivetrains	5	TOY102	
TOY201	Toyota Electrical Systems II	5	TOY102	
TOY202	Toyota Automotive Braking Systems	5	TOY201	
TOY203	Toyota HVAC Systems	5	TOY201	
TOY204	Toyota Engine Controls II	5	TOY105	
TOY205	Toyota Automatic Transmissions	5	TOY204	



### ASSOCIATE OF APPLIED SCIENCE **GENERAL MOTORS ASEP PROGRAM**

2021 Catalog Effective Summer 2020

2251

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT122	Automotive Systems and Engine Technology	4	AUT121	
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT221	Fuel and Emissions Management Systems	3	AUT125	
AUT222	Engine System Performance Diagnosis	3	AUT125	
AUT223	Advanced Automotive Electronics	3	AUT125	
AUT227	Computerized Vehicle Control	3	AUT125	
AUT191	Automotive CO-OP 1	2		
AUT192	Automotive CO-OP 2	2		
AUT193	Automotive CO-OP 3	2		
AUT194	Automotive CO-OP 4	2		
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AUT121	Automotive Technical Skills	2		
AUT123	Engine Diagnosis and Major Service	4	AUT121	
AUT126	Automotive HVAC Systems	2	AUT121	
AUT225	Automotive Drivetrain 1	3	AUT121	
AUT226	Automotive Drivetrain 2	3	AUT121	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH107	Industrial Math^	3		
or	or	or	Check for prerequisites	
MTH125 BUS122	College AlgebraΩ  Basic Economics^	3	IDC102 or Proficionary	
PHL122	Ethics	3	IDS102 <b>or</b> Proficiency	
PHLIZZ		30		
	TOTAL CREDIT HOURS			
	TOTAL CREDIT HOURS	62-63		

166

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH 125 College Algebra should be taken by students planning to transfer to a four-year university.

Effective Summer 2020

### **GENERAL MOTORS ASEP PROGRAM**

2251

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
AUT121	Automotive Technical Skills	2	
AUT122	Automotive Systems and Engine Technology	4	AUT121
AUT191	Automotive CO-OP 1	2	
PHL122	Ethics	<u>3</u>	
		12	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT192	Automotive CO-OP 2	2	
BUS122	Basic Economics^	<u>3</u>	IDS102 or Proficiency
		13	
Summer Semester			
AUT123	Engine Diagnosis and Major Service	4	AUT121
AUT126	Automotive HVAC Systems	2	AUT121
ENG124	College Composition <sup>^</sup>	<u>3</u>	Co-ENG024 or Co-ENG011 or
ENG121	conege composition		Proficiency
		9	
Third Semester			
AUT221	Fuel and Emissions Management Systems	3	AUT125
AUT222	Engine Systems Performance Diagnosis	3	AUT125
AUT223	Advanced Automotive Electronics	3	AUT125
AUT193	Automotive CO-OP 3	2	
ENG221	Technical Report Writing	<u>3</u>	ENG124
<b>T</b> 4.6		14	
Fourth Semester		2	1777107
AUT227	Computerized Vehicle Control	3	AUT125
AUT225	Automotive Drivetrain 1	3	AUT121
AUT226	Automotive Drivetrain 2	3	AUT121
AUT194	Automotive CO-OP 4	2	
MTH107	Industrial Math^	3	
0r	or	or	Check for prerequisites
MTH125	College Algebra $\Omega$	4	
	TOTAL CREDITS	14	
	TOTAL CREDITS	62-3	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>+</sup>Minimum grade of "B" required

 $<sup>\</sup>Omega$  MTH 125 College Algebra should be taken by students planning to transfer to a four-year university.



### ONE-YEAR CERTIFICATE 1-YEAR AUTOMOTIVE TECHNOLOGY

2021 Catalog

Effective Summer 2020

2256

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Stark State College 1-Year Automotive Technology Certificate contains the core automotive courses that are in the automotive technology associate degree program and are structured to quickly prepare students for a productive career in the automotive service and repair industry.

In our two state-of-the-art automotive facilities, students use the latest tools and diagnostic equipment to apply practical service techniques to our fleet of late-model vehicles. This builds hands-on skills that can be applied immediately upon graduation.

The curriculum is accredited by the National Automotive Technicians Education Foundation (NATEF) preparing students to pursue Automotive Service Excellence (ASE) certification. Students successfully completing this course of study will receive a *1-Year Automotive Technology Certificate* from Stark State College.

Students desiring to obtain an associate's degree can choose to add the academic courses that are listed on the Automotive Technology Program (2250) advising sheet.

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AUT121	Automotive Technical Skills	2		
AUT122	Automotive Systems and Engine Technology	4	AUT121	
AUT123	Engine Diagnosis and Major Service	4	AUT121	
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT126	Automotive HVAC Systems	2	AUT121	
AUT221	Fuel and Emissions Management Systems	3	AUT125	
AUT222	Engine System Performance Diagnosis	3	AUT125	
AUT223	Advanced Automotive Electronics	3	AUT125	
AUT225	Automotive Drivetrain 1	3	AUT121	
AUT226	Automotive Drivetrain 2	3	AUT121	
AUT227	Computerized Vehicle Control	3	AUT125	
AUT233	Automotive Diagnostic Applications	2	AUT223	
	TOTAL CREDIT HOURS	41		

168

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Effective Summer 2020

### ONE-YEAR CERTIFICATE 1-YEAR AUTOMOTIVE TECHNOLOGY

2256

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
AUT121	Automotive Technical Skills	2	
AUT122	Automotive Systems and Engine Technology	4	AUT121
AUT123	Engine Diagnosis and Major Service	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	<u>4</u>	AUT121
		15	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT126	Automotive HVAC Systems	2	AUT121
AUT221	Fuel and Emissions Management Systems	3	AUT125
AUT223	Advanced Automotive Electronics	3	AUT125
AUT227	Computerized Vehicle Control	<u>3</u>	AUT125
		15	
Third Semester			
AUT222	Engine System Performance Diagnosis	3	AUT125
AUT225	Automotive Drivetrain 1	3	AUT121
AUT226	Automotive Drivetrain 2	3	AUT121
AUT233	Automotive Diagnostic Applications	<u>2</u>	AUT223
		11	
	TOTAL CREDITS	41	

<sup>^^</sup>To promote student success, this course should be taken in the first semester



### **ONE-YEAR CERTIFICATE**

### COMPREHENSIVE AUTOMOTIVE TECHNOLOGY CERTIFICATE

**2021 Catalog**Effective Summer 2020

2257

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Stark State College *Comprehensive Automotive Technology Certificate* contains the core automotive courses that are in the automotive technology associate degree program and are structured to prepare students for a productive career in the automotive service and repair industry.

In our two state-of-the-art automotive facilities, students use the latest tools and diagnostic equipment to apply practical service techniques to our fleet of late-model vehicles. This builds hands-on skills that can be applied immediately upon graduation.

The curriculum is accredited by the National Automotive Technicians Education Foundation (NATEF) preparing students to pursue Automotive Service Excellence (ASE) certification. Students successfully completing this course of study will receive a *Comprehensive Automotive Technology Certificate* from Stark State College.

Students desiring to obtain an associate's degree can choose to add the academic courses that are listed on the Automotive Technology Program (2250) advising sheet.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AUT121	Automotive Technical Skills	2		
AUT122	Automotive Systems and Engine Technology	4	AUT121	
AUT123	Engine Diagnosis and Major Service	4	AUT121	
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT126	Automotive HVAC Systems	2	AUT121	
AUT221	Fuel and Emissions Management Systems	3	AUT125	
AUT222	Engine System Performance Diagnosis	3	AUT125	
AUT223	Advanced Automotive Electronics	3	AUT125	
AUT225	Automotive Drivetrain I	3	AUT121	
AUT226	Automotive Drivetrain II	3	AUT121	
AUT227	Computerized Vehicle Control	3	AUT125	
AUT233	Automotive Diagnostic Applications	2	AUT223	
AUT234	Alternative Fuels and Advanced Automotive Technologies	2	AUT223	
	TOTAL CREDIT HOURS	43		

### 2021 Catalog

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### **ONE-YEAR CERTIFICATE**

### COMPREHENSIVE AUTOMOTIVE TECHNOLOGY CERTIFICATE

2257

### STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
AUT121	Automotive Technical Skills	2	
AUT122	Automotive Systems and Engine Technology	4	AUT121
AUT123	Engine Diagnosis and Major Service	<u>4</u>	AUT121
		11	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT126	Automotive HVAC Systems	<u>2</u>	AUT121
		10	
Third Semester			
AUT222	Engine System Performance Diagnosis	3	AUT125
AUT223	Advanced Automotive Electronics	3	AUT125
AUT225	Automotive Drivetrain I	3	AUT121
AUT226	Automotive Drivetrain II	<u>3</u>	AUT121
		12	
Fourth Semester			
AUT221	Fuel and Emissions Management Systems	3	AUT125
AUT227	Computerized Vehicle Control	3	AUT125
AUT233	Automotive Diagnostic Applications	2	AUT223
AUT234	Alternative Fuels and Advanced Automotive Technologies	<u>2</u>	AUT223
		10	
	TOTAL CREDITS	43	

171

<sup>^^</sup>To promote student success, this course should be taken in the first semester.



### ASSOCIATE OF APPLIED SCIENCE MECHANICAL ENGINEERING TECHNOLOGY

2021 Catalog Effective Summer 2020

4050

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DET121	Engineering Drawing	3		
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221	
MET221	Advanced Strength of Materials	2	MET124	
MET222	Fluid Power	4	MET124	
MET223	Dynamics	2	MET124	
MET225	Manufacturing Processes	3		
or AIT122	or Machine Tools	<b>or</b> 4		
MET226	Technical Project - Mechanical and Design	2	Pre-Co-MET228 and Pre-Co-DET125	
MET227	Thermodynamics and Heat Transfer	3	PHY121	
MET228	Machine Design	4	MET124	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
	Total	31-32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
DET125	Basic AutoCAD	3		
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125	
ENG124	College Composition^	3	Co-ENG024 or Co- ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MET123	Material Science	3		
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 or (MTH125 and MTH130) or Proficiency	
	Select one (1) Arts & Humanities Elective <sup>1</sup>	3	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	62-63		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester 

1 Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

		Cradit	
First Semester		<u>Credit</u> <u>Hours</u>	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
DET121	Engineering Drawing	3	
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
MET123	Material Science	3	
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		18	
Second Semester			
DET125	Basic AutoCAD	3	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221
MET225	Manufacturing Processes	3	
or AIT122	or Machine Tools	<b>or</b> 4	
PHY121	College Physics I with Algebra (lab)	<u>4</u>	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency
		14-15	·
Third Semester			
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125
MET221	Advanced Strength of Materials	2	MET124
MET222	Fluid Power	4	MET124
MET228	Machine Design	<u>4</u>	MET124
		13	
Fourth Semester			ONTHIOSE D. C.
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
MET223	Dynamics	2	MET124
MET226	Technical Project - Mechanical and Design	2	Pre-Co-MET228 and Pre-Co-DET125
MET227	Thermodynamics and Heat Transfer	3	PHY121
ENG221	Technical Report Writing	3	ENG124
Arts & Humanities E	Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		17	
	TOTAL CREDITS	62-63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



### ASSOCIATE OF APPLIED SCIENCE

### MECHANICAL ENGINEERING TECHNOLOGY FUEL CELL MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

**2021 Catalog**Effective Summer 2020

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Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre Co-PHY221	
MET229	Introduction to Alternative and Renewable Energy/Fuel Cells	3		
MET228	Machine Design	4	MET124	
MET225	Manufacturing Processes	3		
or AIT122	or Machine Tools	<b>or</b> 4		
MET230	Analysis/Applications of Fuel Cells	3	MET229	
MET231	Fuel Cell Systems	3	MET230	
MET227	Thermodynamics and Heat Transfer	3	PHY121	
MET232	Fuel Cell Project	3	MET231	
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
	Total	33-34		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
DET125	Basic AutoCAD	3		
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency	
CHM141	General Chemistry I (lab) ▲	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)	
ENG124	College Composition^	3	Co-ENG024 or Co- ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
EITGEZI				
L1(0221	Select one (1) Arts & Humanities Elective <sup>1</sup>	3	Check for prerequisites	
ENG221	Select one (1) Arts & Humanities Elective <sup>1</sup> Total	3 30	Check for prerequisites	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

### MECHANICAL ENGINEERING TECHNOLOGY - FUEL CELL MAJOR

4051

### FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MET229	Introduction to Alternative and Renewable Energy/Fuel Cells	3	·
CHM141	General Chemistry I (lab) ▲	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
DET125	Basic AutoCAD	<u>3</u>	•
		20	
Second Semester			
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221
MET230	Analysis/Applications of Fuel Cells	3	MET229
CSE122	Programming Logic and Problem Solving <sup>^</sup>	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
PHY121	College Physics I with Algebra (lab) <sup>^</sup>	<u>4</u>	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency
		14	, and a significant significan
Third Semester			
MET228	Machine Design	4	MET124
MET231	Fuel Cell Systems	3	MET230
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125
EST230	Electrical Circuits and Devices^	<u>4</u>	(MTH025 or Proficiency) <b>or</b> MTH107
		14	
Fourth Semester			
MET227	Thermodynamics and Heat Transfer	3	PHY121
MET232	Fuel Cell Project	3	MET231
ENG221	Technical Report Writing	3	ENG124
MET225	Manufacturing Processes	3	
or	or	or	
AIT122	Machine Tools	4	
Arts & Humanities I	Elective <sup>,</sup>	<u>3</u>	Check for prerequisites
	TOTAL ODEDITO	15-16	
sed on SSC placement score	TOTAL CREDITS	63-64	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

2021 Catalog

Effective Summer 2020

### MECHANICAL ENGINEERING TECHNOLOGY - FUEL CELL MAJOR

4051

▲ Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

¹Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ONE-YEAR CERTIFICATE FUEL CELL TECHNOLOGY

**2021 Catalog**Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
MET225	Manufacturing Processes	3		
MET229	Introduction to Alternative and Renewable Energy/Fuel Cells	3		
MET230	Analysis/Applications of Fuel Cells	3	MET229	
MET231	Fuel Cell Systems	3	MET230	
MET232	Fuel Cell Project	3	MET231	
	Total	19		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
DET125	Basic AutoCAD	3		
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
	Total	12		
	TOTAL CREDIT HOURS	31		

177

<sup>^</sup> Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

### ONE-YEAR CERTIFICATE FUEL CELL TECHNOLOGY

4052

### FULL-TIME STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- or Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
MET229	Introduction to Alternative and Renewable Energy/Fuel Cells	<u>3</u>	
	Energy/Fuer Cens	9	
Second Semester			
MET230	Analysis/Applications of Fuel Cells	3	MET229
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
DET125	Basic AutoCAD	3	WITHTO
MET225	Manufacturing Processes	<u>3</u>	
		13	
Third Semester			
MET231	Fuel Cell Systems	3	MET230
MET232	Fuel Cell Project	3	MET231
CSE122	Programming Logic and Problem Solving <sup>^</sup>	<u>3</u>	(IDS102 or Proficiency) and (ITD100 or Proficiency)
		9	
	TOTAL CREDITS	31	

<sup>^</sup> Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

# Stark State COLLEGE

# ASSOCIATE OF APPLIED SCIENCE

# MECHANICAL ENGINEERING TECHNOLOGY - DESIGN MAJOR

**2021 Catalog**Effective Summer 2020

4058

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DET121	Engineering Drawing	3		
DET124	Working Drawings	3	DET121 and Co-DET125	
MET223	Dynamics	2	MET124	
DET226	Geometric Dimensioning and Tolerancing	2	DET124	
MET226	Technical Project - Mechanical and Design	2	Pre-Co-MET228 and Pre- Co-DET125	
MET225	Manufacturing Processes	3		
or AIT122	Machine Tools	<b>or</b> 4		
MET228	Machine Design	4	MET124	
DET126	Customizing AutoCAD	3	DET125	
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125	
DET131	Pro/ENGINEER (Creo Parametric)	3	DET125	
DET132	SolidWorks with 3D Printing and Scanning	3	DET125	
	Total	31-32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
DET125	Basic AutoCAD	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MET123	Material Science	3		
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 or (MTH125 and MTH130) or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co- ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	63-64		

179

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Effective Summer 2020

# MECHANICAL ENGINEERING TECHNOLOGY - DESIGN MAJOR

4058

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		<u>Credit</u> Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
DET121	Engineering Drawing	3	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
DET125	Basic AutoCAD	<u>3</u>	
		18	
Second Semester			
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125
DET124	Working Drawings	3	DET121 and Co-DET125 MTH135 or
PHY121	College Physics I with Algebra (lab)	4	(MTH125 and MTH130) or Proficiency
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221
DET126	Customizing AutoCAD	<u>3</u>	DET125
		17	
Third Semester			
DET226	Geometric Dimensioning and Tolerancing	2	DET124
MET123	Material Science	3	
MET225	Manufacturing Processes	3	
or AIT122	<b>or</b> Machine Tools	<b>or</b> 4	
DET131	Pro/ENGINEER (Creo Parametric)	3	DET125
MET223	Dynamics	<u>2</u>	MET124
WIE 1223	Dynamics	<u>=</u> 13-14	11111124
Fourth Semester		10 14	
MET226	Technical Project - Mechanical and Design	2	Pre-Co-MET228 <b>and</b> Pre-Co-DET125
MET228	Machine Design	4	MET124
ENG221	Technical Report Writing	3	ENG124
Arts & Humanities	-	3	Check for prerequisites
DET132	SolidWorks with 3D Printing and Scanning	<u>3</u>	DET125
		<u> </u>	
	TOTAL CREDITS	63-64	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ASSOCIATE OF SCIENCE

# PRE-ENGINEERING – MECHANICAL ENGINEERING

4054

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

# ARTICULATING TO A BS IN MECHANICAL ENGINEERING WITH THE UNIVERSITY OF AKRON and UNIVERSITY OF MOUNT UNION

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXI	PERIENCE			
SSC101	Student Success Seminar^^	1	Take first semester	
WRITTEN & OR	AL COMMUNICATION			
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
SOCIAL & BEHA	AVIORAL SCIENCES			
BUS221	Microeconomics^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity	3		
ARTS & HUMAN	NITIES			
HIS122	U.S. History II from 1877	3		
PHL122	Ethics	3		
SCIENCES & MA	ATHEMATICS			
CHM141	General Chemistry I (lab) <sup>^</sup> ▲	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)	
CHM142	General Chemistry II (lab)	5	CHM141	
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
MTH223	Analytical Geometry and Calculus I^*	4	MTH135 or (MTH125 and MTH130) or Proficiency	
MTH224	Analytical Geometry and Calculus II	4	MTH223	
CONCENTRATION	ON CORE			
MTH225	Analytical Geometry and Calculus III	4	MTH224	
PHY221	General Physics I w/Calculus (lab)	5	MTH223 and MTH224	
CST121	Modeling and Simulation	3	MTH221 or MTH223	
DET125	Basic AutoCAD	3		
MET123	Material Science	3		
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221	
MET221	Advanced Strength of Materials	2	MET124	
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites. \*Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for

Effective Summer 2020

# **PRE-ENGINEERING - MECHANICAL ENGINEERING**

4054

Precalculus.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CHM141	General Chemistry I (lab) <sup>∧</sup> ▲	5	(CHM101 or Proficiency) or
	• • • •		(MTH024 or MTH025 or
			Proficiency)
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
			Proficiency
MTH135	Precalculus^ – A student may take MTH125 (College	<u>5</u>	MTH025 or Proficiency
	Algebra) and MTH130 (Trigonometry) over two		
	semesters to satisfy this requirement.	4.4	
0 10		14	
Second Semester	P4:	2	
PHL122	Ethics	3	
SOC225	Cultural Diversity	3	) (T) (105 ) (105 ) 1
MTH223	Analytical Geometry and Calculus 1 <sup>*</sup>	4	MTH135 or (MTH125 and
		_	MTH130) <b>or</b> Proficiency
CHM142	General Chemistry II (lab)	<u>5</u>	CHM141
		15	
Summer Semester			) (TYYAAA
MTH224	Analytical Geometry and Calculus II	4	MTH223
Thind Comments			
Third Semester	Cananal Phasica I and Calculus (lab)	_	MT11222 and MT11224
PHY221	General Physics I w/Calculus (lab)	5	MTH223 and MTH224
MTH225	Analytical Geometry and Calculus III	4	MTH224
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 or
DIJCOOL	Μ'	2	Pre-Co-PHY221
BUS221	Microeconomics^	<u>3</u>	IDS102 or Proficiency
E 4.0		16	
Fourth Semester	M. L.P 1 C' 1 d'	2	MT11221 MT11222
CST121	Modeling and Simulation	3	MTH221 or MTH223
MET221	Advanced Strength of Materials	2	MET124
MET123	Material Science	3	
HIS122	U.S. History II from 1877	3	
DET125	Basic AutoCAD	<u>3</u>	
		14	
1 000 1	TOTAL CREDITS	63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Because of the strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

\*Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for Precalculus.

Effective Summer 2020

# PRE-ENGINEERING – MECHANICAL ENGINEERING

4054

# FULL-TIME STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# The University of Akron

### Elective Additional Credit

Bridge courses that can be taken at Stark State College, prior to attending The University of Akron, that apply towards The University of Akron BS Degree: COM121 Effective Speaking, ENG221 Technical Report Writing, PHY222 General Physics II w/Calculus, and MTH227 Ordinary Differential Equations. If you plan on taking additional courses at Stark State College beyond this list, we recommend you verify transferability with a University of Akron advisor prior to taking the course. Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer. Contact The University of Akron's Transfer Student Services Center (330-972-7009) during the first semester to discuss junior year Stark State College Associate of Science pre-engineering transition strategies to The University of Akron's Engineering BS programs.

# **University of Mount Union**

#### Summer 2

After completing the Pre-Engineering Program at Stark State College it is expected that you complete the Thermal Science (2 credits) and Fluid Mechanics I (2 credits) courses at the University of Mount Union to stay on track to complete the BS Degree in four years.

#### Elective Additional Credit

Bridge courses that can be taken at Stark State College, prior to attending the University of Mount Union, that apply towards the University of Mount Union's BS Degree: Foreign Language I, Foreign Language II, MET223 Dynamics, PHY222 General Physics II w/Calculus, and MTH227 Ordinary Differential Equations. If you plan on taking additional courses at Stark State College beyond this list, we recommend you verify transferability with a University of Mount Union advisor prior to taking the course. Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer. Contact the University of Mount Union's Transfer Student Services Center number (330-829-8238) during the first semester to discuss junior year Stark State College Associate of Science pre-engineering transition strategies to the University of Mount Union's Engineering BS programs.

#### Advising:

You are highly encouraged to contact Dr. Osama Jadaan, Chair of the Department of Engineering at the University of Mount Union during

Effective Summer 2020

# PRE-ENGINEERING - MECHANICAL ENGINEERING

4054

your first year at Stark State for curricular advising to stay on track to graduate with BS degree in four years. You can email him at <a href="mailto:jadaanos@mountunion.edu">jadaanos@mountunion.edu</a> or call 330-823-5989.



# ASSOCIATE OF APPLIED SCIENCE

# ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY

Effective Summer 2020

2021 Catalog

4100

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) and EET120	
EET123	Electronic Devices and Circuits	4	EET120 <b>and</b> Pre-Co-EET122	
EET126	Electrical Machines	4	Pre-Co-EET122	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
EET232	Industrial Electronics	4	EET123	
AIT139	Introduction to Robotics	2		
AIT220	Industrial Robotics	4	AIT139	
EET233	Technical Project – Electrical/Electronic	1	EET123 and EET227	
	Total	33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
CSE233	C++ Programming	3	CSE122	
DET125	Basic AutoCAD	3		
EET128	NEC and Electrical Systems Design	2	EET122	
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co- ENG011 <b>or</b> Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below. <sup>1</sup>	3	Check for prerequisites	
	Total	30		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Effective Summer 2020

# ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY

4100

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency)
EET120	DC Circuit Analysis	4	and (ITD100 or Proficiency) Pre-Co-MTH125 or Pre-Co-MTH135
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	<u>5</u>	MTH025 or Proficiency
	•	16	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) and EET120
EET123	Electronic Devices and Circuits	4	EET120 and Pre-Co-EET122
EET126	Electrical Machines	4	Pre-Co-EET122
PHY121	College Physics I with Algebra (lab)^	<u>4</u>	MTH135 or
		16	(MTH125 and MTH130) <b>or</b> Proficiency
Third Semester		10	
DET125	Basic AutoCAD	3	
EET128	NEC and Electrical Systems Design	2	EET122
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
ENG221	Technical Report Writing	3	ENG124
CSE233	C++ Programming	3	CSE122
AIT139	Introduction to Robotics	<u>2</u>	CD2122
		<u> </u>	
Fourth Semester			
AIT220	Industrial Robotics	4	AIT139
EET228	PLCs and Industrial Controls II	3	EET227
EET232	Industrial Electronics	4	EET123
EET233	Technical Project – Electrical/Electronic	1	EET123 and EET227
Arts & Humanities	Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		15	
	TOTAL CREDITS	63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

# Stark State COLLEGE

# ASSOCIATE OF APPLIED SCIENCE

# ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY - ELECTRO-MECHANICAL MAJOR

2021 Catalog

Effective Summer 2020

4101

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co- MTH135) and EET120	
EET123	Electronic Devices and Circuits	4	EET120 and Pre-Co-EET122	
EET126	Electrical Machines	4	Pre-Co-EET122	
EET227	PLCs and Industrial Controls I	3	EET120 <b>or</b> EST230	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221	
MET228	Machine Design	4	MET124	
MET226	Technical Project – Mechanical and Design	2	Pre-Co-MET228 and Pre-Co-DET125	
MET227	Thermodynamics and Heat Transfer	3	PHY121	
MET123	Material Science	3		
	Total	35		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
DET125	Basic AutoCAD	3		
EET263	Industrial Sensors and Advanced Applications	2	EET120 or EST230	
MET225	Manufacturing Processes	3		
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 <b>or</b> Proficiency	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from list below <sup>1</sup>	3	Check for pre-requisites	
		3 30	Check for pre-requisites	

187

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Effective Summer 2020

# ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY - ELECTRO-MECHANICAL MAJOR

4101

# FULL-TIME STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- or Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency)
EET120	DC Circuit Analysis	4	and (ITD100 or Proficiency) Pre-Co-MTH125 or Pre-Co-MTH135
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry)	<u>5</u>	MTH025 or Proficiency
C 1 C	over two semesters to satisfy this requirement.	16	
Second Semester EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or
MET124	Statics and Strength of Materials	4	Pre-Co-MTH135) and EET120 Pre-Co-PHY121 or Pre-Co-PHY221
EET126	Electrical Machines	4	Pre-Co-EET122
PHY121	College Physics I with Algebra (lab)^	<u>4</u>	MTH135 or
		16	(MTH125 and MTH130) or Proficiency
Third Semester		16	
MET227	Thermodynamics and Heat Transfer	3	PHY121
EET123	Electronic Devices and Circuits	4	EET120 and Pre- or Co-EET122
EET227	PLCs and Industrial Controls I	3	EET120 <b>or</b> EST230
MET123	Material Science	3	
ENG221	Technical Report Writing	3	ENG124
DET125	Basic AutoCAD	<u>3</u>	
		19	
Fourth Semester			
MET228	Machine Design	4	MET124
MET226	Technical Project – Mechanical and Design	2	Pre-Co-MET228 and Pre-Co-DET125
MET225	Manufacturing Processes	3	and 110-00-DE1123
EET263	Industrial Sensors and Advanced Application	2	EET120 <b>or</b> EST230
Arts & Humanities	s Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		14	
	TOTAL CREDITS	65	

188

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ASSOCIATE OF SCIENCE

# PRE-ENGINEERING – ELECTRICAL ENGINEERING

4102

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

# ARTICULATING TO A BS IN ELECTRICAL ENGINEERING WITH THE UNIVERSITY OF AKRON

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXI	PERIENCE			
SSC101	Student Success Seminar^^	1	Take first semester	
WRITTEN & OR	AL COMMUNICATION			
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
SOCIAL & BEHA	AVIORAL SCIENCES			
BUS221	Microeconomics^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity	3		
ARTS & HUMAN	NITIES			
HIS122	U.S. History II from 1877	3		
PHL122	Ethics	3		
SCIENCES & MA	ATHEMATICS			
CHM141	General Chemistry I (lab) <sup>^</sup> ▲	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)	
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
MTH223	Analytical Geometry and Calculus I^*	4	MTH135 or (MTH125 and MTH130) or Proficiency	
MTH224	Analytical Geometry and Calculus II	4	MTH223	
MTH227	Ordinary Differential Equations	3	MTH224	
CONCENTRATION	ON CORE			
MTH225	Analytical Geometry and Calculus III	4	MTH224	
PHY221	General Physics I w/Calculus (lab)	5	MTH223 and MTH224	
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co- MTH135) and EET120	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
CST121	Modeling and Simulation	3	MTH221 or MTH223	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221	
	TOTAL CREDIT HOURS	64		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

ABecause of the strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>\*</sup>Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving

Effective Summer 2020

# PRE-ENGINEERING - ELECTRICAL **ENGINEERING**

4102

credit for Precalculus.

# FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### Elective Additional Credit

Bridge courses that can be taken at Stark State College, prior to attending the University of Akron, that apply towards the University of Akron BS Degree: COM121, ENG221, PHY222, MTH227 and CSE233. If you plan on taking additional courses at Stark State College beyond this list, we recommend you verify transferability with a University of Akron advisor prior to taking the course. Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at http://www.transferology.com to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer. Contact the University of Akron's Transfer Student Services Center (330-972-7009) during the first semester to discuss junior year Stark State College Associate of Science pre-engineering transition strategies to the University of Akron's Engineering BS programs.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CHM141	General Chemistry I (lab) <sup>^</sup> ▲	5	(CHM101 or Proficiency) or
			(MTH024 or MTH025 or Proficiency)
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or
		_	Proficiency
MTH135	Precalculus^ – A student may take MTH125	5	MTH025 or Proficiency
	(College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.		
EET120	DC Circuit Analysis	<u>4</u>	Pre-Co-MTH125
EE1120	De circuit Analysis	<u>±</u>	<b>or</b> Pre-Co-MTH135
		18	of the committee
Second Semester		10	
SOC225	Cultural Diversity	3	
MTH223	Analytical Geometry and Calculus I^*	4	MTH135 or (MTH125 and MTH130) or
			Proficiency
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or
			Pre-Co-MTH135) and EET120
PHL122	Ethics	<u>3</u>	
		14	
Summer Semester			
MTH224	Analytical Geometry and Calculus II	4	MTH223
FF1: 1.0			
Third Semester	C 1 Db 1 (C.1. 1 (1.1.)	E	MT11002 1 MT11004
PHY221	General Physics I w/Calculus (lab)	5	MTH223 <b>and</b> MTH224 MTH224
MTH225 MET124	Analytical Geometry and Calculus III Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221
MIE I 124	Statics and Strength of Materials	4 13	Pie-Co-Ph i 121 of Pie-Co-Ph i 221
Fourth Semester		13	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency)
CSL122	1 Togramming Logic and 1 Toolem Solving	3	and (ITD100 or Proficiency)
MTH227	Ordinary Differential Equations	3	MTH224
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
CST121	Modeling and Simulation	3	MTH221 or MTH223
HIS122	U.S. History II from 1877	3	
	•	3 <b>15</b>	
	TOTAL CREDITS	64	
1 CCC1			

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Because of the strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not 190

Effective Summer 2020

# PRE-ENGINEERING - ELECTRICAL ENGINEERING

4102

complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

\*Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for Precalculus.



# ASSOCIATE OF APPLIED SCIENCE **CIVIL ENGINEERING TECHNOLOGY**

2021 Catalog Effective Summer 2020

4200

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET122	Architectural Drafting I	3		
CET125	Soil Mechanics	3	(MTH125 or MTH135) and MET124	
CET222	Concrete and Asphalt Testing	3	(MTH125 or MTH135) and CET121	
CET223	Structural Design I	3	Pre-Co-MET124	
CET226	Estimating	3	(MTH025 or Proficiency) <b>and</b> CET121 <b>and</b> (ITD100 or Proficiency) <b>and</b> (CET122 or DET125 or CET237)	
CET227	Surveying I	3	MTH125 or MTH135	
CET228	Surveying II	3	CET227	
CET232	Land Planning and Design	3	Pre-Co-CET227 and (CET122 or CET124 or DET125)	
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 and CET122	
CET236	Global Positioning Systems	3	CET227	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
		1	Take jirsi semesier	
CET121	Building Materials and Construction Methods	3	Take just semester	
CET121 DET125	Building Materials and Construction Methods Basic AutoCAD		Tuke first semester	
		3	Co-ENG024 or Co-ENG011 or Proficiency	
DET125	Basic AutoCAD	3	Co-ENG024 or Co-ENG011 or	
DET125 ENG124	Basic AutoCAD  College Composition^	3 3	Co-ENG024 or Co-ENG011 or Proficiency	
DET125 ENG124 ENG221	Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^  Statics and Strength of Materials	3 3 3 3	Co-ENG024 or Co-ENG011 or Proficiency ENG124	
DET125 ENG124 ENG221 ITD122	Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^	3 3 3 3	Co-ENG024 or Co-ENG011 or Proficiency ENG124 ITD100 or Proficiency Pre-Co-PHY121 or Pre-Co-PHY221 MTH025 or Proficiency	
DET125 ENG124 ENG221 ITD122 MET124	Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^  Statics and Strength of Materials  Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry)	3 3 3 3 4	Co-ENG024 or Co-ENG011 or Proficiency ENG124 ITD100 or Proficiency Pre-Co-PHY121 or Pre-Co-PHY221	
DET125 ENG124 ENG221 ITD122 MET124 MTH135	Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^  Statics and Strength of Materials  Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	3 3 3 3 4 5	Co-ENG024 or Co-ENG011 or Proficiency ENG124 ITD100 or Proficiency Pre-Co-PHY121 or Pre-Co-PHY221 MTH025 or Proficiency MTH135 or (MTH125 and MTH130) or	
DET125 ENG124 ENG221 ITD122 MET124 MTH135	Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^  Statics and Strength of Materials  Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.  College Physics I with Algebra (lab)  Select one (1) Arts & Humanities Elective	3 3 3 3 4 5	Co-ENG024 or Co-ENG011 or Proficiency ENG124 ITD100 or Proficiency Pre-Co-PHY121 or Pre-Co-PHY221 MTH025 or Proficiency  MTH135 or (MTH125 and MTH130) or Proficiency	

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<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

<u>First Semester</u> <u>Credit Hours</u> <u>Pre- and Co-</u>	<u>-requisites</u>
SSC101 Student Success Seminar^^ 1 Take first s	semester
ENG124 College Composition 3 Co-ENG024 or Co-Profici	
CET121 Building Materials and Construction Methods 3	
CET122 Architectural Drafting I 3	
MTH135 Precalculus^ – A student may take MTH125 5 MTH025 or 1 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	Proficiency
ITD122 Computer Applications for Professionals^ <u>3</u> ITD100 <b>or</b> F	Proficiency
18	
Second Semester	
MET124 Statics and Strength of Materials 4 Pre-Co-PH Pre-Co-PH	
DET125 Basic AutoCAD 3	
CET227 Surveying I 3 MTH125 or	· MTH135
PHY121 College Physics I with Algebra (lab) 4 MTH13 (MTH125 and Profici	MTH130) or
14	
Third Semester	
CET125 Soil Mechanics 3 (MTH125 or MTH1	35) <b>and</b> MET124
ENG221 Technical Report Writing 3 ENG	124
CET223 Structural Design I 3 Pre-Co-M	IET124
CET222 Concrete and Asphalt Testing 3 (MTH125 or MTH1	135) <b>and</b> CET121
CET232 Land Planning and Design 3 Pre-Co-CET227 a CET124 or	*
15	,
Fourth Semester	
CET226         Estimating         3         (MTH025 or Proceed of CET121 and (ITD1) and (ITD1) and (CET122 or DET121 and (ITD1) and (CET122 or DET121) and (ITD1) and (ITD	00 or Proficiency)
CET236 Global Positioning Systems 3 CET2	
CET228 Surveying II 3 CET2	227
CET234 Architectural CAD (REVIT 3D – BIM) 3 CET121 and	d CET122
Arts & Humanities Elective <sup>1</sup> 3 Check for pr	erequisites
15	•
TOTAL CREDITS 62	

193

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ASSOCIATE OF APPLIED SCIENCE

# CIVIL ENGINEERING TECHNOLOGY - ARCHITECTURAL MAJOR

2021 Catalog

Effective Summer 2020

**4201** 



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET122	Architectural Drafting I	3		
CET123	Architectural Drafting II	3	CET121 and CET122	
CET223	Structural Design I	3	Pre-Co-MET124	
CET225	Sustainable Building Service Systems	3	CET121	
CET226	Estimating	3	(MTH025 or Proficiency) <b>and</b> CET121 <b>and</b> (ITD100 or Proficiency) <b>and</b> (CET122 or DET125 or CET237)	
CET227	Surveying I	3	MTH125 or MTH135	
CET232	Land Planning and Design	3	Pre-Co-CET227 and (CET122 or CET124 or DET125)	
CET233	Architectural Design	3	CET122 and Pre-Co-CET123	
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 and CET122	
CET235	Construction Management, Job Cost and Safety	3	CET121 <b>and</b> (ITD100 or Proficiency)	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CET121	Building Materials and Construction Methods	3		
DET125	Basic AutoCAD	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from the list below. <sup>1</sup>	3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	62		

194

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Effective Summer 2020

# CIVIL ENGINEERING TECHNOLOGY - ARCHITECTURAL MAJOR

4201

# FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
CET121	<b>Building Materials and Construction Methods</b>	3	
CET122	Architectural Drafting I	3	
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		18	
Second Semester			
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221
CET123	Architectural Drafting II	3	CET121 and CET122
CET227	Surveying I	3	MTH125 or MTH135
PHY121	College Physics I with Algebra (lab)	<u>4</u>	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency
		14	Tronelency
Third Semester			
ENG221	Technical Report Writing	3	ENG124
DET125	Basic AutoCAD	3	
CET223	Structural Design I	3	Pre-Co-MET124
CET232	Land Planning and Design	3	Pre-Co-CET227 and (CET122 or CET124 or DET125)
CET235	Construction Management, Job Cost and Safety	<u>3</u>	CET121 and (ITD100 or Proficiency)
		15	
Fourth Semester			
CET226	Estimating	3	(MTH025 or Proficiency) <b>and</b> CET121 <b>and</b> (ITD100 or Proficiency) <b>and</b> (CET122 or DET125 or CET237)
CET225	Sustainable Building Service Systems	3	CET121
CET233	Architectural Design	3	CET122 and Pre-Co-CET123
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 and CET122
Arts & Humanities	Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		15	· •
	TOTAL CREDITS	62	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ASSOCIATE OF APPLIED SCIENCE

# **CIVIL ENGINEERING TECHNOLOGY -CONSTRUCTION MANAGEMENT MAJOR**

2021 Catalog Effective Summer 2020

4204

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET125	Soil Mechanics	3	(MTH125 or MTH135)	
or CET222	Oncrete and Asphalt Testing	or 3	and MET124 (MTH125 or MTH135) and CET121	
CET223	Structural Design I	3	Pre-Co-MET124	
CET225	Sustainable Building Service Systems	3	CET121 and MTH135	
CET226	Estimating	3	(MTH025 or Proficiency) <b>and</b> CET121 <b>and</b> (ITD100 or Proficiency) <b>and</b> (CET122 or DET125 or CET237)	
CET227	Surveying I	3	MTH125 or MTH135	
CET232	Land Planning and Design	3	Pre-Co-CET227 and (CET122 or CET124 or DET125)	
CET235	Construction Management, Job Cost and Safety	3	CET121 <b>and</b> (ITD100 or Proficiency)	
CET236	Global Positioning Systems	3	CET227	
CET237	Interpreting Construction Documents	3		
CET239	Building Code Applications	3	CET121 <b>and</b> (CET237 or CET122)	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
	Course Title  Student Success Seminar^^	Credits	Pre- and Co-Requisites  Take first semester	
Course Number			-	
Course Number SSC101	Student Success Seminar^^	1	-	
Course Number SSC101 CET121	Student Success Seminar^^  Building Materials and Construction Methods	1 3	-	
SSC101 CET121 DET125	Student Success Seminar^^  Building Materials and Construction Methods  Basic AutoCAD	1 3 3	Take first semester  Co-ENG024 or Co-ENG011 or	
SSC101 CET121 DET125 ENG124	Student Success Seminar^^  Building Materials and Construction Methods  Basic AutoCAD  College Composition^	1 3 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency	
SSC101 CET121 DET125 ENG124 ENG221	Student Success Seminar^^  Building Materials and Construction Methods  Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^  Statics and Strength of Materials	1 3 3 3 3	Co-ENG024 or Co-ENG011 or Proficiency ENG124	
SSC101 CET121 DET125 ENG124 ENG221 ITD122	Student Success Seminar^^  Building Materials and Construction Methods  Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^	1 3 3 3 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency ENG124  ITD100 or Proficiency Pre-Co-PHY121 or	
SSC101 CET121 DET125 ENG124 ENG221 ITD122 MET124	Student Success Seminar^^  Building Materials and Construction Methods  Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^  Statics and Strength of Materials  Precalculus^ - A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.  College Physics I with Algebra (lab)	1 3 3 3 3 3 4	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency ENG124  ITD100 or Proficiency Pre-Co-PHY121 or Pre-Co-PHY221	
SSC101 CET121 DET125 ENG124 ENG221 ITD122 MET124 MTH135	Student Success Seminar^^  Building Materials and Construction Methods  Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^  Statics and Strength of Materials  Precalculus^ - A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	1 3 3 3 3 3 4	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency ENG124  ITD100 or Proficiency Pre-Co-PHY121 or Pre-Co-PHY221  MTH025 or Proficiency  MTH135 or (MTH125 and MTH130) or	
SSC101 CET121 DET125 ENG124 ENG221 ITD122 MET124 MTH135	Student Success Seminar^^  Building Materials and Construction Methods  Basic AutoCAD  College Composition^  Technical Report Writing  Computer Applications for Professionals^  Statics and Strength of Materials  Precalculus^ - A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.  College Physics I with Algebra (lab)  Select one (1) Arts & Humanities Elective	1 3 3 3 3 4 5	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency ENG124  ITD100 or Proficiency Pre-Co-PHY121 or Pre-Co-PHY221  MTH025 or Proficiency  MTH135 or (MTH125 and MTH130) or Proficiency	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Effective Summer 2020

# CIVIL ENGINEERING TECHNOLOGY - CONSTRUCTION MANAGEMENT MAJOR

4204

# FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
CET121	Building Materials and Construction Methods	3	
CET237	Interpreting Construction Documents	3	
DET125	Basic AutoCAD	3	
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		18	
Second Semester			
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221
CET227	Surveying I	3	MTH125 or MTH135
PHY121	College Physics I with Algebra (lab)	<u>4</u>	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency
		14	(MITTIES and WITTIES) of Tronciency
Third Semester			
CET125	Soil Mechanics	3	(MTH125 or MTH135) and MET124
or CET222	Or Concepts and Asphalt Tasting	<b>or</b> 3	(MTH125 or MTH135) <b>and</b> CET121
Arts & Humanitie	Concrete and Asphalt Testing es Elective <sup>1</sup>	3	Check for prerequisites
CET223	Structural Design I	3	Pre-Co-MET124
CET232	Land Planning and Design	3	Pre-Co-CET227 <b>and</b> (CET122 or CET124 or DET125)
CET235	Construction Management, Job Cost and Safety	<u>3</u>	CET124 of DET123) CET121 and (ITD100 or Proficiency)
		15	
Fourth Semester			
ENG221	Technical Report Writing	3	ENG124
CET225	Sustainable Building Service Systems	3	CET121 and MTH135
CET239	Building Code Applications	3	CET121 and (CET237 or CET122)
CET226	Estimating	3	(MTH025 or Proficiency) and CET121 and (ITD100 or Proficiency) and (CET122 or DET125 or CET237
CET236	Global Positioning Systems	<u>3</u>	CET227
		15	
	TOTAL CREDITS	62	

197

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ASSOCIATE OF SCIENCE PRE-ENGINEERING - CIVIL ENGINEERING

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28. 2021 Catalog

Effective Summer 2020

4205



Engineering Technologies Division

Engineering Technology Department

# ARTICULATING TO A BS IN CIVIL ENGINEERING WITH THE UNIVERSITY OF AKRON and UNIVERSITY OF MOUNT UNION

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXP	ERIENCE			
SSC101	Student Success Seminar^^	1	Take first semester	
WRITTEN & ORA	AL COMMUNICATION			
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
SOCIAL & BEHA	VIORAL SCIENCES			
BUS221	Microeconomics^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity	3		
ARTS & HUMAN	ITIES			
HIS122	U.S. History II from 1877	3		
PHL122	Ethics	3		
SCIENCES & MA	THEMATICS			
CHM141	General Chemistry I (lab)^▲	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)	
CHM142	General Chemistry II (lab)	5	CHM141	
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
MTH223	Analytical Geometry and Calculus I^*	4	MTH135 or (MTH125 and MTH130) or Proficiency	
MTH224	Analytical Geometry and Calculus II	4	MTH223	
CONCENTRATIO	ON CORE			
MTH225	Analytical Geometry and Calculus III	4	MTH224	
PHY221	General Physics I w/Calculus (lab)	5	MTH223 and MTH224	
MTH227	Ordinary Differential Equations	3	MTH224	
CST121	Modeling and Simulation	3	MTH221 or MTH223	
DET125	Basic AutoCAD	3		
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221	
MET221	Advanced Strength of Materials	2	MET124	
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

A Because of the strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

\*Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for Precalculus.

Effective Summer 2020

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CHM141	General Chemistry I (lab) <sup>^</sup> ▲	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	<u>5</u>	MTH025 <b>or</b> Proficiency
C1 C		14	
Second Semester	Edit	2	
PHL122	Ethics	3	
SOC225	Cultural Diversity	3	MT11125 (MT11125 1
MTH223	Analytical Geometry and Calculus 1 <sup>*</sup>	4	MTH135 or (MTH125 and
		_	MTH130) or Proficiency
CHM142	General Chemistry II (lab)	<u>5</u>	CHM141
		15	
Summer Semester MTH224	Analytical Geometry and Calculus II	4	MTH223
Third Semester			
PHY221	General Physics I w/Calculus (lab)	5	MTH223 and MTH224
MTH225	Analytical Geometry and Calculus III	4	MTH224
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 or
	6 · · · · · · · · · · · · · · · · · · ·		Pre-Co-PHY221
CST121	Modeling and Simulation	<u>3</u>	MTH221 <b>or</b> MTH223
651121	modeling and simulation	<u>5</u> 16	WITHER OF WITHERS
Fourth Semester		10	
DET125	Basic AutoCAD	3	
BUS221	Microeconomics^	3	IDS102 or Proficiency
HIS122	U.S. History II from 1877	3	1D3102 of 11offciency
MET221	Advanced Strength of Materials	2	MET124
MTH227	Ordinary Differential Equations	2	MTH224
101111441	Ordinary Differential Equations	$\frac{3}{14}$	W1111224
	TOTAL CDEDITS		
	TOTAL CREDITS	63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>\*</sup>Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for Precalculus.

# PRE-ENGINEERING - CIVIL ENGINEERING

4205

### FULL-TIME STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# The University of Akron

#### **Elective Additional Credit**

Bridge courses that can be taken at Stark State College, prior to attending The University of Akron, that apply towards The University of Akron BS Degree: CET227 Surveying I, CET228 Surveying II, COM121 Effective Speaking, ENG221 Technical Report Writing, ENG231 College Composition II, and PHY222 General Physics II w/Calculus. If you plan on taking additional courses at Stark State College beyond this list, we recommend you verify transferability with a University of Akron advisor prior to taking the course. Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

# Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer. Contact The University of Akron's Transfer Student Services Center (330-972-7009) during the first semester to discuss junior year Stark State College Associate of Science pre-engineering transition strategies to The University of Akron's Engineering BS programs.

# **University of Mount Union**

### Summer 2

After completing the Pre-Engineering Program at Stark State College, it is expected that you complete the Thermal Science (2 credits) and Fluid Mechanics I (2 credits) courses at the University of Mount Union to stay on track to complete the BS Degree in four years.

### Elective Additional Credit

Bridge courses that can be taken at Stark State College, prior to attending the University of Mount Union, that apply towards the University of Mount Union's BS Degree: Foreign Language I, Foreign Language II, PHY 222 General Physics II w/Calculus, and CET121 Building Materials and Construction Methods. If you plan on taking additional courses at Stark State College beyond this list, we recommend you verify transferability with a University of Mount Union advisor prior to taking the course. Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at http://www.transferology.com to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer. Contact the University of Mount Union's Transfer Student Services Center number (330-829-8238) during the first semester to discuss junior year Stark State College Associate of Science pre-engineering transition strategies to the University of Mount Union's Engineering BS programs.

#### Advising:

You are highly encouraged to contact the Chair of the Department of Engineering at the University of Mount Union during your first year at Stark State for curricular advising to stay on track to graduate with a BS degree in four years. You can reach the Department of Engineering at 330-823-3253.



# ASSOCIATE OF APPLIED SCIENCE

# ELECTRIC POWER UTILITY TECHNOLOGY\* LINE WORKER TECHNICIAN MAJOR

**2021 Catalog**Effective Summer 2020

4551

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
IET121	Industrial Management Concepts	2		
EST129	Switchgear, Transformers and Controls	2	EET122 or EST230	
EST235	Power Generation and Grid Technology	3	EST230	
EUT121	Overhead Line Technology I	5		
EUT122	Overhead Line Technology II	5	EUT121	
EUT221	Overhead Line Technology III	5	EUT122	
EUT222	Overhead Line Technology IV	5	EUT221	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PSY124	Industrial/Organizational Psychology	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH107	Industrial Math^	3	(MTH021 or Proficiency) or Pre-Co-MTH007	
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
BUS122	Basic Economics^	3	IDS102 or Proficiency	
PHL122	Ethics	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication^	3	IDS102 or Proficiency	
FIN110	Personal Finance	2		
	Total	31		
	TOTAL CREDIT HOURS	62		

<sup>\*</sup> NOTE: Initial enrollment and continued participation in this program is at the sole discretion of The FirstEnergy Corp of Akron, Ohio.

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Effective Summer 2020

# ELECTRIC POWER UTILITY TECHNOLOGY\* LINE WORKER TECHNICIAN MAJOR

4551

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
EUT121	Overhead Line Technology I	5	
MTH107	Industrial Math^	<u>3</u>	(MTH021 or Proficiency) or Pre-Co-MTH007
		15	
Second Semester			
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
PSY124	Industrial/Organizational Psychology	3	
PHL122	Ethics	3	
COM123	Small Group Communication <sup>^</sup>	3	IDS102 or Proficiency
EUT122	Overhead Line Technology II	<u>5</u>	EUT121
		18	
Third Semester			
PHY101	Principles of Physics (lab)^	4	(MTH024 <b>or</b> MTH025 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
BUS122	Basic Economics^	3	IDS102 or Proficiency
EST235	Power Generation and Grid Technology	3	EST230
EUT221	Overhead Line Technology III	<u>5</u>	EUT122
		15	
Fourth Semester			
FIN110	Personal Finance	2	
ENG221	Technical Report Writing	3	ENG124
IET121	Industrial Management Concepts	2	
EST129	Switchgear, Transformers and Controls	2	EET122 or EST230
EUT222	Overhead Line Technology IV	<u>5</u>	EUT221
		14	
	TOTAL CREDITS	62	

<sup>\* &</sup>lt;u>NOTE</u>: Initial enrollment and continued participation in this program is at the sole discretion of The FirstEnergy Corp of Akron, Ohio.

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.



# ASSOCIATE OF APPLIED SCIENCE

# 2021 Catalog Effective Summer 2020

# **ELECTRIC POWER UTILITY TECHNOLOGY\* SUBSTATION WORKER TECHNICIAN MAJOR**

4552

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
IET121	Industrial Management Concepts	2		
EST129	Switchgear, Transformers and Controls	2	EET122 or EST230	
EST235	Power Generation and Grid Technology	3	EST230	
EUT123	Substation Technology I	5		
EUT124	Substation Technology II	5	EUT123	
EUT224	Substation Technology III	5	EUT124	
EUT225	Substation Technology IV	5	EUT224	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PSY124	Industrial/Organizational Psychology	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH107	Industrial Math^	3	(MTH021 or Proficiency) or Pre-Co-MTH007	
PHY101	Principles of Physics (lab)^	4	(MTH024 <b>or</b> MTH025 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
BUS122	Basic Economics^	3	IDS102 or Proficiency	
PHL122	Ethics	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication^	3	IDS102 or Proficiency	
FIN110	Personal Finance	2		
	Total	31		
	TOTAL CREDIT HOURS	62		

<sup>\*</sup> NOTE: Initial enrollment and continued participation in this program is at the sole discretion of The FirstEnergy Corp of Akron,

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Effective Summer 2020

# **ELECTRIC POWER UTILITY TECHNOLOGY\* SUBSTATION WORKER TECHNICIAN MAJOR**

4552

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
EUT123	Substation Technology I	5	
MTH107	Industrial Math <sup>^</sup>	<u>3</u>	(MTH021 or Proficiency) or Pre-Co-MTH007
		15	
Second Semester			
EST230	Electrical Circuits and Devices <sup>^</sup>	4	(MTH025 or Proficiency) <b>or</b> MTH107
PSY124	Industrial/Organizational Psychology	3	
PHL122	Ethics	3	
COM123	Small Group Communication <sup>^</sup>	3	IDS102 or Proficiency
EUT124	Substation Technology II	<u>5</u>	EUT123
		18	
Third Semester			
PHY101	Principles of Physics (lab)^	4	(MTH024 <b>or</b> MTH025 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
BUS122	Basic Economics^	3	IDS102 or Proficiency
EST235	Power Generation and Grid Technology	3	EST230
EUT224	Substation Technology III	<u>5</u>	EUT124
		15	
Fourth Semester			
FIN110	Personal Finance	2	
ENG221	Technical Report Writing	3	ENG124
IET121	Industrial Management Concepts	2	
EST129	Switchgear, Transformers and Controls	2	EET122 or EST230
EUT225	Substation Technology IV	<u>5</u>	EUT224
		14	
	TOTAL CREDITS	62	

<sup>\*</sup>NOTE: Initial enrollment and continued participation in this program is at the sole discretion of The FirstEnergy Corp of Akron, Ohio.

<sup>^</sup> Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.



# **ONE-YEAR CERTIFICATE**

# SUSTAINABLE/ALTERNATIVE ENERGY TECHNOLOGY

2021 Catalog

Effective Summer 2020

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MY ACADEMIC PLAN

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AET121	Sustainable/Alternative Energy Sources	3		
AET122	Analysis/Applications of Sustainable/Alternative Energy	3	AET121	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
MET225	Manufacturing Processes	3		
AET123	Sustainable/Alternative Energy Systems**	3	AET122	
AET124	Sustainable/Alternative Energy Project**	3	AET123	
EET227	PLCs and Industrial Controls I	3	EST230 or EET120	
	Total	22		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MTH125	College Algebra^	4	Pre-co-MTH025 <b>or</b> MTH023 <b>o</b> r Proficiency	
DET125	Basic AutoCAD	3		
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125	
	Total	11		
	TOTAL CREDIT HOURS	33		

205

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*\*</sup>Eight week courses

Effective Summer 2020

# **ONE-YEAR CERTIFICATE**

# SUSTAINABLE/ALTERNATIVE ENERGY TECHNOLOGY

4053

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- or Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
MTH125	College Algebra^	4	Pre-co-MTH025 <b>or</b> MTH023 <b>o</b> r Proficiency
AET121	Sustainable/Alternative Energy Sources	<u>3</u>	MITTIO23 of Fronteieney
		8	
Second Semester			
AET122	Analysis/Applications of Sustainable/Alternative Energy	3	AET121
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107
MET225	Manufacturing Processes	3	Of Willing
DET125	Basic AutoCAD	<u>3</u>	
		13	
Third Semester			
AET123	Sustainable/Alternative Energy Systems**	3	AET122
AET124	Sustainable/Alternative Energy Project**	3	AET123
EET227	PLCs and Industrial Controls I	3	EST230 or EET120
DET230	AutoCAD Inventor with 3D Printing and Scanning	<u>3</u>	DET 125
		12	
	TOTAL CREDITS	33	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*\*</sup>Eight week courses



# ASSOCIATE OF APPLIED SCIENCE INDUSTRIAL TECHNOLOGY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

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Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST121	Blueprint Reading	2		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST221	Mechanical Drive Components	3		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
IET270	Dimensional Metrology and Inspection I^	3	(MTH025 or Proficiency) <b>or</b> MTH107	
AIT139	Introduction to Robotics	2		
MST125	Basic Pumps	3		
MET225	Manufacturing Processes	3		
TECHNICAL EL	ECTIVES: 7 credit hours minimum (typically 2	to 3 classes	s)	
	See Technical Elective list below. <sup>2</sup> ##	7	Check for prerequisites	
	Total	33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
PHY101	Principles of Physics^	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
MTH107	Industrial Math^	3	(MTH021 or Proficiency) <b>or</b> Pre-Co-MTH007	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121	Effective Speaking	3		
or COM123	or Small Group Communication^	or	IDS102 on Proficiency	
IET121	Industrial Management Concepts	3 2	IDS102 <b>or</b> Proficiency	
MET123	Material Science	3		
NILI 123	Select two (2) courses of Arts & Humanities and/or Social & Behavioral Sciences Electives from the list below. <sup>1</sup>	6	Check for prerequisites	
	Total	31		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup> Arts & Humanities and/or Social & Behavioral Sciences Electives: any course with the following catalog entry: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122, SOC, PSY

<sup>##</sup>Participation in CDL121 requires a valid Ohio Driver's License with 2 years driving experience. Must be 18 years of age and show proof of citizenship. Must meet Department of Transportation (DOT) vision and physical requirements and pass the DOT drug screen.

<sup>&</sup>lt;sup>2</sup> <u>Technical Electives</u>: see last page

# **INDUSTRIAL TECHNOLOGY**

4300

TECHNICAL ELECTIVES: 7 credit hours minimum from the list below.					
Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year	
AIT122	Machine Tools	4			
AIT123	Advanced Machine Tools	4	AIT122		
IET223	Computer Numerical Control	4			
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122		
AIT124	Principles of Rigging	2			
AIT125	Commercial Plumbing	3			
AIT126	Industrial Electrical Applications and Safety	2			
AIT220	Industrial Robotics	4	AIT139		
DET125	Basic AutoCAD	3			
MST136	3G Cert. Preparatory	2	MST127 and MST128		
MST137	6G Cert. Preparatory	5	MST127 and MST128		
MST138	Preparatory Gas Tungsten Arc Welding	5	MST127 and MST128		
MST139	Gas Tungsten Arc Welding Titanium/Stainless Steel	3	MST138		
	CDL Class A – Safe Operation and Control ##		Co-CDL122 and Co-CDL123		
CDL121	1	5			
CDL122	CDL Class A – Advanced Operations and Maintenance	6	Co-CLD121 and Co-CDL123		
CDL123	Commercial Driver's License – Class A	1	Co-CDL121 and Co-CDL122		
AIT133	Advanced Electrical Apps and Safety	2	AIT131		
MST126	Pipefitting Principles & Applications	3			
MST127	Principles of Welding	3	Co-MST128		
MST128	Welding Laboratory	3	Co-MST127		
MST131	Statistical Process Control Charts^	2	(MTH093 and MTH094) or Proficiency		
MST133	Press Working Fundamentals	2			
MST225	DC Crane Control	1			
AIT137	CAD/CAM	4	AIT122 and IET223		
AIT225	Advanced CAD/CAM	4	AIT137		
AIT130	Structural/Maintenance Welding	3			
AIT134	Preventive and Predictive Maintenance	3	MST221 and MST125		
AIT222	Predictive Maintenance Analysis	2	AIT134		
HVC124	Mobile Cab Climate Control	2	1111111		
AIT131	Electrical Applications and Safety	2			
MST124	Furnace Combust Principles	1			
	Plumb and Pipe Code Principles	3	+		
MST135	<u> </u>		EET120 EST220		
EET123	Electronic Devices and Circuits	4	EET120 or EST230		
EET227	PLC's and Industrial Controls I	3	EET120 or EST230		
ETD225	Engineering Special Topics	1	<del> </del>		
ETD226	Engineering Special Topics	3	<del> </del>		
ETD227	Engineering Special Topics				
ETD228 ETD229	Engineering Special Topics Engineering Special Topics	5	+		
MST140	4G Welding Certification Exam Preparatory	3	MST127 and MST128		
MST227	Metallic Inert Gas Welding	3	MST127 and MST128		
ABC110	Electrical Applications I	6	MISTIZI and MISTIZO		
ABC120	Electrical Applications II	5	+		
PIP110	Plumbing/Pipefitting Applications I	6	<del>                                     </del>		
PIP120	Plumbing/Pipefitting Applications II	6	<del>                                     </del>		
PIP130	Plumbing/Pipefitting Applications III	6			
PIP140	HVAC Systems Operations I	6			
PIP150	HVAC Systems Operations II	6	†		

<sup>^</sup>Based on SSC placement scores

# **INDUSTRIAL TECHNOLOGY**

4300

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	<u>Pre- or Co-requisites</u>
SSC101	Student Success Seminar^^	1	Take first semester
ITD122	Computer Applications for Professionals^	3	ITD100 <b>or</b> Proficiency
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MST121	Blueprint Reading	2	Troncioney
MTH107	Industrial Math <sup>^</sup>	3	(MTH021 or Proficiency) <b>or</b> Pre-Co- MTH007
IET270	Dimensional Metrology and Inspection I^	<u>3</u>	(MTH025 or Proficiency) <b>or</b> MTH107
		15	
Second Semester			
MST134	Hydraulic and Pneumatic Systems <sup>^</sup>	6	MTH022 <b>or</b> MTH023 <b>or</b> Proficiency
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
IET121	Industrial Management Concepts	2	
MET123	Material Science	<u>3</u>	
		15	
Third Semester			
ENG221	Technical Report Writing	3	ENG124
PHY101	Principles of Physics^	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
COM121	Effective Speaking	3	
or	or	or	TDG102 D G .
COM123	Small Group Communication^	3	IDS102 or Proficiency
AIT139	Introduction to Robotics	2	
MET225	Manufacturing Processes	3	
Arts & Humanities a	nd/or Social & Behavioral Sciences Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
E 4.0		18	
Fourth Semester	W 1 : 1D: C	2	
MST221	Mechanical Drive Components	3	
Technical Electives		7	Check for prerequisites
MST125	Basic Pumps	3	
Arts & Humanities a	nd/or Social & Behavioral Sciences Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
	TOTAL CREDITO	16	
	TOTAL CREDITS	64	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>##</sup>Participation in CDL121 requires a valid Ohio Driver's License with 2 years driving experience. Must be 18 years of age and show proof of citizenship. Must meet Department of Transportation (DOT) vision and physical requirements and pass the DOT drug screen.

1 Arts & Humanities and/or Social & Behavioral Sciences Electives: ENG 233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122, SOC, PSY

<sup>&</sup>lt;sup>2</sup>Technical Electives: see last page



# ASSOCIATE OF APPLIED SCIENCE

# INDUSTRIAL TECHNOLOGY - INDUSTRIAL MAINTENANCE MAJOR

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT139	Introduction to Robotics	2		
AIT220	Industrial Robotics	4	AIT139	
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) <b>and</b> EET120	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
MST127	Principles of Welding	3	Co-MST128	
MST128	Welding Laboratory	3	Co-MST127	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MTH125	College Algebra^	4	MTH025 <b>or</b> MTH023 <b>or</b> Proficiency	
MTH130	Trigonometry	3	MTH125	
AIT124	Principles of Rigging	2		
MST121	Blueprint Reading	2		
MST221	Mechanical Drive Components	3		
PHY101	Principles of Physics^	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
or	or	or	or	
COM123	Small Group Communications^	3	IDS102 or Proficiency	
PSY124	Industrial/Organizational Psych	3		
	Total	31		
	TOTAL CREDIT HOURS	63		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Effective Summer 2020

# INDUSTRIAL TECHNOLOGY - INDUSTRIAL MAINTENANCE MAJOR

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# FULL-TIME STUDENT ADVISING NOTES

# **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 or
			Pre-Co-MTH135
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
MST121	Blueprint Reading	2	
MTH125	College Algebra^	<u>4</u> <b>14</b>	MTH025 or MTH023 or Proficiency
		14	·
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or
			Pre-Co-MTH135) and EET120
MTH130	Trigonometry	3	MTH125
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Laboratory	3	Co-MST127
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
EET227	PLCs and Industrial Controls I	3 19	EET120 <b>or</b> EST230
		19	
Third Semester			
MST134	Hydraulic and Pneumatic Systems <sup>^</sup>	6	MTH022 <b>or</b> MTH023
			or Proficiency
PHY101	Principles of Physics^	4	(MTH022 or MTH023 or Proficiency) or
			MTH105 or MTH107
EET228	PLCs and Industrial Controls II	3	EET227
AIT139	Introduction to Robotics	<u>2</u>	
		15	
Fourth Semester			
PSY124	Industrial/Organizational Psych	3	
MST221	Mechanical Drive Components	3	AIT139
AIT220	Industrial Robotics	4	
AIT124	Principles of Rigging	2	
ENG221	Technical Report Writing	3	ENG124
or	or	or	or
COM123	Small Group Communication <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		15	
	TOTAL CREDITS	63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

# Stark State

# ASSOCIATE OF APPLIED SCIENCE

# INDUSTRIAL TECHNOLOGY - ADVANCED MANUFACTURING TECHNOLOGY MAJOR

2021 Catalog

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT122	Machine Tools	4		
IET223	Computer Numerical Control	4		
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122	
AIT139	Introduction to Robotics	2		
AIT220	Industrial Robotics	4	AIT139	
AIT226	Robotic Vision	2	AIT220	
IET270	Dimensional Metrology and Inspection I <sup>^</sup>	3	(MTH025 or Proficiency) <b>or</b> MTH107	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST221	Mechanical Drive Components	3	·	
or	or	or		
MET225	Manufacturing Processes	3		
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
DET125	Basic AutoCAD	3		
or	or	or		
AIT137	CAD/CAM	4	AIT122 and IET223	
MST121	Blueprint Reading	2		
PHY101	Principles of Physics^	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107	
MTH107	Industrial Math^	3	(MTH021 or Proficiency) <b>or</b> Pre- Co-MTH007	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
COM121	Effective Speaking	3	•	
or	or	or		
COM123	Small Group Communication^	3	IDS102 or Proficiency	
IET121	Industrial Management Concepts	2	2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	
	Select one (1) course of Arts & Humanities and/or Social & Behavioral Sciences Elective from the list below. <sup>1</sup>	3	Check for prerequisites	
	Total	31-32		
	TOTAL CREDIT HOURS	62-63		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities and/or Social & Behavioral Sciences Electives: ENG233, ENG234, ENG236, ENG237, PHL122, any HIS course, any SOC course, or any PSY course.

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# INDUSTRIAL TECHNOLOGY - ADVANCED MANUFACTURING TECHNOLOGY MAJOR

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# FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar <sup>^</sup>	1	Take first semester
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
AIT139	Introduction to Robotics	2	
AIT122	Machine Tools	4	
MST121	Blueprint Reading	2	
MTH107	Industrial Math^	<u>3</u>	(MTH021 or Proficiency) <b>or</b> Pre-Co-MTH007
		15	
Second Semester			
MST221	Mechanical Drive Components	3	
or	or	or	
MET225	Manufacturing Processes	3	
IET223	Computer Numerical Control	4	
IET270	Dimensional Metrology and Inspection I <sup>^</sup>	3	(MTH025 or Proficiency) <b>or</b> MTH107
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
AIT220	Industrial Robotics	<u>4</u>	AIT139
		17	
Third Semester			
PHY101	Principles of Physics^	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
DET125	Basic AutoCAD	3	
or	or	or	
AIT137	CAD/CAM	4	AIT122 and IET223
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
COM121	Effective Speaking	3	
or	or	or	
COM123	Small Group Communication <sup>^</sup>	3	IDS102 or Proficiency
		14-15	
Fourth Semester			
IET121	Industrial Management Concepts	2	
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122
AIT226	Robotic Vision	2	AIT220
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
Arts & Humanities o	and/or Social & Behavioral Sciences Elective <sup>1</sup>	3 16	Check for prerequisites
AD 1 999	TOTAL CREDITS	62-63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup>Arts & Humanities and/or Social & Behavioral Sciences Electives: ENG233, ENG234, ENG236, ENG237, PHL122, any HIS course, any SOC course, or any PSY course.



# ONE-YEAR CERTIFICATE CNC TECHNICAL

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre-and Co-Requisites	Completed Sem./Year
AIT122	Machine Tools	4		
AIT123	Advanced Machine Tools	4	AIT122	
IET223	Computer Numerical Control	4		
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122	
DET121	Engineering Drawing	3		
or MST121	or Blueprint Reading	<b>or</b> 2		
DET125	Basic AutoCAD	3		
IET270	Dimensional Metrology and Inspection I ^	3	(MTH025 or Proficiency) <b>or</b> MTH107	
AIT137	CAD/CAM	4	AIT122 and IET223	
	Total	27-28		
NON-TECH Course Number	Course Title	Credits	Pre-and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ITD122	Computer Applications for Professionals^	3	ITD100 <b>or</b> Proficiency	
MET123	Material Science	3		
MTH107	Industrial Math^	3		
or MTH125	or College Algebra $\Omega$	<b>or</b> 4	Check for prerequisites	
-	Total	10-11		
	TOTAL CREDIT HOURS	37-39		

214

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH125 College Algebra should only be taken by students planning to transfer to a four-year institution.

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### ONE-YEAR CERTIFICATE CNC TECHNICAL

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#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
MTH107	Industrial Math^	3	
or MTH125	or College Algebra $Ω$	<b>or</b> 4	Check for prerequisites
	-		
AIT122	Machine Tools	4	
IET223	Computer Numerical Control	4	
DET121	Engineering Drawing	3	
or	or	or	
MST121	Blueprint Reading	<u>2</u> 14-16	
		14-10	
Second Semester			
AIT123	Advanced Machine Tools	4	AIT122
AIT137	CAD/CAM	4	AIT122 and IET223
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122
IET270	Dimensional Metrology and Inspection I^	3	(MTH025 or Proficiency) <b>or</b> MTH107
MET123	Material Science	<u>3</u>	MIHIU/
		17	
Summer Semester			
DET125	Basic AutoCAD	3	
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		6	
	TOTAL CREDITS	37-39	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH125 College Algebra should only be taken by students planning to transfer to a four-year institution.



### ONE-YEAR CERTIFICATE WELDING TECHNOLOGY

2021 Catalog

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST121	Blueprint Reading	2		
MST127	Principles of Welding	3	Co-MST128	
MST128	Welding Laboratory	3	Co-MST127	
MST136	3G Welding Certification Exam Preparatory	2	MST127 and MST128	
MST137	6G Welding Certification Exam Preparatory	5	MST127 and MST128	
MST138	Preparatory Gas Tungsten Arc Welding	5	MST127 and MST128	
MST139	Gas Tungsten Arc Welding-Titanium/Stainless Steel	3	MST138	
MST140	4G Welding Certification Exam Preparatory	3	MST127 and MST128	
MST227	Metallic Inert Gas Welding	3	MST127 and MST128	
	Total	29		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MTH107 <b>or</b> MTH125	Industrial Math^ or College Algebra Ω	3 <b>or</b> 4	Check for prerequisites	
MET123	Material Science	3		
	Total	7-8		
	TOTAL CREDIT HOURS	36-37		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH125 College Algebra should only be taken by students planning to transfer to a four-year institution.

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### ONE-YEAR CERTIFICATE WELDING TECHNOLOGY

4309

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- or Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
MST121	Blueprint Reading	2	
MTH107 or MTH125 MST127	Industrial Math^ or College Algebra Ω Principles of Welding	3 or 4 3	Check for prerequisites  Co-MST128
MST128	Welding Laboratory	3	Co-MST127
MET123	Material Science	<u>3</u>	
		15-16	
Second Semester			
MST136	3G Welding Certification Exam Preparatory	2	MST127 and MST128
MST138	Preparatory Gas Tungsten Arc Welding	5	MST127 and MST128
MST140	4G Welding Certification Exam Preparatory	3	MST127 and MST128
MST227	Metallic Inert Gas Welding	3	MST127 and MST128
		13	
Third Semester			
MST137	6G Welding Certification Exam Preparatory	5	MST127 and MST128
MST139	Gas Tungsten Arc Welding-Titanium/Stainless Steel	<u>3</u>	MST138
		8	
	TOTAL CREDITS	36-37	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH125 College Algebra should only be taken by students planning to transfer to a four-year institution.



### ONE-YEAR CERTIFICATE INDUSTRIAL MAINTENANCE

The catalog in force is assigned to students based on the academic year they first applied to the college,

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and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT139	Introduction to Robotics	2		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST221	Mechanical Drive Components	3		
AIT220	Industrial Robotics	4	AIT139	
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
MST127	Principles of Welding	3	Co-MST128	
MST128	Welding Laboratory	3	Co-MST127	
	Total	28		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MTH125	College Algebra^	4	MTH025 <b>or</b> MTH023 <b>or</b> Proficiency	
	Total	5		
	TOTAL CREDIT HOURS	33		

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

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### ONE-YEAR CERTIFICATE INDUSTRIAL MAINTENANCE

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#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135
AIT139	Introduction to Robotics	2	
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Laboratory	3	Co-MST127
MTH125	College Algebra^	<u>4</u>	MTH025 or MTH023 or Proficiency
		17	
Second Semester			
AIT220	Industrial Robotics	4	AIT139
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
MST221	Mechanical Drive Components	3	
EET227	PLCs and Industrial Controls I	<u>3</u>	EET120 or EST230
		16	
	TOTAL CREDITS	33	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.



### ASSOCIATE OF APPLIED SCIENCE ELECTRICAL MAINTENANCE TECHNOLOGY

**2021 Catalog**Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) <b>and</b> EET120	
EET123	Electronic Devices and Circuits	4	EET120 and Pre-Co-EET122	
MST221	Mechanical Drive Components	3		
EST129	Switchgear, Transformers and Controls	2	EET122 or EST230	
EET126	Electrical Machines	4	Pre-Co-EET122	
EET128	NEC and Electrical Systems Design	2	EET122	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
AIT139	Introduction to Robotics	2		
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
DET125	Basic AutoCAD	3		
or MST121	or Blueprint Reading	<b>or</b> 2		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 <b>or</b> Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 or (MTH125 and MTH130) or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co- ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from the list below. <sup>1</sup>	3	Check for prerequisites	
	Total	30-31		
	TOTAL CREDIT HOURS	61-62		

220

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

#### Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
DET125	Basic AutoCAD	3	
or	or	or	
MST121	Blueprint Reading	2	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	<u>5</u>	MTH025 <b>or</b> Proficiency
		15-16	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) <b>and</b> EET120
AIT139	Introduction to Robotics	2	,
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
ENG124	College Composition^	<u>3</u>	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
		15	•
Third Semester			
EET123	Electronic Devices and Circuits	4	EET120 and Pre-Co-EET122
EET128	NEC and Electrical Systems Design	2	EET122
EET227	PLCs and Industrial Controls I	3	EET120 <b>or</b> EST230
MST221	Mechanical Drive Components	3	
ENG221	Technical Report Writing	<u>3</u>	ENG124
		15	
Fourth Semester			
EET126	Electrical Machines	4	Pre-Co-EET122
EET228	PLCs and Industrial Controls II	3	EET227
EST129	Switchgear, Transformers and Controls	2	EET122 or EST230
Arts & Humanities	Elective <sup>1</sup>	3	Check for prerequisites
PHY121	College Physics I with Algebra (lab)	<u>4</u>	MTH135 <b>or</b>
			(MTH125 and MTH130) or Proficiency
		16	
	TOTAL CREDITS	61-62	

221

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



#### ASSOCIATE OF APPLIED SCIENCE

### ELECTRICAL MAINTENANCE TECHNOLOGY - SOLAR ENERGY MAJOR

2021 Catalog

Effective Summer 2020

4405

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) <b>and</b> EET120	
EET123	Electronic Devices and Circuits	4	EET120 <b>and</b> Pre-Co-EET122	
EET126	Electrical Machines	4	Pre-Co-EET122	
EET128	NEC and Electrical Systems Design	2	EET122	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
AET221	Solar Thermal Systems	3	AET121	
AET222	Solar Photovoltaic Systems	3		
EET125	Circuit Manufacturing Techniques	1	EET120	
AET121	Sustainable/AET Sources	3		
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ENV165	OSHA 10-Hour Construction Safety	1		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
DET125	Basic AutoCAD	3		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
PHY121	College Physics I with Algebra^ (lab)	4	MTH135 or (MTH125 and MTH130) or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co- ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from the list below. <sup>1</sup>	3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	63		

222

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Effective Summer 2020

### ELECTRICAL MAINTENANCE TECHNOLOGY - SOLAR ENERGY MAJOR

4405

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
DET125	Basic AutoCAD	3	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 <b>or</b> Proficiency
ENV165	OSHA 10-Hour Construction Safety	$\frac{1}{17}$	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) <b>and</b> EET120
EET125	Circuit Manufacturing Techniques	1	EET120
MST134	Hydraulic and Pneumatic Systems <sup>^</sup>	6	MTH022 or MTH023 or Proficiency
AET121	Sustainable/AET Sources	3	•
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
		17	
Third Semester			
EET123	Electronic Devices and Circuits	4	EET120 and Pre-Co-EET122
EET128	NEC and Electrical Systems Design	2	EET122
EET227	PLCs and Industrial Controls I	3	<b>EET120 or EST230</b>
AET221	Solar Thermal Systems	3	AET 121
ENG221	Technical Report Writing	<u>3</u>	ENG124
		15	
Fourth Semester			
EET126	Electrical Machines	4	Pre-Co-EET122
AET222 PHY121	Solar Photovoltaic Systems	3 4	MTH135 or
PH 1121	College Physics I with Algebra <sup>^</sup> (lab)	4	(MTH125 and MTH130) or Proficiency
Arts & Humanities	Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		14	
	TOTAL CREDITS	63	

223

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



#### ASSOCIATE OF APPLIED SCIENCE

#### 2021 Catalog

Effective Summer 2020

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#### **ENVIRONMENTAL WATER AND WASTEWATER TECHNOLOGY**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Numbers	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENV121	Regulations and Compliance	3		
ENV123	OSHA 10-Hour General Industry Safety	1		
or	or	or		
ENV165	OSHA 10-Hour Construction Safety	1		
PET210	Petroleum Process Controls	3		
MST221	Mechanical Drive Components	3		
ENV221	OSHA 40-Hour HAZWOPER	2		
ENV127	Water Certification Exam Preparation	2		
ENV128	Wastewater Certification Exam Preparation	2 2		
ENV163 PET132	Water/Wastewater Math and Chemistry  Petroleum Instrumentation	3		
		3	(CIDM121 - ;; CIDM141) and ENV/121	
ENV224	Air Sampling, Analysis, and Control	3	(CHM121 or CHM141) <b>and</b> ENV121	
ENV225	Solid and Hazardous Waste Sampling, Analysis and Management	3	(CHM121 or CHM141) <b>and</b> ENV121	
ENV226	Water Sampling, Analysis and Control	3	(CHM121 or CHM141) and ENV121 and ENV223	
TECHNICAL ELE	CTIVES: Choose two (2) credit hours minimum from the l	ist below		
ENV125	Intro to Haz Mat and Waste Management	1		
ENV169	Radiation Safety	2		
ENV230	OSHA 8-Hour Refresher +++	1		
ENV231	OSHA 30-Hour General Industry	2		
	Total	32		
NON-TECH Course Numbers	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MTH107	Industrial Math^	3	(MTH021 or Proficiency) <b>or</b> Pre-Co- MTH007	
DET125	Basic AutoCAD	3		
MST125	Basic Pumps	3		
CHM121	General, Organic and Biological Chemistry I (lab)^▲	4	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
CHM122	General, Organic and Biological Chemistry II (lab)	4	CHM121	
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
AIT134	Preventive and Predictive Maintenance	3	j	
PET102	Intro to Supervisory Control and Data Acquisition (SCADA)	2		
	Select one (1) Arts & Humanities Elective from the list below. <sup>1</sup>	3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	64		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

A Because of strong emphasis on science, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>+++</sup>ENV230 must be taken by students who wish to complete annual refreshers of their 40-Hour HAZWOPER training

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Effective Summer 2020

### ENVIRONMENTAL WATER AND WASTEWATER TECHNOLOGY

4450

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
MTH107	Industrial Math^	3	(MTH021 or Proficiency) <b>or</b> Pre-Co- MTH007
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
PET102	Intro to Supervisory Control and Data Acquisition (SCADA)	2	Troncincy
CHM121	Gen., Org., and Biological Chemistry I (lab) <sup>^</sup> ▲	4	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
ENV163	Water/Wastewater Math and Chemistry	2	
ENV123	OSHA 10-Hour General Industry Safety	1	
or	or	or	
ENV165	OSHA 10-Hour Construction Safety	<u>1</u>	
		16	
Second Semester			
CHM122	Gen., Org., and Biological Chemistry II (lab)	4	CHM121
MST221	Mechanical Drive Components	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
ENV121	Regulations and Compliance	<u>3</u>	
TELL 1.C		15	
Third Semester PET210	Petroleum Process Controls	2	
ENV127		3 2	
ENV127 ENV128	Water Certification Exam Preparation Wastewater Certification Exam Preparation	2	
ENV126 ENV224	Air Sampling, Analysis, and Control	3	(CHM121 or CHM141) and ENV121
DET125	Basic AutoCAD	3	(CHIVITZI OF CHIVIT41) and ENV 121
Arts & Humanities E		<u>3</u>	Check for prerequisites
Titis & Humanines L	nective	<u>-</u> 16	Check for prerequisites
Fourth Semester		10	
MST125	Basic Pumps	3	
AIT134	Preventive and Predictive Maintenance	3	
ENV225	Solid and Hazardous Waste Sampling, Analysis and	3	(CHM121 or CHM141)
	Management		and ENV121
ENIMODE	Water Campling Application of Captural	2	(CHM121 or CHM141)
ENV226	Water Sampling, Analysis and Control	3	and ENV121 and ENV223
PET132	Petroleum Instrumentation	3	
Technical Elective <sup>2</sup>		<u>2</u>	Check for prerequisites
		17	
	TOTAL CREDITS	64	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>+++</sup>ENV230 must be taken by students who wish to complete annual refreshers of their 40-Hour HAZWOPER training

<sup>▲</sup> Because of strong emphasis on science, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>2</sup>Technical Electives: ENV125, ENV169, ENV230+++, ENV231

#### Additional courses available below for CDL Certificate:

Course Numbers	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CDL121	CDL Class A - Safe Operation & Control *	5	CDL122 and CDL123	
CDL122	CDL Class A - Advanced Operations and Maintenance	6	CDL121 and CDL123	
CDL123	Commercial Driver's License - Class A	1	CDL121 and CDL122	

<sup>\*</sup>Participation in CDL121 requires a valid Ohio Driver's License with 2 years' driving experience. Must be 18 years of age and show proof of citizenship. Must meet Department of Transportation (DOT) vision and physical requirements and pass the DOT drug screen.

Students must pass the Ohio CDL Class A Driver's License examination to receive their Class A CDL. The examination is administered at the end of CDL123.



#### ASSOCIATE OF APPLIED SCIENCE

### HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

**2021 Catalog**Effective Summer 2020

4500



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HVC121	HVAC Principles I	3		
HVC122	HVAC Principles II	3	Pre-Co-HVC121	
HVC125	Sheet Metal Layout and Fabrication	4		
HVC222	HVAC Design and Application	3	HVC122	
HVC223	HVAC System Operation and Troubleshooting – Heating	3	HVC122	
HVC224	HVAC System Operation and Troubleshooting – Cooling	3	HVC122	
HVC227	HVAC Field Installation Techniques and Procedures	4	Pre-Co-HVC122	
HVC234	HVAC Electrical Systems and Applications^	3		
TECHNICAL ELF	CCTIVES: 6 credit hours minimum			
HVC232	Hydronic Applications and Design	3	HVC122	
HVC235	Refrigeration	3	HVC122	
HVC237	HVAC Commercial Controls	3	HVC122	
HVC238	Chiller Operations	3	HVC122	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
PHY101	Principles of Physics (lab)^	4	(MTH024or MTH025 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
MTH107	Industrial Math^	3		
or	or	or	Check for prerequisites	
MTH125 ENG124	College Algebra <sup>^</sup> Ω College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121	Effective Speaking	3	None	
or	or	or	or	
COM123	Small Group Communication^  Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective <sup>3</sup>	3	IDS102 <b>or</b> Proficiency  Check for prerequisites	
NON-TECH ELEC	CTIVES: 8 credit hours minimum			
CET121	Building Materials and Construction Methods	3		
DET125	Basic AutoCAD	3		
ENV231	OSHA 30-Hour General Industry	2		
MST121	Blueprint Reading	2		
MST126	Pipefitting Principles and Applications	3		
	1 1 1 1	31-32		
	Total	31-34		

See next page for footnote specifics

Effective Summer 2020

#### HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

4500

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MTH107	Industrial Math^	3	
or	or	or	Check for prerequisites
MTH125 HVC121	College Algebra^ Ω HVAC Principles I	4 3	
HVC122	HVAC Principles II	3	Pre-Co-HVC121
HVC125	•	4	110-00-114 0121
	Sheet Metal Layout and Fabrication		
Non-Technical Elect	uve-	<u>2</u>	Check for prerequisites
		16-17	
Second Semester			
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
HVC222	HVAC Design and Application	3	HVC122
HVC227	HVAC Field Installation Techniques and	4	Pre-Co-HVC122
HVC234	Procedures HVAC Electrical Systems and Applications^	3	
Non-Technical Elect			Chaol for more aviaites
Non-Technicai Eleci	uve-	<u>3</u>	Check for prerequisites
		16	
Third Semester			
COM121	Effective Speaking	3	
or COM123	or Small Group Communication^	<b>or</b> 3	IDS102 or Proficiency
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
HVC223	HVAC System Operation and Troubleshooting – Heating	3	HVC122
HVC224	HVAC System Operation and Troubleshooting – Cooling	3	HVC122
Social & Behavioral	Sciences or Arts & Humanities Elective <sup>3</sup>	<u>3</u>	Check for prerequisites
		15	
Fourth Semester			
ENG221	Technical Report Writing	3	ENG124
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or
1111101	Timespies of Thysics (tab)	-	MTH105 or MTH107
Non-Technical Elect	tive <sup>2</sup>	3	Check for prerequisites
Technical Electives <sup>1</sup>		<u>6</u>	Check for prerequisites
		16	
	TOTAL CREDITS	63-64	

<sup>^</sup>Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

ΩMTH125 should only be taken by students planning to transfer to a four-year institution

AM1H125 should only be taken by students planning to transfer to a four-year institution

Technical Electives: HVC232, HVC235, HVC237, HVC238

Non-technical Electives: CET121, DET125, ENV231, MST121, MST126

Social & Behavioral Sciences or Arts & Humanities electives: BUS122 (recommended), BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS222, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC221, SOC225

# Stark State COLLEGE

#### **ONE-YEAR CERTIFICATE**

# HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

2021 Catalog

Effective Summer 2020

4501

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HVC121	HVAC Principles I	3		
HVC122	HVAC Principles II	3	Pre-Co-HVC121	
HVC125	Sheet Metal Layout and Fabrication	4		
HVC223	HVAC System Operation and Troubleshooting – Heating	3	HVC122	
HVC224	HVAC System Operation and Troubleshooting – Cooling	3	HVC122	
HVC227	HVAC Field Installation Techniques and Procedures	4	Pre-Co-HVC122	
HVC234	HVAC Electrical Systems and Applications^	3		
	Total	23		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
NON-TECH ELE	CCTIVES: 3 credit hours minimum			
CET121	Building Materials and Construction Methods	3		
ENV231	OSHA 30-Hour General Industry	2		
MST121	Blueprint Reading	2		
MST126	Pipefitting Principles and Applications	3		
	Total	7		
	TOTAL CREDIT HOURS	30		

229

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Effective Summer 2020

#### **ONE-YEAR CERTIFICATE**

### HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY

4501

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
HVC121	HVAC Principles I	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
Non-Technical Ele	ctive <sup>2</sup>	<u>3</u>	
		10	
Second Semester			
HVC122	HVAC Principles II	3	Pre-Co-HVC121
HVC125	Sheet Metal Layout and Fabrication	4	
HVC227	HVAC Field Installation Techniques and	4	Pre-Co-HVC122
HVC234	Procedures HVAC Electrical Systems and Applications^	<u>3</u>	
		14	
Summer Semester			
HVC223	HVAC System Operation and Troubleshooting –	3	HVC122
HVC224	Heating HVAC System Operation and Troubleshooting –	<u>3</u>	HVC122
	Cooling	6	
	TOTAL CREDITS	30	

230

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>2</sup>Non-Technical Electives: CET121, ENV231, MST121, MST126



### ASSOCIATE OF APPLIED SCIENCE AUTOMATION AND ROBOTICS TECHNOLOGY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

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Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST221	Mechanical Drive Components	3		
IET223	Computer Numerical Control	4		
AIT139	Introduction to Robotics	2		
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co- MTH135) and EET120	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
AIT220	Industrial Robotics	4	AIT139	
AIT226	Robotic Vision	2	AIT220	
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
CSE229	.Net Development	3	CSE122	
DET125	Basic AutoCAD	3		
NET120	PC Upgrading and Maintenance	3		
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or	
	Conege i nysies i wim i ngesia (lac)	4	(MTH125 and MTH130) <b>or</b> Proficiency	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5		
MTH135 ENG124	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over		Proficiency	
	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	Proficiency  MTH025 or Proficiency  Co-ENG024 or Co-ENG011	
ENG124	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.  College Composition^	5	Proficiency  MTH025 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency	
ENG124 ENG221	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.  College Composition^ Technical Report Writing	5 3 3	Proficiency  MTH025 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

<u>First Semester</u> SSC101	Student Success Seminar^^	<u>Credit Hours</u> 1	<u>Pre- and Co-requisites</u> Take first semester
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)
MST221	Mechanical Drive Components	3	, , , , , , , , , , , , , , , , , , , ,
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
ENG124	College Composition <sup>^</sup>	<u>3</u>	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
C1 Ct		15	
Second Semester			Pre-Co-MTH125 <b>or</b>
EET120	DC Circuit Analysis	4	Pre-Co-MTH135
DET125	Basic AutoCAD	3	
AIT139	Introduction to Robotics	2	
CSE229	.Net Development	3	CSE122
ENG221	Technical Report Writing	<u>3</u>	ENG124
		15	
Third Semester			
AIT220	Industrial Robotics	4	AIT139
IET223	Computer Numerical Control	4	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-
	·		MTH135) and EET120
NET120	PC Upgrading and Maintenance	<u>3</u>	
		18	
Fourth Semester			
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122
AIT226	Robotic Vision	2	AIT220
EET228	PLCs and Industrial Controls II	3	EET227
PHL122	Ethics	3	
			MTH135 or
PHY121	College Physics I with Algebra (lab)^	<u>4</u>	(MTH125 and MTH130) <b>or</b>
			Proficiency
		15	
	TOTAL CREDITS	63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester



### ONE-YEAR CERTIFICATE AUTOMATION AND ROBOTICS TECHNOLOGY

**2021 Catalog**Effective Summer 2020

4555

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IET223	Computer Numerical Control	4		
AIT139	Introduction to Robotics	2		
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 or Pre-Co-MTH135	
EET227	PLCs and Industrial Controls I	3	EST230 or EET120	
MST221	Mechanical Drive Components	3		
TECHNICAL EL	ECTIVES: 2 credit hours minimum			
AIT220	Industrial Robotics	4	AIT139	
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122	
AIT226	Robotic Vision	2	AIT220	
EET228	PLCs and Industrial Controls II	3	EET227	
	Total	18-20		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
DET125	Basic AutoCAD	3		
CSE122	Programming Logic & Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
	Total	12		
	TOTAL CREDIT HOURS	30-32		

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Effective Summer 2020

#### ONE-YEAR CERTIFICATE

#### **AUTOMATION AND ROBOTICS TECHNOLOGY**

4555

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
CSE122	Programming Logic & Problem Solving^	<u>3</u>	(IDS102 or Proficiency) and
		9	(ITD100 or Proficiency)
Second Semester			
AIT139	Introduction to Robotics	2	
DET125	Basic AutoCAD	3	
IET223	Computer Numerical Control	4	
EET120	DC Circuit Analysis	<u>4</u>	Pre-Co-MTH125
		13	or Pre-Co-MTH135
Third Semester			
EET227	PLCs and Industrial Controls I	3	EST230 or EET120
MST221	Mechanical Drive Components	3	
Technical Elective <sup>1</sup>		<u>2-4</u>	Check for prerequisites
		8-10	
	TOTAL CREDITS	30-32	

234

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>&</sup>lt;sup>1</sup>Technical Electives: AIT220, AIT221, AIT226, EET228

# Stark State COLLEGE

#### **ONE-YEAR CERTIFICATE**

### PREVENTIVE AND PREDICTIVE MAINTENANCE TECHNOLOGY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-

**2021 Catalog**Effective Summer 2020

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Engineering Technologies Division

Industrial Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST121	Blueprint Reading	2		
MST125	Basic Pumps	3		
MST126	Pipefitting Principles and Applications	3		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST221	Mechanical Drive Components	3		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
AIT134	Preventive and Predictive Maintenance	3	MST221 and MST125	
AIT222	Predictive Maintenance Analysis	2	AIT134	
	Total	26		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
MTH107	Industrial Math^	3	(MTH021 or Proficiency) <b>or</b> Pre-Co-MTH007	
	Total	7		
	TOTAL CREDIT HOURS	33		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Effective Summer 2020

#### **ONE-YEAR CERTIFICATE**

### PREVENTIVE AND PREDICTIVE MAINTENANCE TECHNOLOGY

5029

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisite
SSC101	Student Success Seminar^^	1	Take first semester
MST121	Blueprint Reading	2	
MST125	Basic Pumps	3	
MST221	Mechanical Drive Components	3	
MTH107	Industrial Math^	3	(MTH021 or Proficiency) <b>or</b> Pre-Co-MTH007
MST126	Pipefitting Principles and Applications	<u>3</u>	
		15	
Second Semester			
AIT134	Preventive and Predictive Maintenance	3	MST221 and MST125
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
EST230	Electrical Circuits and Devices ^	<u>4</u>	(MTH025 or Proficiency) <b>or</b> MTH107
		13	
Summer Semester			
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
AIT222	Predictive Maintenance Analysis	<u>2</u>	AIT134
		5	
	TOTAL CREDITS	33	

236

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester



#### ASSOCIATE OF APPLIED SCIENCE

### INDUSTRIAL PROCESS OPERATION TECHNOLOGY

2021 Catalog

Effective Summer 2020

4312



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
ARL234	Gas Compression and Flow Dynamics	3		
ARL239	Large Line Unit Compressor Assembly	3		
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
MTH107	Industrial Math^	3		
or MTH125	<b>or</b> College Algebra^ Ω	<b>or</b> 4	Check for prerequisites	
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121	Effective Speaking	3		
or COM122	or Interpersonal Communication	<b>or</b> 3		
or COM123	or Small Group Communication^	<b>or</b> 3	IDS102 or Proficiency	
MST121	Blueprint Reading	2	155102 of Honorency	
or	or	or		
DET125	Basic AutoCAD	3		
MST125	Basic Pumps	3		
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below <sup>1</sup>	3		
	Total	30-32		
	TOTAL CREDIT HOURS	60-62		

See footnotes on next page.

Effective Summer 2020

### INDUSTRIAL PROCESS OPERATION TECHNOLOGY

4312

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MST121	Blueprint Reading	2	
or	or	or	
DET125 MST134	Basic AutoCAD Hydraulic and Pneumatic Systems^	3 6	MTH022 <b>or</b> MTH023
11151151	Try drawne and I nearmane Systems	O .	or Proficiency
PET101	Introduction to the Petroleum Industry	3	
EST230	Electrical Circuits and Devices^	<u>4</u>	(MTH025 or Proficiency) or MTH107
		16-17	
Second Semester			
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
ARL234	Gas Compression and Flow Dynamics	3	
ARL239	Large Line Unit Compressor Assembly	3	
MST221	Mechanical Drive Components	<u>3</u>	
		14	
Third Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
CHM101	Introduction to Chemistry^ *	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
MTH107	Industrial Math^	3	
or	or	or	Check for prerequisites
MTH125 ENG124	College Algebra $^{\wedge}$ $\Omega$ College Composition $^{\wedge}$	4 3	Co-ENG024 or Co-ENG011 or Proficiency
EET228	PLCs and Industrial Controls II	3	EET227
DD1220	1 Les una mausurar controls r	<u>-</u> 16-17	201227
Fourth Semester		10-17	
MST125	Basic Pumps	3	
PET132	Petroleum Instrumentation	3	
COM121	Effective Speaking	3	
or	or	or	
COM122	Interpersonal Communication	3	
or	or	or	
COM123	Small Group Communication <sup>^</sup>	3	IDS102 or Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
Select one (1) Social from the list below <sup>1</sup>	& Behavioral Sciences or Arts & Humanities Elective	<u>3</u>	Check for prerequisites
		14	
	TOTAL CREDITS	60-62	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$ MTH125 should be taken by students planning to transfer to a four-year institution

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup>Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY121, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

## Stark State

#### **ONE-YEAR CERTIFICATE**

### INDUSTRIAL PROCESS OPERATION TECHNOLOGY

**2021 Catalog**Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
EET227	PLCs and Industrial Controls I	3	EET120 <b>or</b> EST230	
ARL234	Gas Compression and Flow Dynamics	3		
ARL239	Large Line Unit Compressor Assembly	3		
	Total	25		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ENV221	OSHA 40-Hour HAZWOPER	2		
MST121	Blueprint Reading	2		
or DET125	<b>or</b> Basic AutoCAD	or 3		
DETTES	Total	8-9		
	TOTAL CREDIT HOURS	33-34		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

**ONE-YEAR CERTIFICATE** 

### INDUSTRIAL PROCESS OPERATION TECHNOLOGY

4311

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ARL234	Gas Compression and Flow Dynamics	3	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
PET101	Introduction to the Petroleum Industry	3	•
EST230	Electrical Circuits and Devices <sup>^</sup>	<u>4</u>	(MTH025 or Proficiency) <b>or</b> MTH107
		17	
Second Semester			
ENV221	OSHA 40-Hour HAZWOPER	2	
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
PET132	Petroleum Instrumentation	3	
ARL239	Large Line Unit Compressor Assembly	3	
MST221	Mechanical Drive Components	3	
MST121	Blueprint Reading	2	
or	or	or	
DET125	Basic AutoCAD	3 <b>16-17</b>	
	TOTAL CREDITS	33-34	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

#### ASSOCIATE OF APPLIED SCIENCE

#### PETROLEUM INDUSTRIAL MECHANICS **TECHNOLOGY**

2021 Catalog

Effective Summer 2020

4313



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

#### Engineering Technologies Division

#### Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
AIT134	Preventive and Predictive Maintenance	3	MST221 and MST125	
MST127	Principles of Welding	3	Co-MST128	
MST128	Welding Laboratory	3	Co-MST127	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST125	Basic Pumps	3		
AIT124	Principles of Rigging	2		
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
CHM101	Introduction to Chemistry^ *	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107	
MTH107	Industrial Math^	3	Check for prerequisites	
or MTH125	or College Algebra $^{\wedge}$ Ω	<b>or</b> 4	7 1	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121	Effective Speaking	3		
or COM122	Interpersonal Communication	<b>or</b> 3		
or COM123	or Small Group Communication^	<b>or</b> 3	IDS102 or Proficiency	
MST121	Blueprint Reading	2	IDS102 of Fronteiency	
or	or	or		
DET125	Basic AutoCAD	3		
ARL234	Gas Compression and Flow Dynamics  Select one (1) Social and Behavioral Sciences elective or	3		
	Arts and Humanities elective <sup>1</sup>	3	Check for prerequisites	
	Total	30-32		
	TOTAL CREDIT HOURS	60-62		

<sup>^</sup>Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Social & Behavioral Sciences or Arts & Humantities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS221, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC123, SOC221, SOC225

Effective Summer 2020

#### PETROLEUM INDUSTRIAL MECHANICS **TECHNOLOGY**

4313

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ARL234	Gas Compression and Flow Dynamics	3	
PET101	Introduction to the Petroleum Industry	3	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
MST221	Mechanical Drive Components	<u>3</u>	
		16	
Second Semester			
MST125	Basic Pumps	3	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
AIT124	Principles of Rigging	2	
MST121	Blueprint Reading	2	
or	or	or	
DET125	Basic AutoCAD	3 14-15	
Third Semester		14-15	
PET132	Petroleum Instrumentation	3	
			3.50maa. 33.50maa.
AIT134	Preventive and Predictive Maintenance	3	MST221 and MST125
MTH107	Industrial Math^	3	Check for managinites
or MTH125	<b>or</b> College Algebra^ Ω	<b>or</b> 4	Check for prerequisites
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Laboratory	<u>3</u>	Co-MST127
		15-16	
Fourth Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
COM121	Effective Speaking	3	
or	or	or	
COM122	Interpersonal Communication	3	
or COM123	or Small Group Communication^	<b>or</b> 3	IDS102 or Proficiency
0020	Select one (1) Social and Behavioral	5	120102 01 1101101010
	Sciences elective or Arts and Humanities	<u>3</u>	Check for prerequisites
	elective <sup>1</sup>	15	
	TOTAL CREDITS	60-62	
. CCC -1			

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

ΩMTH125 should be taken by students planning to transfer to a four-year institution

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>1</sup>Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121,

PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225



# ONE-YEAR CERTIFICATE PETROLEUM INDUSTRIAL MECHANICS TECHNOLOGY

2021 Catalog

Effective Summer 2020

4310



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
AIT134	Preventive and Predictive Maintenance	3	MST221 and MST125	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST125	Basic Pumps	3		
ARL234	Gas Compression and Flow Dynamics	3		
	Total	21		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
AIT124	Principles of Rigging	2		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
MST121	Blueprint Reading	2		
or	or	or		
DET125	Basic AutoCAD	3		
	Total	12-13		
	TOTAL CREDIT HOURS	33-34		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

#### **ONE-YEAR CERTIFICATE**

### PETROLEUM INDUSTRIAL MECHANICS TECHNOLOGY

4310

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-Requisites
SSC101	Student Success Seminar^^	1	Take first semester
PET101	Introduction to the Petroleum Industry	3	
ARL234	Gas Compression and Flow Dynamics	3	
MST221	Mechanical Drive Components	3	
MST125	Basic Pumps	3	
EST230	Electrical Circuits and Devices^	<u>4</u>	(MTH025 or Proficiency) <b>or</b> MTH107
		17	
Second Semester			MENAGO MENAGO
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
MST121	Blueprint Reading	2	·
or DET125	or Basic AutoCAD	<b>or</b> 3	
DE1123	Basic AutoCAD	3	
AIT124	Principles of Rigging	2	
PET132	Petroleum Instrumentation	3	
AIT134	Preventive and Predictive Maintenance	<u>3</u>	MST221 and MST125
		16-17	
	TOTAL CREDITS	33-34	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester



#### ASSOCIATE OF APPLIED SCIENCE

#### **PETROLEUM TECHNOLOGY - PIPELINE TECHNICIAN MAJOR**

2021 Catalog Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
ARL234	Gas Compression and Flow Dynamics	3		
ARL239	Large Line Unit Compressor Assembly	3		
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
PET131	Corrosion Basics	3		
PET135	Measurement and Basic Pipeline Operations	3		
AIT134	Preventive and Predictive Maintenance	3	MST125 and MST221	
ENV121	Regulations and Compliance	3		
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
MTH107	Industrial Math^	3		
or MTH125	or College Algebra^Ω	<b>or</b> 4	Check for prerequisites	
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121	Effective Speaking	3		
or COM122	or Interpersonal Communication	or 3		
or	or	or		
COM123	Small Group Communication^	3	IDS102 or Proficiency	
MST121 or	Blueprint Reading or	2 <b>or</b>		
DET125	Basic AutoCAD	3		
MST125	Basic Pumps	3		
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	Total	30-32		
	TOTAL CREDIT HOURS	60-62		

See footnotes on next page.

Effective Summer 2020

### PETROLEUM TECHNOLOGY - PIPELINE TECHNICIAN MAJOR

4315

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MST221	Mechanical Drive Components	3	J
PET101	Introduction to the Petroleum Industry	3	
PET102	Introduction to Supervisory Control and Data	2	
	Acquisition (SCADA)		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or
			MTH107
MST121	Blueprint Reading	2	
or	or	or	
DET125	Basic AutoCAD	<u>3</u>	
		15-16	
Second Semester			
PET131	Corrosion Basics	3	
MST125	Basic Pumps	3	
PET135	Measurement and Basic Pipeline Operations	3	
ARL234	Gas Compression and Flow Dynamics	3	
ARL239	Large Line Unit Compressor Assembly	<u>3</u>	
		15	
Third Semester			
AIT 134	Preventive and Predictive Maintenance	3	MST125 and MST221
MTH107	Industrial Math^	3	
or	or	or	Check for prerequisites
MTH125	College Algebra <sup>^</sup> Ω	4	
ENV 121	Regulations and Compliance	3	G 533001 G 533011
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
CHM101	Introduction to Chemistry^▲	<u>4</u>	(MTH022 or MTH023 or Proficiency) or
		16-17	MTH105 or MTH107
Fourth Semester			
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
PET132	Petroleum Instrumentation	3	
COM121	Effective Speaking	3	
or	or	or	
COM122	Interpersonal Communication	3	
or	or	or	
COM123	Small Group Communication^	3	IDS102 or Proficiency
Select one (1) Social & I the list below <sup>1</sup>	Behavioral Sciences or Arts & Humanities Elective from	<u>3</u>	Check for prerequisites
		14	
	TOTAL CREDITS	60-62	

<sup>^</sup>Based on SSC placement scores

 $\Omega$ MTH125 should be taken by students planning to transfer to a four-year institution

<sup>^^</sup>To promote student success, this course should be taken in the first semester

ABecause of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup>Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225



#### **ONE-YEAR CERTIFICATE SHALENET PIPELINE TECHNICIAN**

2021 Catalog Effective Summer 2020

4314

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
ARL234	Gas Compression and Flow Dynamics	3		
ARL239	Large Line Unit Compressor Assembly	3		
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
PET131	Corrosion Basics	3		
PET135	Measurement and Basic Pipeline Operations	3		
MST125	Basic Pumps	3		
	Total	27		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
MST121	Blueprint Reading	2		
or	or	or		
DET125	Basic AutoCAD	3		
	Total	6-7		
	TOTAL CREDIT HOURS	33-34		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

Effective Summer 2020

### ONE-YEAR CERTIFICATE SHALENET PIPELINE TECHNICIAN

4314

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit	Pre- and Co-requisites
SSC101	Student Success Seminar^^	Hours 1	Take first semester
MST221	Mechanical Drive Components	3	
ARL234	Gas Compression and Flow Dynamics	3	
PET101	Introduction to the Petroleum Industry	3	
EST230	Electrical Circuits and Devices <sup>^</sup>	4	(MTH025 or Proficiency) or
ARL239	Large Line Unit Compressor Assembly	<u>3</u>	MTH107
		17	
Second Semester			
PET131	Corrosion Basics	3	
PET132	Petroleum Instrumentation	3	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
PET135	Measurement and Basic Pipeline Operations	3	
MST125	Basic Pumps	3	
MST121	Blueprint Reading	2	
or DET125	or Basic AutoCAD	or <u>3</u>	
		16-17	
	TOTAL CREDITS	33-34	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester



### ASSOCIATE OF APPLIED SCIENCE PETROLEUM TECHNOLOGY - PRODUCT

### PETROLEUM TECHNOLOGY - PRODUCTION TECHNICIAN MAJOR

Effective Summer 2020

4323

2021 Catalog

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
ARL234	Gas Compression and Flow Dynamics	3		
ARL239	Large Line Unit Compressor Assembly	3		
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
PET131	Corrosion Basics	3		
PET135	Measurement and Basic Pipeline Operations	3		
PET141	Production Operations	3		
PET142	Artificial Lift	3		
_	TOTAL	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
CHM101	Introduction to Chemistry^*	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
MTH107	Industrial Math^	3		
or MTH125	or College Algebra^ Ω	<b>or</b> 4	Check for prerequisites	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121	Effective Speaking	3		
or COM122	or	<b>or</b> 3		
or	Interpersonal Communication or	or		
COM123	Small Group Communication^	3	IDS102 or Proficiency	
MST121	Blueprint Reading	2		
or DET125	or Basic AutoCAD	<b>or</b> 3		
MST125	Basic Pumps	3		
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below <sup>1</sup>	3	Check for prerequisites	
	TOTAL	30-32		
	TOTAL CREDIT HOURS	60-62		

See footnotes on next page.

Effective Summer 2020

### PETROLEUM TECHNOLOGY - PRODUCTION TECHNICIAN MAJOR

4323

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MST221	Mechanical Drive Components	3	v
PET101	Introduction to the Petroleum Industry	3	
PET102	Introduction to Supervisory Control and Data	2	
121102	Acquisition (SCADA)	_	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
MST121	Blueprint Reading	2	MIHIU/
or	or	or	
DET125	Basic AutoCAD	<u>3</u>	
		15 <del>-</del> 16	
Second Semester			
PET131	Corrosion Basics	3	
ARL234	Gas Compression and Flow Dynamics	3	
PET135	Measurement and Basic Pipeline Operations	3	
PET141	Production Operations	3	
PET142	Artificial Lift		
PE1142	Artificial Lift	<u>3</u>	
Third Semester		15	
PET132	Petroleum Instrumentation	2	
		3	
ARL239	Large Line Unit Compressor Assembly	3	(MELLO22 MELLO22 D.C.;
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or
ENG124	Conege Composition	3	Proficiency
MTH107	Industrial Math^	3	1101010110
or	or	or	Check for prerequisites
MTH125	College Algebra^ Ω	<u>4</u>	
		16-17	
Fourth Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
MST125	Basic Pumps	3	
COM121	Effective Speaking	3	
or	or	or	
COM122	Interpersonal Communication	3	
or	or	or	TD 0400 D 01
COM123	Small Group Communication	3	IDS102 or Proficiency
from the list below <sup>1</sup>	& Behavioral Sciences or Arts & Humanities Elective	<u>3</u>	
from the tist below		14	
	TOTAL CREDITS	60-62	
ABasad on SSC placement		UV-U2	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

ΩMTH125 should be taken by students planning to transfer to a four-year institution

Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup>Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY121, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225



#### **ONE-YEAR CERTIFICATE PRODUCTION TECHNICIAN**

2021 Catalog Effective Summer 2020

4335

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST221	Mechanical Drive Components	3		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
ARL234	Gas Compression and Flow Dynamics	3		
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
PET131	Corrosion Basics	3		
PET132	Petroleum Instrumentation	3		
PET141	Production Operations	3		
PET142	Artificial Lift	3		
	Total	24		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ENV221	OSHA 40-Hour HAZWOPER	2		
MST121	Blueprint Reading	2		
or DET125	or Basic AutoCAD	<b>or</b> 3		
	Total	8-9		
	TOTAL CREDIT HOURS	32-33		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

2021 Catalog

Effective Summer 2020

### ONE-YEAR CERTIFICATE PRODUCTION TECHNICIAN

4335

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MST221	Mechanical Drive Components	3	
ARL234	Gas Compression and Flow Dynamics	3	
PET101	Introduction to the Petroleum Industry	3	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or
PET102	Introduction to Supervisory Control and	<u>2</u>	MTH107
	Data Acquisition (SCADA)	16	
Second Semester			
PET131	Corrosion Basics	3	
PET132	Petroleum Instrumentation	3	
PET141	Production Operations	3	
PET142	Artificial Lift	3	
ENV221	OSHA 40-Hour HAZWOPER	2	
MST121	Blueprint Reading	2	
or DET125	or Basic AutoCAD	or 3	
		16-17	
	TOTAL CREDITS	32-33	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester



#### ASSOCIATE OF APPLIED SCIENCE PETROLEUM TECHNOLOGY - INSTRUMENTATION

2021 Catalog Effective Summer 2020

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**ELECTRONICS TECHNICIAN MAJOR** The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3		
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
PET131	Corrosion Basics	3		
PET135	Measurement and Basic Pipeline Operations	3		
PET141	Production Operations	3		
PET142	Artificial Lift	3		
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ARL234	Gas Compression and Flow Dynamics	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107	
MTH107	Industrial Math^	3		
or	or	or	Check for prerequisites	
MTH125	College Algebra <sup>^</sup> Ω	4	Co-ENG024 or Co-ENG011 or	
ENG124	College Composition^	3	Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2	Troncicle	
COM121	Effective Speaking	3		
or	or	or		
COM122	Interpersonal Communication	3		
or COM123	or Small Group Communication^	<b>or</b> 3	IDS102 <b>or</b> Proficiency	
MST121	Blueprint Reading	2	1D3102 of 1 folicioncy	
or	or	or		
DET125	Basic AutoCAD	3		
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective <sup>1</sup>	3	Check for prerequisites	
	Total	30-32		
	TOTAL CREDIT HOURS	60-62		

See footnotes on last page

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Effective Summer 2020

### PETROLEUM TECHNOLOGY - INSTRUMENTATION ELECTRONICS TECHNICIAN MAJOR

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MST221	Mechanical Drive Components	3	
PET101	Introduction to the Petroleum Industry	3	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107
MST121	Blueprint Reading	2	
or	or	or	
DET125	Basic AutoCAD	<u>3</u>	
g 1g ,		15-16	
Second Semester		2	
ARL234	Gas Compression and Flow Dynamics	3	
PET131	Corrosion Basics	3	
PET135	Measurement and Basic Pipeline Operations	3	
PET141	Production Operations	3	
PET142	Artificial Lift	<u>3</u>	
		15	
Third Semester			
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107
MTH107	Industrial Math^	3	
or	or	or	Check for prerequisites
MTH125	College Algebra <sup>^</sup> Ω	4	G FNG024 G FNG011
ENG124	College Composition^	<u>3</u>	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
		16-17	
Fourth Semester			
EET228	PLCs and Industrial Controls II	3	EET227
PET132	Petroleum Instrumentation	3	
COM121	Effective Speaking	3	
0r	or	or	
COM122	Interpersonal Communication	3	
or COM123	Small Group Communication <sup>^</sup>	<b>or</b> 3	IDS102 or Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	125102 of Honelency
	Select one (1) Social & Behavioral Sciences or Arts &	<u>3</u>	Check for prerequisites
	Humanities Elective from the list below <sup>1</sup>	<u>2</u>	Check for prerequisites
	,	14	
	TOTAL CREDITS	60-62	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$ MTH125 should be taken by students planning to transfer to a four-year institution

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites. ¹Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

# Stark State COLLEGE

#### **ONE-YEAR CERTIFICATE**

## PETROLEUM INSTRUMENTATION AND ELECTRONICS TECHNICIAN

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

**2021 Catalog**Effective Summer 2020

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Engineering Technologies Division

Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST221	Mechanical Drive Components	3		
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
ARL234	Gas Compression and Flow Dynamics	3		
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
PET132	Petroleum Instrumentation	3		
PET141	Production Operations	3		
PET142	Artificial Lift	3		
MST121	Blueprint Reading	2		
or DET125	or Basic AutoCAD	<b>or</b> 3		
DH1123	Total	26-27		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ENV221	OSHA 40-Hour HAZWOPER	2		
	Total	6		
	TOTAL CREDIT HOURS	32-33		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

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**ONE-YEAR CERTIFICATE** 

### PETROLEUM INSTRUMENTATION AND ELECTRONICS TECHNICIAN

4325

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MST221	Mechanical Drive Components	3	
ARL234	Gas Compression and Flow Dynamics	3	
PET101	Introduction to the Petroleum Industry	3	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or
PET102	Introduction to Supervisory Control and Data	<u>2</u>	MTH107
	Acquisition (SCADA)	16	
Second Semester			
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
PET132	Petroleum Instrumentation	3	
MST121	Blueprint Reading	2	
or DET125	or Basic AutoCAD	<b>or</b> 3	
PET141	Production Operations	3	
PET142	Artificial Lift	3	
ENV221	OSHA 40-Hour HAZWOPER	<u>2</u>	
		16-17	
	TOTAL CREDITS	32-33	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester



#### MY ACADEMIC PLAN

#### ASSOCIATE OF APPLIED SCIENCE

### PETROLEUM TECHNOLOGY - MEASUREMENT & MECHATRONICS TECHNICIAN MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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#### Engineering Technologies Division

#### Oil and Gas Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PET132	Petroleum Instrumentation	3		
MST221	Mechanical Drive Components	3		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
PET210	Petroleum Process Controls	3		
EET227	PLCs and Industrial Controls I	3	EET120 or EST230	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
PET131	Corrosion Basics	3		
PET135	Measurement and Basic Pipeline Operations	3		
PET141	Production Operations	3		
PET230 or ETD224	Petroleum Measurement Capstone or Engineering Co-op	3 <b>or</b> 4	PET102, PET131, PET135, Pre- Co-PET141, Pre-Co-PET210	
	Total	30-31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PET101	Introduction to the Petroleum Industry	3		
ARL234	Gas Compression and Flow Dynamics	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
CHM101	Introduction to Chemistry^ ▲	4	(MTH022 or MTH023 or Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
MTH107	Industrial Math^	3		
or	or	or	Check for prerequisites	
MTH125 ENG124	College Algebra <sup>^</sup> Ω College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2	Tronciency	
COM121	Effective Speaking	3		
or	or	or		
COM122	Interpersonal Communication	3		
or COM123	or Small Group Communication^	<b>or</b> 3	IDS102 or Proficiency	
MST121	Blueprint Reading	2	125102 of Fronteiency	
or	or	or		
DET125	Basic AutoCAD	3		
Select one (1) Social Elective from the list		3	Check for prerequisites	
	Total	30-32		
	TOTAL CREDIT HOURS	60-63		

See footnotes on next page.

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Effective Summer 2020

#### **PETROLEUM TECHNOLOGY - MEASUREMENT & MECHATRONICS TECHNICIAN MAJOR**

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#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
PET101	Introduction to the Petroleum Industry	3	
ARL234	Gas Compression and Flow Dynamics	3	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107
ITD122	Computer Applications for Professionals <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		17	·
Second Semester			
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
PET131	Corrosion Basics	3	
PET135	Measurement and Basic Pipeline Operations	3	
PET141	Production Operations	3	
PET210	Petroleum Process Controls	<u>3</u>	
		14	
Third Semester			
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
PET132	Petroleum Instrumentation	3	
MST221	Mechanical Drive Components	3	
MST121	Blueprint Reading	2	
or	or	or	
DET125	Basic AutoCAD	3	
PET230	Petroleum Measurement Capstone	3	PET102, PET131, PET135, Pre-Co-
or	or 5	or	PET141, Pre-Co-PET210
ETD224	Engineering Co-op	<u>4</u>	,
Eth Ct		14-16	
Fourth Semester	In the second 1 M sets A	2	
MTH107 or	Industrial Math^	3 <b>or</b>	Check for prerequisites
MTH125	College Algebra <sup>^</sup> Ω	4	Check for prerequisites
	č č		(MTH022 or MTH023 or Proficiency) or
CHM101	Introduction to Chemistry^▲	4	MTH105 or MTH107
COM121	Effective Speaking	3	
or	or	or	
COM122	Interpersonal Communication	3	
or COM123	or Small Group Communication^	<b>or</b> 3	IDC102 D f
ENV221	OSHA 40-Hour HAZWOPER	2	IDS102 or Proficiency
Select one (1) Social & B below <sup>1</sup>	ehavioral Sciences or Arts & Humanities Elective from the list	<u>3</u>	Check for prerequisites
		15-16	
	TOTAL CREDITS	60-63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

ΩMTH125 should be taken by students planning to transfer to a four-year institution

Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the

courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended),PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

## Stark State COLLEGE

## CAREER ENHANCEMENT CERTIFICATE AUTOMOTIVE AFTERMARKET VEHICLE MODIFICATIONS

2021 Catalog

Effective Summer 2020

2259

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Stark State College Automotive Aftermarket Vehicle Modifications Career Enhancement Certificate courses are designed to prepare the student for the fast-growing area of vehicle modifications using aftermarket components and procedures. Students will practice new technical skills while being introduced to the business side of the aftermarket industry. Upon completion of the classes listed below, students will be prepared to work at a new or used car dealership's accessories department, work at an independent or franchised aftermarket shop, or possibly start their own aftermarket vehicle modifications business.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT121	Automotive Technical Skills	2		
AUT123	Engine Diagnosis and Major Service	4	AUT121	
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT254	Automotive Aftermarket Vehicle Interior Modifications	3	AUT125	
AUT255	Automotive Aftermarket Vehicle Exterior Modifications	3	AUT125	
AUT256	Automotive Aftermarket Vehicle Powertrain Modifications	3	AUT123	
AUT257	Automotive Aftermarket Vehicle Chassis Modifications	3	AUT124	
	TOTAL CREDIT HOURS	26		

#### 2021 Catalog

Effective Summer 2020

## CAREER ENHANCEMENT CERTIFICATE **AUTOMOTIVE AFTERMARKET VEHICLE**

2259

### AUTOMOTIVE AFTERMARKET VEHICLE MODIFICATIONS

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AUT121	Automotive Technical Skills	2	
AUT123	Engine Diagnosis and Major Service	<u>4</u>	AUT121
		6	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	<u>4</u>	AUT121
		8	
Third Semester			
AUT254	Automotive Aftermarket Vehicle Interior Modifications	3	AUT125
AUT255	Automotive Aftermarket Vehicle Exterior Modifications	3	AUT125
AUT256	Automotive Aftermarket Vehicle Powertrain Modifications	3	AUT123
AUT257	Automotive Aftermarket Vehicle Chassis Modifications	<u>3</u>	AUT124
		12	
	TOTAL CREDITS	26	



#### CAREER ENHANCEMENT CERTIFICATE **AUTOMOTIVE DETAILING**

2021 Catalog Effective Summer 2020

2260

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Stark State College Automotive Detailing Career Enhancement Certificate courses are designed to prepare the student to become a professional automotive detail technician. These courses can be selected as electives to the automotive technology associate degree program (2250) or as a stand-alone Career Enhancement Certificate.

The curriculum is a blend of classroom theory and extensive hands-on lab assignments that follow the International Detailing Association (IDA) guidelines. Successful completion of these courses will prepare the student to be an industry certificated (IDA) automotive detailing technician. Successful completion can also lead to employment opportunities in automotive dealership detailing departments, independent detailing companies, or franchised detailing companies. Students should be able to even start their own detailing business.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT130	Automotive Safety and Shop Standards	2		
AUT131	Automotive Detailing Business Practices	2		
AUT132	Automotive Exterior Detailing	3		
AUT133	Automotive Interior Detailing	2	AUT132	
AUT134	Automotive Under-Hood and Under-Car Detailing	2	AUT132	
AUT135	Advanced Automotive Detailing Techniques	3	AUT132	
AUT136	Practical Automotive Detailing Applications	2	AUT132	
	TOTAL CREDIT HOURS	16		

Effective Summer 2020

### CAREER ENHANCEMENT CERTIFICATE AUTOMOTIVE DETAILING

2260

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AUT130	Automotive Safety and Shop Standards	2	
AUT131	Automotive Detailing Business Practices	2	
AUT132	Automotive Exterior Detailing	<u>3</u>	
		7	
Second Semester			
AUT133	Automotive Interior Detailing	2	AUT132
AUT134	Automotive Under-Hood and Under-Car Detailing	<u>2</u>	AUT132
		4	
Third Semester			
AUT135	Advanced Automotive Detailing Techniques	3	AUT132
AUT136	Practical Automotive Detailing Applications	<u>2</u>	AUT132
		5	
	TOTAL CREDITS	16	

## Stark State COLLEGE WARP

#### CAREER ENHANCEMENT CERTIFICATE

## AUTOMOTIVE MAINTENANCE AND LIGHT REPAIR

2021 Catalog

Effective Summer 2020

2261

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Stark State College Automotive Maintenance and Light Repair Career Enhancement Certificate quickly prepares the student to enter the job market at an automotive service facility. In our state-of-the-art automotive facility, students will use the latest tools and equipment to apply practical service techniques to our fleet of late-model vehicles. This builds hands-on skills that can be applied immediately upon completion.

The curriculum is accredited by the National Automotive Technicians Education Foundation (NATEF) preparing students to pursue Automotive Service Excellence (ASE) certification.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT121	Automotive Technical Skills	2		
AUT122	Automotive Systems and Engine Technology	4	AUT121	
AUT123	Engine Diagnosis and Major Service	4	AUT121	
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT126	Automotive HVAC Systems	2	AUT121	
	TOTAL CREDIT HOURS	20		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AUT121	Automotive Technical Skills	2	
AUT122	Automotive Systems and Engine Technology	4	AUT121
AUT123	Engine Diagnosis and Major Service	<u>4</u>	AUT121
		10	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT126	Automotive HVAC Systems	<u>2</u>	AUT121
		10	
	TOTAL CREDITS	20	

# Stark State COLLEGE MY ACADEMIC PLAN

## CAREER ENHANCEMENT CERTIFICATE AUTOMOTIVE TRANSMISSION AND DRIVELINE

2021 Catalog

Effective Summer 2020

2262

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Stark State College Automotive Transmission and Driveline Career Enhancement Certificate prepares the student for a productive career as an automotive transmission and driveline specialist. In our two state-of-the-art automotive facilities, students use the latest tools and diagnostic equipment to apply practical service techniques to our fleet of late-model vehicles. This builds hands-on skills that can be applied immediately upon graduation.

The curriculum is accredited by the National Automotive Technicians Education Foundation (NATEF) preparing students to pursue Automotive Service Excellence (ASE) certification.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT121	Automotive Technical Skills	2		
AUT122	Automotive Systems and Engine Technology	4	AUT121	
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT223	Advanced Automotive Electronics	3	AUT125	
AUT225	Automotive Drivetrain 1	3	AUT121	
AUT226	Automotive Drivetrain 2	3	AUT121	
AUT227	Computerized Vehicle Control	3	AUT125	
	TOTAL CREDIT HOURS	26		

Effective Summer 2020

### CAREER ENHANCEMENT CERTIFICATE **AUTOMOTIVE TRANSMISSION AND DRIVELINE**

2262

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AUT121	Automotive Technical Skills	2	
AUT122	Automotive Systems and Engine Technology	<u>4</u>	AUT121
		6	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	<u>4</u>	AUT121
		8	
Third Semester			
AUT223	Advanced Automotive Electronics	3	AUT125
AUT225	Automotive Drivetrain 1	3	AUT121
AUT226	Automotive Drivetrain 2	3	AUT121
AUT227	Computerized Vehicle Control	<u>3</u>	AUT125
		12	
	TOTAL CREDITS	26	



## CAT LIFT TRUCK

2021 Catalog

Effective Summer 2020

2263

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The CAT Lift Truck (CLT) Career Enhancement Certification is designed exclusively for the student who is seeking a career as a service technician at a Caterpillar Lift Truck dealership. The Caterpillar-specific curriculum is produced by MCFA. It prepares the student for a career as a Caterpillar Lift Truck Technician by providing Caterpillar Lift Truck's core certification courses that are needed for advancement at a CAT Lift Truck dealership.

The CLT curriculum is a blend of classroom theory and hands-on lab assignments. The curriculum follows OSHA and Industrial Truck Association (ITA) guidelines. CLT-specific classes are scheduled to run on selected Fridays throughout each semester, including the summer, and are a full day in length.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT121	Automotive Technical Skills	2		
AUT123	Engine Diagnosis and Major Service	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT181	Introduction to CAT Lift Trucks	1	AUT121	
AUT182	CAT Operator Safety Training	1	AUT181	
AUT183	CAT Service Information System	1	AUT181	
AUT184	CAT Hydraulic Systems	1	AUT121	
AUT185	CAT Internal Combustion Engine	2	AUT123	
AUT186	CAT Masts and Lift Mechanisms	1	AUT121	
AUT187	CAT Electrical Systems	3	AUT125	
AUT188	CAT Steering Systems	1	AUT121	
AUT189	CAT Braking Systems	1	AUT121	
AUT281	CAT Differentials and Front Axles	1	AUT121	
AUT282	CAT Transmissions	2	AUT121	
AUT283	CAT Fuel Systems (LP, Gasoline)	2	AUT123	
	TOTAL CREDIT HOURS	27		

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Effective Summer 2020

### CAREER ENHANCEMENT CERTIFICATE CAT LIFT TRUCK

2263

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AUT121	Automotive Technical Skills	2	
AUT123	Engine Diagnosis and Major Service	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	<u>4</u>	AUT121
		10	
Second Semester			
AUT181	Introduction to CAT Lift Trucks	1	AUT121
AUT182	CAT Operator Safety Training	1	AUT181
AUT183	CAT Service Information System	1	AUT181
AUT184	CAT Hydraulic Systems	1	AUT121
AUT185	CAT Internal Combustion Engine	<u>2</u>	AUT123
		6	
Third Semester			
AUT186	CAT Masts and Lift Mechanisms	1	AUT121
AUT187	CAT Electrical Systems	3	AUT125
AUT188	CAT Steering Systems	1	AUT121
AUT189	CAT Braking Systems	<u>1</u>	AUT121
		6	
Fourth Semester			
AUT281	CAT Differentials and Front Axles	1	AUT121
AUT282	CAT Transmissions	2	AUT121
AUT283	CAT Fuel Systems (LP, Gasoline)	<u>2</u>	AUT123
		5	
	TOTAL CREDITS	27	



## CAREER ENHANCEMENT CERTIFICATE HONDA PACT

2021 Catalog

Effective Summer 2020

2264

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Honda PACT Career Enhancement Certificate is designed exclusively for the student who is seeking a career as a service technician at a Honda/Acura dealership. The Honda PACT curriculum combines Stark State College NATEF-accredited automotive classes and Honda-specific curriculum that is produced by American Honda Motor Company, Inc. The Honda-specific classes provide Honda's core certification modules that are needed for advancement at a Honda/Acura dealership.

The Honda PACT classes are a blend of classroom theory and hands-on lab assignments. The Honda PACT classes are scheduled to run on selected Fridays throughout the semester, including the summer, and are a full day in length.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT121	Automotive Technical Skills	2		
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT221	Fuel and Emissions Management Systems	3	AUT125	
AUT222	Engine System Performance Diagnosis	3	AUT125	
AUT171	Introduction To Honda PACT	1	AUT121	
AUT172	Honda Engine Mechanical	2	AUT121	
AUT173	Honda Steering and Suspension	1	AUT124	
AUT174	Honda Braking Systems	1	AUT124	
AUT175	Honda Electrical Systems	2	AUT125	
AUT176	Honda HVAC Systems	1	AUT125	
AUT277	Honda Computerized Engine	2	AUT222	
AUT271	Honda Fuel and Emission System	1	AUT221	
AUT275	Honda Manual Transmissions	1	AUT121	
AUT276	Honda Automatic Transmissions	1	AUT121	
	TOTAL CREDIT HOURS	29		

Effective Summer 2020

### CAREER ENHANCEMENT CERTIFICATE HONDA PACT

2264

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AUT121	Automotive Technical Skills	2	
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT171	Introduction to Honda PACT	1	AUT121
AUT172	Honda Engine Mechanical	<u>2</u>	AUT121
		13	
Second Semester			
AUT221	Fuel and Emission Management Systems	3	AUT125
AUT222	Engine System Performance Diagnosis	3	AUT125
AUT173	Honda Steering and Suspension	1	AUT124
AUT174	Honda Braking Systems	1	AUT124
AUT175	Honda Electrical Systems	2	AUT125
AUT176	Honda HVAC Systems	<u>1</u>	AUT125
		11	
Third Semester			
AUT277	Honda Computerized Engine	2	AUT222
AUT271	Honda Fuel and Emission System	1	AUT221
AUT275	Honda Manual Transmissions	1	AUT121
AUT276	Honda Automatic Transmissions	<u>1</u>	AUT121
		5	
	TOTAL CREDITS	29	

## Stark State COLLEGE MY ACADEMIC PLAN

## CAREER ENHANCEMENT CERTIFICATE TOYOTA T-TEN

2021 Catalog

Effective Summer 2020

2265

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28

Engineering Technologies Division

Automotive and Transportation Department

The T-TEN Career Enhancement Certificate is designed exclusively for the student who is seeking a career as a service technician at a Toyota/Lexus dealership. The T-TEN curriculum combines Stark State College NATEF-accredited automotive classes and Toyota-specific curriculum that is produced by the University of Toyota. The Toyota-specific classes provide Toyota's core certification modules that are needed for advancement at a Toyota/Lexus dealership.

The T-TEN curriculum is a blend of classroom theory and hands-on lab assignments. The curriculum follows both the ASE and NATEF guidelines. This allows the student to pursue ASE certification.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT121	Automotive Technical Skills	2		
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT126	Automotive HVAC Systems	2	AUT121	
AUT221	Fuel and Emissions Management Systems	3	AUT125	
AUT222	Engine System Performance Diagnosis	3	AUT125	
AUT141	Steering, Suspension, and Braking Operations	2	AUT124	
AUT142	Auto Electrical Systems	2	AUT125	
AUT143	Heating Ventilation and Air Conditioning for Light Vehicles	1	AUT126	
AUT225	Automotive Drivetrain 1	3	AUT121	
AUT226	Automotive Drivetrain 2	3	AUT121	
AUT253	Computerized Engine Control Systems	2	AUT222	
	TOTAL CREDIT HOURS	31		

Effective Summer 2020

### CAREER ENHANCEMENT CERTIFICATE TOYOTA T-TEN

2265

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AUT121	Automotive Technical Skills	2	
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	<u>4</u>	AUT121
		10	
Second Semester			
AUT126	Automotive HVAC Systems	2	AUT121
AUT142	Auto Electrical Systems	2	AUT125
AUT221	Fuel and Emissions Management Systems	3	AUT125
AUT222	Engine Systems Performance Diagnosis	<u>3</u>	AUT125
		10	
Third Semester			
AUT141	Steering, Suspension, and Braking Operations	2	AUT124
AUT143	Heating Ventilation and Air Conditioning for Light Vehicles	1	AUT126
AUT225	Automotive Drivetrain 1	3	AUT121
AUT226	Automotive Drivetrain 2	3	AUT121
AUT253	Computerized Engine Control Systems	<u>2</u>	AUT222
		11	
	TOTAL CREDITS	31	

## Stark State COLLEGE MY ACADEMIC PLAN

## TOYOTA T-TEN - ELECTRICAL, MANUAL TRANSMISSION, HVAC

2021 Catalog

Effective Summer 2020

2266

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Toyota T-TEN Regional program is designed to prepare students to become technicians at Toyota and Lexus dealerships. Certified Toyota T-TEN instructors will provide students with access to Toyota vehicle technology through curriculum designed by the University of Toyota and accredited by the National Automotive Technicians Educational Foundation (NATEF). Students successfully completing the Toyota T-TEN Regional Program Electrical, Manual Transmission, and HVAC Career Enhancement Certificate from Stark State College will be prepared to take three ASE (Automotive Service Excellence) Certification Tests (A-3, A-6, and A-7). The program structure also allows ample time for students to attend classes at Stark State College while working at an approved Toyota or Lexus dealership.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
TOY101	Introduction to Toyota T-TEN	3		
TOY102	Toyota Electrical Systems I	5	TOY101	
TOY201	Toyota Electrical Systems II	5	TOY102	
TOY106	Toyota Manual Transmissions and Drivetrains	5	TOY102	
TOY203	Toyota HVAC Systems	5	TOY201	
AUT193	Automotive CO-OP 3	2		
AUT194	Automotive CO-OP 4	2		
	TOTAL CREDIT HOURS	27		

#### 2021 Catalog

Effective Summer 2020

#### CAREER ENHANCEMENT CERTIFICATE

## TOYOTA T-TEN - ELECTRICAL, MANUAL TRANSMISSION, HVAC

2266

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
TOY101	Introduction to Toyota T-TEN	3	
TOY102	Toyota Electrical Systems I	<u>5</u>	TOY101
		8	
Second Semester			
TOY201	Toyota Electrical Systems II	<u>5</u>	TOY102
		5	
Third Semester			
TOY106	Toyota Manual Transmissions and Drivetrains	<u>5</u>	TOY102
		5	
Fourth Semester			
TOY203	Toyota HVAC Systems	5	TOY201
AUT193	Automotive CO-OP 3	<u>2</u>	
		7	
Fifth Semester			
AUT194	Automotive CO-OP 4	<u>2</u>	
		2	
	TOTAL CREDITS	27	

# Stark State COLLEGE MY ACADEMIC PLAN

#### CAREER ENHANCEMENT CERTIFICATE

## TOYOTA T-TEN - ENGINE REPAIR, ENGINE CONTROL, AUTOMATIC TRANSMISSION

changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

**2021 Catalog**Effective Summer 2020

2267

The catalog in force is assigned to students based on the academic year they first applied to the college, and

Engineering Technologies Division

Automotive and Transportation Department

The Toyota T-TEN Regional program is designed to prepare students to become technicians at Toyota and Lexus dealerships. Certified Toyota T-TEN instructors will provide students with access to Toyota vehicle technology through curriculum designed by the University of Toyota and accredited by the National Automotive Technicians Educational Foundation (NATEF). Students successfully completing the Toyota T-TEN Regional Program Engine Repair, Engine Control, and Automatic Transmission Career Enhancement Certificate from Stark State College will be prepared to take three ASE (Automotive Service Excellence) Certification Tests (A-1, A-2, and A-8). The program structure also allows ample time for students to attend classes at Stark State College while working at an approved Toyota or Lexus dealership.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
TOY101	Introduction to Toyota T-TEN	3		
TOY102	Toyota Electrical Systems I	5	TOY101	
TOY104	Toyota Engine Diagnosis and Repair	5	TOY101	
TOY105	Toyota Engine Controls I	5	TOY104	
TOY204	Toyota Engine Controls II	5	TOY105	
TOY205	Toyota Automatic Transmissions	5	TOY204	
	TOTAL CREDIT HOURS	28		

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#### 2021 Catalog

Effective Summer 2020

#### CAREER ENHANCEMENT CERTIFICATE

## TOYOTA T-TEN - ENGINE REPAIR, ENGINE CONTROL, AUTOMATIC TRANSMISSION

2267

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
TOY101	Introduction to Toyota T-TEN	3	
TOY102	Toyota Electrical Systems I	<u>5</u>	TOY101
		8	
Second Semester			
TOY104	Toyota Engine Diagnosis and Repair	<u>5</u>	TOY101
		5	
Third Semester			
TOY105	Toyota Engine Controls I	<u>5</u>	TOY104
		5	
Fourth Semester			
TOY204	Toyota Engine Controls II	5	TOY105
TOY205	Toyota Automatic Transmissions	<u>5</u>	TOY204
		10	
	TOTAL CREDITS	28	

## Stark State COLLEGE MY ACADEMIC PLAN

## CAREER ENHANCEMENT CERTIFICATE TOYOTA T-TEN – ELECTRICAL, BRAKES, STEERING AND SUSPENSION

2021 Catalog

Effective Summer 2020

2268

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Automotive and Transportation Department

The Toyota T-TEN Regional program is designed to prepare students to become technicians at Toyota and Lexus dealerships. Certified Toyota T-TEN instructors will provide students with access to Toyota vehicle technology through curriculum designed by the University of Toyota and accredited by the National Automotive Technicians Educational Foundation (NATEF). Students successfully completing the Toyota T-TEN Regional Program Electrical, Brakes, Steering and Suspension Career Enhancement Certificate will be prepared to take three ASE (Automotive Service Excellence) Certification Tests (A-4, A-5, and A-6). The program structure also allows ample time for students to attend classes at Stark State College while working at an approved Toyota or Lexus dealership.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
TOY101	Introduction to Toyota T-TEN	3		
TOY102	Toyota Electrical Systems I	5	TOY101	
TOY103	Toyota Steering, Suspension, and Handling	5	TOY102	
TOY201	Toyota Electrical Systems II	5	TOY102	
TOY202	Toyota Automotive Braking Systems	5	TOY201	
AUT191	Automotive CO-OP 1	2		
AUT192	Automotive CO-OP 2	2		
	TOTAL CREDIT HOURS	27		

#### 2021 Catalog

Effective Summer 2020

#### CAREER ENHANCEMENT CERTIFICATE

### TOYOTA T-TEN - ELECTRICAL, BRAKES, STEERING AND SUSPENSION

2268

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
TOY101	Introduction to Toyota T-TEN	3	
TOY102	Toyota Electrical Systems I	5	TOY101
TOY103	Toyota Steering, Suspension, and Handling	5	TOY102
AUT191	Automotive CO-OP 1	<u>2</u>	
		15	
Second Semester			
TOY201	Toyota Electrical Systems II	5	TOY102
TOY202	Toyota Automotive Braking Systems	5	TOY201
AUT192	Automotive CO-OP 2	<u>2</u>	
		12	
	TOTAL CREDITS	27	



#### CAREER ENHANCEMENT CERTIFICATE

## MECHANICAL ENGINEERING TECHNOLOGY - DESIGN MAJOR - ADVANCED CAD

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

**2021 Catalog**Effective Summer 2020

4003

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
DET125	Basic AutoCAD	3		
DET132	SolidWorks with 3D Printing and Scanning	3	DET125	
DET126	Customizing AutoCAD	3	DET125	
DET131	Pro/ENGINEER (Creo Parametric)	3	DET125	
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125	
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
DET125	Basic AutoCAD	<u>3</u>	
		4	
Second Semester			
DET132	SolidWorks with 3D Printing and Scanning	3	DET125
DET126	Customizing AutoCAD	3	DET125
DET131	Pro/ENGINEER (Creo Parametric)	3	DET125
DET230	AutoCAD Inventor with 3D Printing and Scanning	<u>3</u>	DET125
		12	
	TOTAL CREDITS	16	

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

# Stark State COLLEGE

#### CAREER ENHANCEMENT CERTIFICATE

## MECHANICAL ENGINEERING TECHNOLOGY - DESIGN MAJOR - AUTOCAD

Effective Summer 2020

2021 Catalog

4004

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DET125	Basic AutoCAD	3		
DET126	Customizing AutoCAD	3	DET125	
DET230	AutoCAD Inventor with 3D Printing and Scanning	3	DET125	
	TOTAL CREDIT HOURS	9		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
DET125	Basic AutoCAD	$\frac{3}{3}$	
Second Semester		C	
DET126	Customizing AutoCAD	3	DET125
DET230	AutoCAD Inventor with 3D Printing and Scanning	<u>3</u>	DET125
		6	
	TOTAL CREDITS	9	



#### **CAREER ENHANCEMENT CERTIFICATE**

## MECHANICAL ENGINEERING TECHNOLOGY - DESIGN MAJOR

#### PRECISION GAUGING AND INSPECTION

4005

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DET121	Engineering Drawing	3		
DET124	Working Drawings	3	DET121 and Co-DET125	
DET125	Basic AutoCAD	3		
DET226	Geometric Dimensioning and Tolerancing	2	DET124	
IET270	Dimensional Metrology and Inspection I <sup>^</sup>	3	(MTH025 or Proficiency) or MTH107	
	TOTAL CREDIT HOURS	14		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
DET121	Engineering Drawing	3	
IET270	Dimensional Metrology and Inspection I <sup>^</sup>	<u>3</u>	(MTH025 or Proficiency) <b>or</b> MTH107
		6	
Second Semester			
DET124	Working Drawings	3	DET121 and Co-DET125
DET125	Basic AutoCAD	<u>3</u>	
		6	
Third Semester			
DET226	Geometric Dimensioning and Tolerancing	<u>2</u>	DET124
		2	
	TOTAL CREDITS	14	
	TOTAL CREDITS	14	

<sup>^</sup>Based on SSC placement scores



## CAREER ENHANCEMENT CERTIFICATE MECHANICAL ENGINEERING TECHNOLOGY FUEL CELL

2021 Catalog

Effective Summer 2020

4055

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MET229	Introduction to Alternative and Renewable Energy/Fuel Cells	3		
MET230	Analysis and Applications of Types of Fuel Cells	3	MET229	
MET231	Fuel Cell Systems	3	MET230	
MET232	Fuel Cell Project	3	MET231	
	TOTAL CREDIT HOURS	12		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester MET229	Introduction to Alternative and Renewable Energy/Fuel Cells	Credit Hours 3	Pre- and Co-requisites
Second Semester MET230	Analysis and Applications of Types of Fuel Cells	3	MET229
Third Semester MET231	Fuel Cell Systems	3	MET230
Fourth Semester MET232	Fuel Cell Project	3	MET231
	TOTAL CREDITS	12	

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#### **CAREER ENHANCEMENT CERTIFICATE MECHANICAL ENGINEERING TECHNOLOGY -**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog Effective Summer 2020

4056

**MACHINE DESIGN** 

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MET221	Advanced Strength of Materials	2	MET124	
MET226	Technical Project – Mechanical and Design	2	Pre-Co-MET228 and Pre-Co-DET125	
MET228	Machine Design	4	MET124	
	TOTAL CREDIT HOURS	8		

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
MET221	Advanced Strength of Materials	2	MET124
MET226	Technical Project – Mechanical and Design	2	Pre-Co-MET228 and Pre-Co-DET125
MET228	Machine Design	<u>4</u>	MET124
	TOTAL CREDITS	8	

282



#### CAREER ENHANCEMENT CERTIFICATE

## MECHANICAL ENGINEERING TECHNOLOGY MECHANICAL POWER

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

4057

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
MET222	Fluid Power	4	MET124	
MET228	Machine Design	4	MET124	
	TOTAL CREDIT HOURS	12		

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

	TOTAL CREDITS	12	
MET228	Machine Design	<u>4</u>	MET124
MET222	Fluid Power	4	MET124
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
<u>First Semester</u>		Credit Hours	Pre- and Co-requisites

283

<sup>^</sup>Based on SSC placement scores



#### CAREER ENHANCEMENT CERTIFICATE

## CIVIL ENGINEERING TECHNOLOGY - ARCHITECTURAL DRAFTING

2021 Catalog

Effective Summer 2020

4206

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CET121	Building Materials and Construction Methods	3		
CET122	Architectural Drafting I	3		
CET123	Architectural Drafting II	3	Co-CET121 and CET122	
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 and CET122	
DET125	Basic AutoCAD	3		
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CET122	Architectural Drafting I	3	
DET125	Basic AutoCAD	<u>3</u>	
		7	
Second Semester			
CET121	<b>Building Materials and Construction Methods</b>	3	
CET123	Architectural Drafting II	<u>3</u>	Co-CET121 and CET122
		6	
Third Semester			
CET234	Architectural CAD (REVIT 3D – BIM)	<u>3</u>	CET121 and CET122
		3	
	TOTAL CREDITS	16	

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 $<sup>^{\</sup>wedge\wedge} To$  promote student success, this course should be taken in the first semester

# Stark State COLLEGE

#### CAREER ENHANCEMENT CERTIFICATE

## CIVIL ENGINEERING TECHNOLOGY - CIVIL/SURVEYING

2021 Catalog

Effective Summer 2020

4207

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET227	Surveying I	3	MTH125 or MTH135	
CET228	Surveying II	3	CET227	
CET236	Global Positioning System	3	CET227	
	TOTAL CREDIT HOURS	9		

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
CET227	Surveying I	3 3	MTH125 <b>or</b> MTH135
Second Semester		-	
CET228	Surveying II	3	CET227
CET236	Global Positioning System	<u>3</u> 6	CET227
	TOTAL CREDITS	9	

# Stark State COLLEGE

#### **CAREER ENHANCEMENT CERTIFICATE**

## CIVIL ENGINEERING TECHNOLOGY - CIVIL/SURVEYING DRAFTING

2021 Catalog

Effective Summer 2020

4208

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET121	Building Materials and Construction Methods	3		
CET237	Interpreting Construction Documents	3		
DET125	Basic AutoCAD	3		
	TOTAL CREDIT HOURS	9		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
CET121	Building Materials and Construction Methods	3	
CET237	Interpreting Construction Documents	3	
DET125	Basic AutoCAD	<u>3</u>	
	TOTAL CREDITS	9	

# Stark State COLLEGE WY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE CIVIL ENGINEERING TECHNOLOGY CONSTRUCTION MATERIALS INSPECTION

2021 Catalog

Effective Summer 2020

4209

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET121	Building Materials and Construction Methods	3		
CET125	Soil Mechanics	3	(MTH125 or MTH135) and MET124	
CET222	Concrete and Asphalt Testing	3	(MTH125 or MTH135) and CET121	
	TOTAL CREDIT HOURS	9		

# STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
CET121	Building Materials and Construction Methods	3	
Second Semester			
CET125	Soil Mechanics	3	(MTH125 or MTH135) and MET124
CET222	Concrete and Asphalt Testing	<u>3</u>	(MTH125 or MTH135) and CET121
		6	
	TOTAL CREDITS	9	

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# CIVIL ENGINEERING TECHNOLOGY - CONSTRUCTION TECHNICIAN

**2021 Catalog**Effective Summer 2020

4210

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
CET121	Building Materials and Construction Methods	3		
CET235	Construction Management, Job Cost and Safety	3	CET121 and ITD122 or Proficiency	
CET237	Interpreting Construction Documents	3		
DET125	Basic AutoCAD	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
	TOTAL CREDIT HOURS	16		

### STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CET121	Building Materials and Construction Methods	3	
CET237	Interpreting Construction Documents	3	
DET125	Basic AutoCAD	3	
ITD122	Computer Applications for Professionals <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		13	
Second Semester			
CET235	Construction Management, Job Cost and Safety	$\frac{3}{3}$	CET121 <b>and</b> ITD122 <b>or</b> Proficiency
	TOTAL CREDITS	16	

288

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester



# ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY - ELECTRICAL/ELECTRONIC TROUBLESHOOTING

2021 Catalog

Effective Summer 2020

4408

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) and EET120	
EET123	Electronic Devices and Circuits	4	EET120 <b>and</b> Pre-Co-EET122	
	TOTAL CREDIT HOURS	17		

## STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	<u>Pre- and Co-requisites</u>
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
EET120	DC Circuit Analysis	<u>4</u>	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135
		9	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) and EET120
EET123	Electronic Devices and Circuits	4	EET120 and Pre-Co-EET122
		8	
	TOTAL CREDITS	17	

<sup>^</sup>Based on SSC placement scores

# Stark State COLLEGE

# CAREER ENHANCEMENT CERTIFICATE

# **ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY - INDUSTRIAL CONTROLS**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

**2021 Catalog**Effective Summer 2020

4409

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) and EET120	
EET126	Electrical Machines	4	Pre-Co-EET122	
EET227	PLCs and Industrial Controls I	3	EET120 <b>or</b> EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
	TOTAL CREDIT HOURS	18		

### STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
EET120	DC Circuit Analysis	<u>4</u>	Pre-Co-MTH125 or
		4	Pre-Co-MTH135
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) and EET120
EET126	Electrical Machines	4	Pre-Co-EET122
EET227	PLCs and Industrial Controls I	3 11	EET120 <b>or</b> EST230
Third Semester			
EET228	PLCs and Industrial Controls II	<u>3</u>	EET227
		3	
	TOTAL CREDITS	18	

# Stark State COLLEGE MY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY - INDUSTRIAL ELECTRICITY AND ELECTRONICS

2021 Catalog

Effective Summer 2020

4410

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Engineering Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135	
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) and EET120	
EET123	Electronic Devices and Circuits	4	EET120 <b>and</b> Pre-Co-EET122	
EET232	Industrial Electronics	4	EET123	
EET128	NEC and Electrical Systems Design	2	EET122	
	TOTAL CREDIT HOURS	23		

# STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency
EET120	DC Circuit Analysis	<u>4</u>	Pre-Co-MTH125 <b>or</b> Pre-Co-MTH135
		9	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co- MTH135) <b>and</b> EET120
EET123	Electronic Devices and Circuits	<u>4</u>	EET120 and Pre-Co-EET122
		8	
Third Semester			
EET232	Industrial Electronics	4	EET123
EET128	NEC and Electrical Systems Design	<u>2</u>	EET122
		6	
	TOTAL CREDITS	23	

<sup>^</sup>Based on SSC placement scores

# Stark State COLLEGE MY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# INDUSTRIAL TECHNOLOGY - CAD/CAM SPECIALIST (COMPUTER-AIDED DRAFTING/COMPUTER-AIDED MACHINING)

2021 Catalog

Effective Summer 2020

4316

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT122	Machine Tools	4		
IET223	Computer Numerical Control	4		
AIT137	CAD/CAM	4	AIT122 and IET223	
AIT225	Advanced CAD/CAM	4	AIT137	
	TOTAL CREDIT HOURS	16		

## STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AIT122	Machine Tools	4	
IET223	Computer Numerical Control	$\frac{4}{8}$	
Second Semester			
AIT137	CAD/CAM	$\frac{4}{4}$	AIT122 and IET223
Third Semester AIT225	Advanced CAD/CAM	$\frac{4}{4}$	AIT137
	TOTAL CREDITS	16	



# CAREER ENHANCEMENT CERTIFICATE INDUSTRIAL TECHNOLOGY – MECHANICAL DRIVE SYSTEMS

2021 Catalog

Effective Summer 2020

4318

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST121	Blueprint Reading	2		
MST221	Mechanical Drive Components	3		
MST125	Basic Pumps	3		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
	TOTAL CREDIT HOURS	14		

# STUDENT ADVISING NOTES

## Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
MST121	Blueprint Reading	2	
MST125	Basic Pumps	3	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 <b>or</b> MTH023 <b>or</b> Proficiency
MST221	Mechanical Drive Components	<u>3</u>	
	TOTAL CREDITS	14	

293

<sup>^</sup>Based on SSC placement scores

# Stark State COLLEGE WY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# INDUSTRIAL TECHNOLOGY - PRECISION MACHINING AND CNC PROGRAMMING

2021 Catalog

Effective Summer 2020

4319

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT122	Machine Tools	4		
AIT123	Advanced Machine Tools	4	AIT122	
IET223	Computer Numerical Control	4		
	TOTAL CREDIT HOURS	12		

# STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
AIT122	Machine Tools	4	
IET223	Computer Numerical Control	$\frac{4}{8}$	
Second Semester			
AIT123	Advanced Machine Tools	$\frac{4}{4}$	AIT122
	TOTAL CREDITS	12	



# INDUSTRIAL TECHNOLOGY - WELDING TECHNOLOGY AWS\* CERTIFICATION EXAM PREPARATION

**2021 Catalog**Effective Summer 2020

4320

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

# GENERAL MIG, TIG, ALUMINUM, AND OXYFUEL WELDING

(GENERAL AWS D1.1 EXAM PREP)

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST127	Principles of Welding◆	3	Co-MST128	
MST128	Welding Lab◆	3	Co-MST127	
	TOTAL CREDIT HOURS	6		

# STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<sup>\*</sup>AWS stands for American Welding Society

<sup>♦</sup>AWS testing available at applicable course completion



# CAREER ENHANCEMENT CERTIFICATE INDUSTRIAL TECHNOLOGY – 3G WELDING CERTIFICATION EXAM PREPARATION

2021 Catalog

Effective Summer 2020

4321

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST127	Principles of Welding	3	Co-MST128	
MST128	Welding Lab	3	Co-MST127	
MST136	3G Welding Certification Exam Preparatory#◆	2	MST127 and MST128	
	TOTAL CREDIT HOURS	8		

### STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Lab	<u>3</u> <b>6</b>	Co-MST127
Second Semester			
MST136	3G Welding Certification Exam Preparatory#◆	$\frac{2}{2}$	MST127 and MST128
	TOTAL CREDITS	8	

296

<sup>#</sup>Prerequisite of satisfactory welding required prior to course enrollment

<sup>♦</sup>AWS testing available at applicable course completion



**INDUSTRIAL TECHNOLOGY - 6G WELDING CERTIFICATION EXAM PREPARATION** 

4322

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST127	Principles of Welding	3	Co-MST128	
MST128	Welding Lab	3	Co-MST127	
MST137	6G Welding Certification Exam Preparatory#◆	5	MST127 and MST128	
	TOTAL CREDIT HOURS	11		

### STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Lab	3 6	Co-MST127
Second Semester MST137	6G Welding Certification Exam Preparatory#◆	<u>5</u> 5	MST127 and MST128
	TOTAL CREDITS	11	

297

#Prerequisite of satisfactory welding required prior to course enrollment

<sup>♦</sup>AWS testing available at applicable course completion



# CAREER ENHANCEMENT CERTIFICATE **INDUSTRIAL TECHNOLOGY -**TITANIUM/STAINLESS STEEL WELDING

2021 Catalog

Effective Summer 2020

4324

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST138	Preparatory Gas Tungsten Arc Welding – Titanium / Stainless Steel #	5	MST127 and MST128	
MST139	Gas Tungsten Arc Welding-Titanium / Stainless Steel ◆	3	MST138	
	TOTAL CREDIT HOURS	8		

### STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
MST138	Preparatory Gas Tungsten Arc Welding – Titanium/Stainless Steel #	5	MST127 and MST128
Second Semester			
MST139	Gas Tungsten Arc Welding-Titanium/Stainless Steel ◆	<u>3</u>	MST138
	TOTAL CREDITS	8	

298

#Prerequisite of satisfactory welding required prior to course enrollment

♦AWS testing available at applicable course completion

# Stark State COLLEGE MY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# ENVIRONMENTAL, HEALTH, AND SAFETY TECHNOLOGY - SAFETY - HEAVY INDUSTRY

2021 Catalog

Effective Summer 2020

4332

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENV121	Regulations and Compliance	3		
ENV123	OSHA 10-Hour General Industry Safety	1		
ENV124	Transportation Hazardous Materials Training	1		
ENV169	Radiation Safety	2		
ENV221	OSHA 40-Hour HAZWOPER	2		
ENV228	Health and Safety	3	ENV121	
	TOTAL CREDIT HOURS	12		

# STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ENV121	Regulations and Compliance	3	
ENV123	OSHA 10-Hour General Industry Safety	1	
ENV124	Transportation Hazardous Materials Training	1	
ENV169	Radiation Safety	2	
ENV221	OSHA 40-Hour HAZWOPER	<u>2</u>	
		9	
Second Semester			
ENV228	Health and Safety	$\frac{3}{3}$	ENV121
		3	
	TOTAL CREDITS	12	

299



# INDUSTRIAL TECHNOLOGY - BASIC INDUSTRIAL MAINTENANCE

2021 Catalog

Effective Summer 2020

4407

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MTH107	Industrial Math^	3	(MTH021 or Proficiency) or Pre-Co-MTH007	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
MST121	Blueprint Reading	2		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
	TOTAL CREDIT HOURS	16		

### STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MTH107	Industrial Math^	3	(MTH021 or Proficiency) <b>or</b> Pre-Co-MTH007
EST230	Electrical Circuits and Devices <sup>^</sup>	4	(MTH025 or Proficiency) <b>or</b> MTH107
MST121	Blueprint Reading	2	
MST134	Hydraulic and Pneumatic Systems^	<u>6</u>	MTH022 or MTH023 or Proficiency
	TOTAL CREDITS	16	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

# Stark State COLLEGE MY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY - ENVIRONMENTAL REMEDIATION TECHNICIAN

2021 Catalog

Effective Summer 2020

4453

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENV121	Regulations and Compliance	3		
ENV124	Transportation Hazardous Materials Training	1		
ENV164	Sustainable Green Building Technology	3		
ENV165	OSHA 10-Hour Construction Safety	1		
ENV169	Radiation Safety	2		
ENV221	OSHA 40-Hour HAZWOPER	2		
ENV228	Health and Safety	3	ENV121	
ENG124	College Composition^	3	Co-ENG024 or Co- ENG011 or Proficiency	
<b>ELECTIVE: Sele</b>	ct one (1) course below.			
PHL122	Ethics	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
	TOTAL CREDIT HOURS	21		

# STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ENV121	Regulations and Compliance	3	
ENV124	Transportation Hazardous Materials Training	1	
ENV164	Sustainable Green Building Technology	3	
ENV165	OSHA 10-Hour Construction Safety	1	
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011
	•		or Proficiency
		11	-
Second Semester			
ENV169	Radiation Safety	2	
ENV221	OSHA 40-Hour HAZWOPER	2	
ENV228	Health and Safety	3	ENV121
$Elective^{I}$	•	<u>3</u>	Check for prerequisites
		10	
	TOTAL CREDITS	21	

^Based on SSC placement scores

<sup>1</sup>Electives: PHL122, PSY121, SOC121

# Stark State COLLEGE NY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# **ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY - OSHA 40-HOUR HAZWOPER**

2021 Catalog

Effective Summer 2020

4454

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENV121	Regulations and Compliance	3		
ENV221	OSHA 40-Hour HAZWOPER	2		
	TOTAL CREDIT HOURS	5		

# STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

21, 7, 22, 1	TOTAL CREDITS	<u>=</u> 5	
ENV221	OSHA 40-Hour HAZWOPER	2	
ENV121	Regulations and Compliance	3	
<u>First Semester</u>		Credit Hours	Pre- and Co-requisites

# Stark State COLLEGE WY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# ENVIRONMENTAL HEALTH AND SAFETY – DEPARTMENT OF TRANSPORTATION (DOT) SAFETY CERTIFICATE

2021 Catalog

Effective Summer 2020

4461

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENV121	Regulations and Compliance	3		
ENV124	Transportation Hazardous Materials Training	1		
	TOTAL CREDIT HOURS	4		

# STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENV121	Regulations and Compliance	3	
ENV124	Transportation Hazardous Materials Training	<u>1</u>	
	TOTAL CREDITS	4	

# Stark State COLLEGE MY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY - HVACR TECHNICIAN (LEVEL 1)

**2021 Catalog**Effective Summer 2020

4505

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HVC121	HVAC Principles I	3		
HVC122	HVAC Principles II	3	Pre-Co-HVC121	
HVC227	HVAC Field Installation Techniques and Procedures	4	Pre-Co-HVC122	
HVC234	HVAC Electrical Systems and Applications^	3		
	TOTAL CREDIT HOURS	13		

# STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
HVC121	HVAC Principles I	3	
HVC122	HVAC Principles II	3	Pre-Co-HVC121
HVC227	HVAC Field Installation Techniques and Procedures	4	Pre-Co-HVC122
HVC234	HVAC Electrical Systems and Applications^	<u>3</u>	
	TOTAL CREDITS	13	

304

<sup>^</sup>Based on SSC placement scores

# Stark State COLLEGE MY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# HEATING VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY - HVACR TECHNICIAN (LEVEL II)

**2021 Catalog**Effective Summer 2020

4506

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HVC222	HVAC Design and Application	3	HVC122	
HVC223	HVAC System Operation and Troubleshooting – Heating	3	HVC122	
HVC224	HVAC System Operation and Troubleshooting – Cooling	3	HVC122	
MST121	Blueprint Reading	2		
MST126	Pipefitting Principles and Applications	3		
	TOTAL CREDIT HOURS	14		

# STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
HVC222	HVAC Design and Application	3	HVC122
MST121	Blueprint Reading	2	
MST126	Pipefitting Principles and Applications	<u>3</u>	
		8	
Second Semester			
HVC223	HVAC System Operation and Troubleshooting – Heating	3	HVC122
HVC224	HVAC System Operation and Troubleshooting – Cooling	<u>3</u>	HVC122
	-	6	
	TOTAL CREDITS	14	



# CAREER ENHANCEMENT CERTIFICATE **INDUSTRIAL TECHNOLOGY - BASIC ROBOTICS**

2021 Catalog Effective Summer 2020

4553

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT139	Introduction to Robotics	2		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
MST221	Mechanical Drive Components	3		
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)	
	TOTAL CREDIT HOURS	12		

# STUDENT ADVISING NOTES

## Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) and (ITD100 or Proficiency)
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
AIT139	Introduction to Robotics	2	
MST221	Mechanical Drive Components	<u>3</u>	
	TOTAL CREDITS	12	

306

<sup>^</sup>Based on SSC placement scores



# INDUSTRIAL TECHNOLOGY - AUTOMATION AND ROBOTICS SPECIALIST

4554 died to the college, and changes

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
EET120	DC Circuit Analysis	4	Pre-Co-MTH135 <b>or</b> Pre-Co-MTH125	
AIT139	Introduction to Robotics	2		
AIT220	Industrial Robotics*	4	AIT139	
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 <b>or</b> Proficiency
EET120	DC Circuit Analysis	4	Pre-Co-MTH135 <b>or</b> Pre-Co-MTH125
AIT139	Introduction to Robotics	<u>2</u>	F16-C0-W11 H123
		12	
Second Semester			
AIT220	Industrial Robotics*	$\frac{4}{4}$	AIT139
	TOTAL CREDITS	16	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>\*</sup>FANUC Automation and Robotics certification will be awarded after successfully completing AIT220.

# Stark State COLLEGE NY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY - GREEN TECHNOLOGY ESSENTIALS

2021 Catalog

Effective Summer 2020

4567

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO126	Science, Energy and the Environment	4		
ENV164	Sustainable Green Building Technology	3		
	TOTAL CREDIT HOURS	7		

# STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BIO126	Science, Energy and the Environment	4	
ENV164	Sustainable Green Building Technology	<u>3</u>	
	TOTAL CREDITS	7	

# Stark State COLLEGE WY ACADEMIC PLAN

# **CAREER ENHANCEMENT CERTIFICATE**

# ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY - ENVIRONMENTAL TECHNICIAN SUPERVISOR

2021 Catalog

Effective Summer 2020

4607

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Industrial Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENV121	Regulations and Compliance	3		
ENV124	Transportation Hazardous Materials Training	1		
ENV169	Radiation Safety	2		
ENV221	OSHA 40-Hour HAZWOPER	2		
ENV231	OSHA 30-Hour General Industry	2		
	TOTAL CREDIT HOURS	10		

### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ENV121	Regulations and Compliance	3	
ENV124	Transportation Hazardous Materials Training	1	
ENV169	Radiation Safety	2	
ENV221	OSHA 40-Hour HAZWOPER	2	
ENV231	OSHA 30-Hour General Industry	<u>2</u>	
	TOTAL CREDITS	10	



# CAREER ENHANCEMENT CERTIFICATE NATURAL GAS AND OIL TECHNOLOGY SHALENET C1

**2021 Catalog**Effective Summer 2020

4327

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ARL234	Gas Compression and Flow Dynamics	3		
PET132	Petroleum Instrumentation	3		
ENV221	OSHA 40-Hour HAZWOPER	2		
MST221	Mechanical Drive Components	3		
PET101	Introduction to the Petroleum Industry	3		
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
	TOTAL CREDIT HOURS	16		

# STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ARL234	Gas Compression and Flow Dynamics	3	
PET132	Petroleum Instrumentation	3	
ENV221	OSHA 40-Hour HAZWOPER	2	
MST221	Mechanical Drive Components	3	
PET101	Introduction to the Petroleum Industry	3	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	<u>2</u>	
	TOTAL CREDITS	16	

310

<sup>^</sup>Based on SSC placement scores

# Stark State COLLEGE

# CAREER ENHANCEMENT CERTIFICATE

# PETROLEUM BASIC INDUSTRIAL MAINTENANCE CORE

**2021 Catalog**Effective Summer 2020

4328

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT134	Preventive and Predictive Maintenance	3	MST125 and MST221	
AIT124	Principles of Rigging	2		
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107	
MST121	Blueprint Reading	2		
MST125	Basic Pumps	3		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST221	Mechanical Drive Components	3		
	TOTAL CREDIT HOURS	23		

# STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
EST230	Electrical Circuits and Devices <sup>^</sup>	4	(MTH025 or Proficiency) <b>or</b> MTH107
AIT124	Principles of Rigging	2	
MST125	Basic Pumps	3	
MST221	Mechanical Drive Components	<u>3</u>	
		12	
Second Semester			
AIT134	Preventive and Predictive Maintenance	3	MST125 and MST221
MST121	Blueprint Reading	2	
MST134	Hydraulic and Pneumatic Systems^	<u>6</u>	MTH022 or MTH023 or Proficiency
		11	
	TOTAL CREDITS	23	

<sup>^</sup>Based on SSC placement scores



2021 Catalog Effective Summer 2020

4329

# PETROLEUM BASIC INDUSTRIAL PROCESS **CONTROLS**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET227	PLCs and Industrial Controls I	3	EET120 <b>or</b> EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) or MTH107	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
	TOTAL CREDIT HOURS	12		

### STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
EST230	Electrical Circuits and Devices^	4	(MTH025 or Proficiency) <b>or</b> MTH107
PET102	Introduction to Supervisory Control and	<u>2</u>	
	Data Acquisition (SCADA)	9	
Second Semester			
EET228	PLCs and Industrial Controls II	<u>3</u> <b>3</b>	EET227
		3	
	TOTAL CREDITS	12	

312

<sup>^</sup>Based on SSC placement scores

# Stark State COLLEGE NY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# OIL AND GAS TECHNOLOGY - PETROLEUM BASIC INDUSTRIAL PROCESS OPERATION CORE

**2021 Catalog**Effective Summer 2020

4330

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST121	Blueprint Reading	2		
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency	
MST221	Mechanical Drive Components	3		
	TOTAL CREDIT HOURS	11		

## STUDENT ADVISING NOTES

### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
MST121	Blueprint Reading	2	
MST134	Hydraulic and Pneumatic Systems^	6	MTH022 or MTH023 or Proficiency
MST221	Mechanical Drive Components	<u>3</u>	
	TOTAL CREDITS	11	

313

<sup>^</sup>Based on SSC placement scores

# Stark State

# CAREER ENHANCEMENT CERTIFICATE OIL AND GAS TECHNOLOGY - RIGGING OIL

2021 Catalog Effective Summer 2020

4331

# **AND GAS INDUSTRY**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT124	Principles of Rigging	2		
ENV221	OSHA 40-Hour HAZWOPER	2		
MST121	Blueprint Reading	2		
	TOTAL CREDIT HOURS	6		

### STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
AIT124	Principles of Rigging	2	
ENV221	OSHA 40-Hour HAZWOPER	2	
MST121	Blueprint Reading	<u>2</u>	
	TOTAL CREDITS	6	

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# OIL AND GAS TECHNOLOGY - WELDING TECHNOLOGY FOR GAS & OIL PRODUCTION

2021 Catalog

Effective Summer 2020

4333

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST121	Blueprint Reading	2		
MST126	Pipefitting Principles and Applications	3		
MST127	Principles of Welding	3	Co-MST128	
MST128	Welding Laboratory	3	Co-MST127	
MST136	3G Welding Certification Exam Preparatory #◆	2	MST127 and MST128	
MST137	6G Welding Certification Exam Preparatory #◆	5	MST127 and MST128	
	TOTAL CREDIT HOURS	18		

# STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
MST121	Blueprint Reading	2	
MST126	Pipefitting Principles and Applications	3	
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Laboratory	<u>3</u>	Co-MST127
		11	
Second Semester			
MST136	3G Welding Certification Exam Preparatory #◆	2	MST127 and MST128
MST137	6G Welding Certification Exam Preparatory #◆	<u>5</u>	MST127 and MST128
		7	
	TOTAL CREDITS	18	

315

#Prerequisite of satisfactory welding required prior to course enrollment.

<sup>♦</sup>AWS testing available at applicable course completion.

# Stark State COLLEGE NY ACADEMIC PLAN

# CAREER ENHANCEMENT CERTIFICATE

# OIL AND GAS TECHNOLOGY - LEASE OPERATOR

2021 Catalog

Effective Summer 2020

4334

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PET131	Corrosion Basics	3		
PET132	Petroleum Instrumentation	3		
PET141	Production Operations	3		
PET142	Artificial Lift	3		
	TOTAL CREDIT HOURS	12		

## STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
PET131	Corrosion Basics	3	
PET132	Petroleum Instrumentation	3	
PET141	Production Operations	3	
PET142	Artificial Lift	<u>3</u>	
	TOTAL CREDITS	12	

# Stark State COLLEGE

# **CAREER ENHANCEMENT CERTIFICATE**

# SHALENET INSTRUMENTATION AND MEASUREMENT TECHNICIAN

2021 Catalog

Effective Summer 2020

4336

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ARL234	Gas Compression and Flow Dynamics	3		
ETD224	Engineering Co-op	4		
or	or	or	Check for prerequisites	
PET230	Petroleum Measurement Capstone	3		
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2		
PET131	Corrosion Basics	3		
PET135	Measurement and Basic Pipeline Operations	3		
PET141	Production Operations	3		
PET210	Petroleum Process Controls	3		
	TOTAL CREDIT HOURS	20 - 21		

#### STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ARL234	Gas Compression and Flow Dynamics	3	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
PET131	Corrosion Basics	3	
PET135	Measurement and Basic Pipeline Operations	<u>3</u>	
		11	
Second Semester			
PET141	Production Operations	3	
PET210	Petroleum Process Controls	3	
ETD224	Engineering Co-op	4	
or	or	or	Check for prerequisites
PET230	Petroleum Measurement Capstone	3	
		9 - 10	
	TOTAL CREDITS	20 - 21	

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# CAREER ENHANCEMENT CERTIFICATE OIL AND GAS TECHNOLOGY - COMMERCIAL DRIVER'S LICENSE (CDL)

2021 Catalog

Effective Spring 2020

4460

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Engineering Technologies Division

Oil and Gas Technology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CDL121	Commercial Driver's License Class A – Safe Operation and Control*	5	Co-CDL122 <b>and</b> Co-CDL123	
CDL122	Commercial Driver's License Class A – Advanced Operations and Maintenance	6	Co-CDL121 <b>and</b> Co-CDL123	
CDL123	Commercial Driver's License - Class A – Behind the Wheel Street	1	Co-CDL121 and Co-CDL122	
ENV123	OSHA 10-Hour General Industry Safety	1		
ENV124	Transportation Hazardous Material Training	1		
ENV221	OSHA 40-Hour HAZWOPER	2		
	TOTAL CREDIT HOURS	16		

\*Participation in CDL121 requires a valid Ohio driver's license with 2 years' driving experience. Must be 18 years of age and show proof of citizenship. Must meet Department of Transportation (DOT) vision and physical requirements and pass the DOT drug screen.

Students must pass the Ohio CDL Class A Driver's License examination to receive their Class A CDL. The examination is administered at the end of CDL123.

**2021 Catalog** Effective Spring 2020

# OIL AND GAS TECHNOLOGY - COMMERCIAL DRIVER'S LICENSE (CDL)

4460

# STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
CDL121	Commercial Driver's License Class A – Safe Operation and Control*	5	Co-CDL122 and Co-CDL123
CDL122	Commercial Driver's License Class A – Advanced Operations and Maintenance	6	Co-CDL121 and Co-CDL123
CDL123	$\label{lem:commercial} \begin{tabular}{ll} Commercial Driver's License - Class $A-Behind$ the Wheel Street \\ \end{tabular}$	1	Co-CDL121 and Co-CDL122
ENV123	OSHA 10-Hour General Industry Safety	1	
ENV124	Transportation Hazardous Material Training	1	
ENV221	OSHA 40- Hour HAZWOPER	<u>2</u>	
	TOTAL CREDITS	16	

See footnotes on reverse side

# **HEALTH**



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



# ASSOCIATE OF APPLIED SCIENCE HEALTH INFORMATION MANAGEMENT

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

3050

Pre-3051



Health and Public Services Division

Medical Technology Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HIT121	Health Data Management and Delivery Systems ▲-	4	Co-HIT123	
HIT124	Clinical Classification Systems I ▲+	4	HIT121 and Pre-Co-BIO124	
HIT122	Alternative Health Records and Registries ▲+	3	HIT121	
HIT221	Clinical Classification Systems II	3	HIT124 and BIO222	
HIT222	Healthcare Statistics and Research ▲-	3	HIT124 and Co-HIT224	
HIT223	HIM Supervision Concepts and Practices ▲+	3	HIT224	
HIT224	Quality Management in Healthcare ▲-	2	Co-HIT222	
HIT226	Professional Practice Experience I/Seminar I▲-	2		
HIT227	Professional Practice Experience II/Seminar II ▲+	2		
HIT232	Healthcare Reimbursement Methodologies	2	HIT121	
HIT233	Clinical Classification Systems III	2	HIT124	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO123	Principles of Human Structure and Function (lab) ▲#	5	BIO101 or Proficiency	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO222	Pharmacology	3	BIO122 or BIO123	
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
HIT123	Healthcare Legal and Ethical Issues*▲-	2	HIT230 or Co-HIT121	
HIT229	Health Information Systems and Technology ▲+	3	(HIT224 and ITD122) or CIS126	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH124	Statistics ^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
	Psychology or Sociology Elective <sup>\Lambdal</sup>	3	IDS102 or Proficiency	
	Total	32		
	TOTAL CREDIT HOURS	62		

<sup>^</sup>Based on SSC placement scores.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program. Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

> This program requires an application (separate from the College). Please see your advisor to discuss the application process.

> > Rev. 1/2020

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

A Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school and those who prefer to refresh their knowledge of the material should complete the listed pre-requisites. #BIO121 and BIO122 can be substituted for BIO123.

<sup>\*\*</sup>The coding professional practice experience is on campus in our virtual lab.

<sup>\*</sup>Students in the Health Information Management major are required to take HIT121. HIT230 is required for all other majors.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability. 

Any Psychology or Sociology course.

Effective Summer 2020

# **HEALTH INFORMATION MANAGEMENT**

3050

# **FULL-TIME STUDENT ADVISING NOTES**

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years. **Health Information Management courses must be taken in the order listed below.** 

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BIO123	Principles of Human Structure and Function (lab) 🕹 #	5	BIO101 or Proficiency
BIO125	Medical Terminology	3	
HIT121	Health Data Management and Delivery Systems ▲ -	4	Co-HIT123
HIT123	Healthcare Legal and Ethical Issues*▲-	2 15	HIT230 or Co-HIT121
Second Semester			
BIO124	Human Diseases	3	BIO122 or BIO123
BIO222	Pharmacology	3	BIO122 or BIO123
HIT124	Clinical Classification System I ▲+	4	HIT121 and Pre-Co-BIO124
HIT232	Healthcare Reimbursement Methodologies	2	HIT121
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		15	
<u>Summer</u>			
HIT221	Clinical Classification Systems II	3	BIO222 and HIT124
HIT233	Clinical Classification Systems III	<u>2</u>	HIT124
		5	
Third Semester			
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
HIT222	Healthcare Statistics and Research ▲-	3	HIT124 and Co-HIT224
HIT224	Quality Management in Healthcare A-	2	Co-HIT222
HIT226 MTH124	Professional Practice Experience I/Seminar I ▲ - Statistics ^	2 3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b>
W1111124	Statistics	3	Proficiency
		13	<b>,</b>
Fourth Semester			
HIT122	Alternative Health Records and Registries ▲+	3	HIT121
HIT223	HIM Supervision Concepts and Practices ▲+	3	HIT224
HIT227	Professional Practice Experience II/ Seminar II ▲ +	2	
HIT229	Health Information Systems and Technology ▲+	3	(HIT224 and ITD122) or CIS126
Psychology or Sociology Elective^1		<u>3</u>	IDS102 or Proficiency
		14	
	TOTAL CREDITS	62	

<sup>^</sup>Based on SSC placement scores.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

A Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school and those who prefer to refresh their knowledge of the material should complete the listed pre-requisites.
#BIO121 and BIO122 can be substituted for BIO123.

<sup>\*\*</sup>The coding professional practice experience is on campus in our virtual lab.

<sup>\*</sup>Students in the Health Information Management major are required to take HIT121. HIT230 is required for all other majors.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>&</sup>lt;sup>1</sup> Any Psychology or Sociology course.



#### **ONE-YEAR CERTIFICATE**

# MEDICAL CODING CERTIFICATE PROGRAM (MORNING/NIGHT TRACK)

3055 Pre-3056

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Medical Technology Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HIT121	Health Data Management and Delivery Systems ▲-	4	Co-HIT123	
HIT123	Healthcare Legal and Ethical Issues*▲-	2	HIT230 <b>or</b> Co-HIT121	
HIT124	Clinical Classification System I ▲+	4	HIT121 and Pre-Co- BIO124	
HIT221	Clinical Classification Systems II ▲ *	3	BIO222 and HIT124	
HIT233	Clinical Classification Systems III ▲ ▲*	2	HIT124	
HIT231	Coding Professional Practice Experience/Seminar** ▲ ▲*	1	HIT124	
HIT232	Healthcare Reimbursement Methodologies ▲+	2	HIT121	
	Total	18		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO123	Principles of Human Structure and Function (lab)#	5	BIO101 or Proficiency	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO222	Pharmacology	3	BIO122 or BIO123	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
	Total	18		
	TOTAL CREDIT HOURS	36		

<sup>^</sup>Based upon SSC placement score.

#BIO121 and BIO122 may be substituted for BIO123

Application criteria require a "B" or better in HS BIO or BIO101 to apply to the MC program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

Medical Coding One-Year Certificate – Math requirement not needed

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Students in the Health Information Management major are required to take HIT121. HIT230 is required for all other majors.

<sup>\*\*</sup>The coding professional practice experience is on campus in our virtual lab.

<sup>▲</sup> The summer semester courses are accelerated and the schedule is rigorous.

<sup>▲ +</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲\*</sup> Summer only courses. Please see your academic advisor for availability.

#### 2021 Catalog

Effective Summer 2020

#### **ONE-YEAR CERTIFICATE**

### MEDICAL CODING CERTIFICATE PROGRAM MORNING/NIGHT PROGRAM

3055

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit	Pre- and Co-requisites
		<u>Hours</u>	
SSC101	Student Success Seminar^^	1	Take first semester
HIT121	Health Data Management and Delivery Systems ▲-	4	Co-HIT123
HIT123	Healthcare Legal and Ethical Issues*▲-	2	HIT230 or Co-HIT121
BIO123	Principles of Human Structure and Function (lab)#	5	BIO101 or Proficiency
BIO125	Medical Terminology	<u>3</u>	
		15	
Second			
<u>Semester</u>			
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
HIT124	Clinical Classification System I ▲+	4	HIT121 <b>and</b> Pre-Co- BIO124
BIO124	Human Diseases	3	BIO122 or BIO123
BIO222	Pharmacology	3	BIO122 or BIO123
HIT232	Healthcare Reimbursement Methodologies ▲+	<u>2</u>	HIT121
		15	
<u>Summer</u>			
HIT221	Clinical Classification Systems II ▲ ▲*	3	BIO222 and HIT124
HIT233	Clinical Classification Systems III ▲ ▲*	2	HIT124
HIT231	Coding Professional Practice Experience/Seminar** ▲ ▲*	<u>1</u>	HIT124
		6	
	TOTAL CREDITS	36	

<sup>^</sup>Based upon SSC placement score.

#BIO121 and BIO122 may be substituted for BIO123

Application criteria require a "B" or better in HS BIO or BIO101 to apply to the MC program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

Medical Coding One-Year Certificate – Math requirement not needed

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>\*</sup>Students in the Health Information Management major are required to take HIT121. HIT230 is required for all other majors.

<sup>\*\*</sup>The coding professional practice experience is on campus in our virtual lab.

<sup>▲</sup> The summer semester courses are accelerated and the schedule is rigorous.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲\*</sup> Summer only courses. Please see your academic advisor for availability.



### ASSOCIATE OF APPLIED SCIENCE **MEDICAL ASSISTING - Day Track**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

3100 Pre-3101



Health and Public Services Division

Medical Technology Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAT100	Medical Assisting I	5	Co-MAT101	
MAT101	Medical Office Procedures	4	Co-MAT100	
MAT102	Medical Assisting II	5	MAT100 and MAT101	
MAT200	Medical Laboratory Procedures for Medical Assisting	3	MAT102	
MAT201	Insurance for Medical Assisting	3	MAT102	
MAT202	Pharmacology/Administration of Medications	3	MAT102	
MAT203	Medical Assisting III	2	MAT200 and MAT201 and Co-MAT204 and Co-MAT205 and Co-MAT206	
MAT204	Medical Office Management	3	MAT200 and MAT201 and Co-MAT203 and Co-MAT205 and Co-MAT206	
MAT205	Medical Assisting Seminar	1	MAT200 and MAT201 and Co-MAT203 and Co-MAT204 and Co-MAT206	
MAT206	Medical Assisting Practicum	2	MAT200 and MAT201 and Co-MAT203 and Co-MAT204 and Co-MAT205	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
BIO101	Introduction to Anatomy & Physiology^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
COM122	Interpersonal Communications	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH105 or MTH124 or MTH125	Math for Allied Health^ or Statistics ^ $\Omega$ or College Algebra^ $\Omega$	3 or 3 or 4	Check for prerequisites	
NTR121	Nutrition for Health^	3	IDS102 or Proficiency	
PSY121	General Psychology^	3	IDS102 or Proficiency	
GER121	Introduction to Gerontology	3		
MAT103	Medical Law and Ethics	3		
	Elective*	3-4		
	Total	34-36		
	TOTAL CREDIT HOURS	65-67		

<sup>^</sup>Based on SSC placement scores.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Ω MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Choose from the following options: (MAT234 and MAT235), GER 122, Sociology offering, or Psychology offering. MAT234 requires MAT235 in order to apply for the phlebotomy certification exam. MAT235 requires an additional semester.

Effective Summer 2020

#### **MEDICAL ASSISTING - Day Track**

#### 3100

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BIO101	Introduction to Anatomy & Physiology <sup>^</sup>	3	IDS102 or Proficiency
BIO125	Medical Terminology	3	
MAT100	Medical Assisting I	5	Co-MAT101
MAT101	Medical Office Procedures	<u>4</u>	Co-MAT100
		16	
Second Semester			
MTH105	Math for Allied Health <sup>^</sup>	3	
or	or	or	
MTH124	Statistics ^ Ω	3	Check for prerequisites
or	or	or	
MTH125	College Algebra <sup>^</sup> Ω	4	
MAT102	Medical Assisting II	5	MAT100 and MAT101
MAT103	Medical Law and Ethics	3	
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or
	r · · · · · · · · · · · · · · · · · · ·	=	Proficiency
		14-15	
Third Semester (Summer)			
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
COM122	Interpersonal Communication	<u>3</u>	
		6	
Fourth Semester			
MAT200	Medical Lab Procedures for Medical Assisting	3	MAT102
MAT201	Insurance for Medical Assisting	3	MAT102
MAT202	Pharmacology/Administration of Medications	3	MAT102
Elective*	•	3-4	
GER121	Introduction to Gerontology	3	
		15-16	
Fifth Semester			
MAT203	Medical Assisting III	2	MAT200 and MAT201 and Co-MAT204
			and Co-MAT205 and Co-MAT206
MAT204	Medical Office Management	3	MAT200 and MAT201 and Co-MAT203
			and Co-MAT205 and Co-MAT206
MAT206	Medical Assisting Practicum	2	MAT200 and MAT201 and Co-MAT203
			and Co-MAT204 and Co-MAT205
MAT205	Medical Assisting Seminar	1	MAT200 and MAT201 and Co-MAT203
			and Co-MAT204 and Co-MAT206
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
NTR121	Nutrition for Health^	<u>3</u>	IDS102 or Proficiency
		14	·
	TOTAL CREDITS	65-67	

<sup>^</sup>Based on SSC placement scores.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

 $<sup>\</sup>Omega$  MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Choose from the following options: (MAT234 and MAT235), GER 122, Sociology offering, or Psychology offering. MAT234 requires MAT235 in order to apply for the phlebotomy certification exam. MAT235 requires an additional semester.



# ASSOCIATE OF APPLIED SCIENCE MEDICAL ASSISTING - Night Track

2021 Catalog

Effective Summer 2020

3100 Pre-3101



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Medical Technology Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAT100	Medical Assisting I	5	Co-MAT101	
MAT101	Medical Office Procedures	4	Co-MAT100	
MAT102	Medical Assisting II	5	MAT100 and MAT101	
MAT200	Medical Laboratory Procedures for Medical Assisting	3	MAT102	
MAT201	Insurance for Medical Assisting	3	MAT102	
MAT202	Pharmacology/Administration of Medications	3	MAT102	
MAT203	Medical Assisting III	2	MAT200 and MAT201 and Co-MAT204 and Co-MAT205 and Co-MAT206	
MAT204	Medical Office Management	3	MAT200 and MAT201 and Co-MAT203 and Co-MAT205 and Co-MAT206	
MAT205	Medical Assisting Seminar	1	MAT200 and MAT201 and Co-MAT203 and Co-MAT204 and Co-MAT206	
MAT206	Medical Assisting Practicum	2	MAT200 and MAT201 and Co-MAT203 and Co-MAT204 and Co-MAT205	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
BIO101	Introduction to Anatomy & Physiology^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
COM122	Interpersonal Communications	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH105 or MTH124 or MTH125	Math for Allied Health^ or Statistics ^ $\Omega$ or College Algebra^ $\Omega$	3 or 3 or 4	Check for prerequisites	
NTR121	Nutrition for Health^	3	IDS102 or Proficiency	
PSY121	General Psychology^	3	IDS102 or Proficiency	
GER121	Introduction to Gerontology	3		
MAT103	Medical Law and Ethics	3		
	Elective*	3-4		
	Total	34-36		
	TOTAL CREDIT HOURS	65-67		

<sup>^</sup>Based on SSC placement scores.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Ω MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Choose from the following options: (MAT234 and MAT235), GER 122, Sociology offering, or Psychology offering. MAT234 requires MAT235 in order to apply for the phlebotomy certification exam. MAT235 requires an additional semester.

Effective Summer 2020

#### **MEDICAL ASSISTING - Night Track**

#### 3100

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BIO101	Introduction to Anatomy & Physiology <sup>^</sup>	3	IDS102 or Proficiency
BIO125	Medical Terminology	3	
MAT100	Medical Assisting I	5	Co-MAT101
MAT101	Medical Office Procedures	<u>4</u>	Co-MAT100
		16	
Second Semester			
MTH105	Math for Allied Health^	3	
or	or	or	Check for prerequisites
MTH124	Statistics ^ Ω	3	
or	or	or	
MTH125	College Algebra <sup>^</sup> Ω	4	
MAT102	Medical Assisting II	5	MAT100 and MAT101
MAT103	Medical Law and Ethics	3	
ENG124	College Composition^	<u>3</u>	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
		14-15	,
Third Semester (Summer)			
COM122	Interpersonal Communication	3	
PSY121	General Psychology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		6	,
Fourth Semester			
MAT200	Medical Lab Procedures for Medical Assisting	3	MAT102
MAT201	Insurance for Medical Assisting	3	MAT102
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
GER121	Introduction to Gerontology	3	
Elective*	63	3-4	
		15-16	
Fifth Semester			
MAT203	Medical Assisting III	2	MAT200 and MAT201 and Co-MAT204 and Co-MAT205 and Co-MAT206
MAT204	Medical Office Management	3	MAT200 and MAT201 and Co-MAT203
			and Co-MAT205 and Co-MAT206
MAT202	Pharmacology/Administration of Medications	3	MAT102
MAT206	Medical Assisting Practicum	2	MAT200 and MAT201 and Co-MAT203 and Co-MAT204 and Co-MAT205
MAT205	Medical Assisting Seminar	1	MAT200 and MAT201 and Co-MAT203 and Co-MAT204 and Co-MAT206
NTR121	Nutrition for Health^	<u>3</u> 14	IDS102 or Proficiency
	TOTAL CREDITS	65-67	

<sup>^</sup>Based on SSC placement scores.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Ω MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

<sup>\*</sup>Choose from the following options: (MAT234 and MAT235), GER 122, Sociology offering, or Psychology offering. MAT234 requires MAT235 in order to apply for the phlebotomy certification exam. MAT235 requires an additional semester.



### ASSOCIATE OF APPLIED SCIENCE PHYSICAL THERAPIST ASSISTANT

2021 Catalog

Effective Summer 2020

3150 Pre-3151

WAP

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PTA118	Principles of Patient Care	1	Co-PTA118L	
PTA118L	Principles of Patient Care Lab	2	Co-PTA118	
PTA119	Professional Values and Ethics	1	Co-PTA118	
PTA120	Introduction to Orthopedics	2	PHY101 and Co-PTA120L and Co-PTA221	
PTA120L	Introduction to Orthopedics Lab	1	Co-PTA120	
PTA125	Professional Clinical Practice for the PTA	1	PTA119 and Co-PTA138	
PTA136	Neurological Foundations for Rehabilitation	1	BIO122 or BIO123	
PTA138	Data Collection	1	PTA221 and Co-PTA125 and Co-PTA138L	
PTA138L	Data Collection Lab	2	Co-PTA138	
PTA221	PTA Procedures I	5	PTA118 and Co-PTA120	
PTA223	PTA Procedures III	2	PTA224 and PTA225	
PTA224	PTA Procedures II Ortho	3	EXS120 and PTA120 and BIO124	
PTA225	PTA Procedures II Neuro	3	BIO124 and PTA136 and Co-PTA248	
PTA228	Seminar I	1	PTA125 and Co-PTA247	
PTA230	Seminar II	1	PTA228 and Co-PTA257 and Co-PTA267	
PTA247	Clinical Experience I	2	PTA125 and Co-PTA228	
PTA248	Multisystems	1	PTA138 and Co-PTA225 and Co-PTA248L	
PTA248L	Multisystems Lab	1	Co-PTA248	
PTA257	Clinical Experience II	2	PTA247 and Co-PTA230	
PTA267	Clinical Experience III	2	Co-PTA230	
	Total	35		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO123	Principles of Human Structure and Function (lab)#	5	BIO101 or Proficiency	
BIO124	Human Diseases	3	BIO122 or BIO123	
ENG124	College Composition^	3	Co-ENG024 or ENG011 or Proficiency	
EXS110	Anatomy of Exercise	3	Co-BIO122 or Co-BIO123 and Co-EXS110L	
EXS110L	Anatomy of Exercise Lab	1	Co-EXS110	
EXS120	Exercise Applications	2	EXS110 and Co-EXS120L	
EXS120L	Exercise Applications Lab	1	Co-EXS120	
MTH124	Statistics^*	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PSY121	General Psychology^	3	IDS102 <b>or</b> Proficiency	
PSY123	Human Growth and Development	3	PSY121	
	Total	32		
	TOTAL CREDIT HOURS	67		

<sup>^</sup>Based on SSC placement scores.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

This program requires an application (separate from the College).

Please see your advisor to discuss the application process.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

<sup>\*</sup>MTH125 College Algebra or MTH105 Math for Allied Health may be substituted for MTH124 Statistics

Effective Summer 2020

#### PHYSICAL THERAPIST ASSISTANT

3150

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BIO123	Principles of Human Structure and Function (lab)#	5	BIO101 or Proficiency
EXS110	Anatomy of Exercise	3	Co-BIO122 or Co-BIO123 and Co-EXS110L
EXS110 EXS110L	Anatomy of Exercise  Anatomy of Exercise Lab	1	Co-BIO122 or Co-BIO123 and Co-EXS110L Co-EXS110
EASTIUL	Anatomy of Exercise Lab	1	
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)
PTA118	Principles of Patient Care	1	Co-PTA118L
PTA118L	Principles of Patient Care Lab	2	Co-PTA118
PTA119	Professional Values and Ethics	1	Co-PTA118
	1101000101ML VALUES MIG ZIMES	18	601111110
Second Semester		10	
BIO124	Human Diseases	3	BIO122 or BIO123
EXS120	Exercise Applications	2	EXS110 and Co-EXS120L
EXS120L	Exercise Applications Lab	1	Co-EXS120
			(MTH024 or MTH025 or Proficiency) or MTH105 or
MTH124	Statistics^*	3	MTH107 and (IDS102 or Proficiency)
PTA120	Introduction to Orthopedics	2	PHY101 and Co-PTA120L and Co-PTA221
PTA120L	Introduction to Orthopedics Lab	1	Co-PTA120
PTA221	PTA Procedures I	<u>5</u>	PTA118 and Co-PTA120
1 171221	1 171 Toccuties 1	<u>=</u> 17	1 171110 and CO 1 171120
Third Semester		1,	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
PTA136	Neurological Foundations for Rehabilitation	1	BIO122 or BIO123
PTA138	Data Collection	1	PTA221 and Co-PTA125 and PTA138L
PTA138L	Data Collection Lab	2	Co-PTA138
PTA125	Professional Clinical Practice for the PTA	<u>1</u>	PTA119 and Co-PTA138
1 171123	1101essional emilical ractice for the 1171	11	1 17117 and CO 1 171130
Fourth Semester			
PSY123	Human Growth and Development	3	PSY121
PTA224	PTA Procedures II Ortho	3	EXS120 and PTA120 and BIO124
PTA225	PTA Procedures II Neuro	3	BIO124 and PTA136 and Co-PTA248
PTA228	Seminar I	1	PTA125 and Co-PTA247
PTA247	Clinical Experience I	2	PTA125 and Co-PTA228
PTA248	Multisystems	1	PTA138 and Co-PTA225 and Co-PTA248L
PTA248L	Multisystems Lab	<u>1</u>	Co-PTA248
11112102	munisystems zue	1 <u>+</u>	00111210
Fifth Semester			
PTA223	PTA Procedures III	2	PTA224 and PTA225
PTA230	Seminar II	1	PTA228 and Co-PTA257 and Co-PTA267
PTA257	Clinical Experience II	2	PTA247 and Co-PTA230
PTA267	Clinical Experience III	2	Co-PTA230
	Chinear Experience III	$\frac{2}{7}$	CO 1 111230
	TOTAL CREDITS	67	
D 1 000 1	TOTAL CHIDITO	0,	

<sup>^</sup>Based on SSC placement scores.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

<sup>\*</sup>MTH125 College Algebra or MTH105 Math for Allied Health may be substituted for MTH124 Statistics



### WAP

# ASSOCIATE OF APPLIED SCIENCE RESPIRATORY CARE

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

**3200** 

Pre-3202

Health and Public Services Division

Respiratory, Laboratory, and Surgical Technology Dept.

PRE-RESPIRATORY CARE CREDITS AS LISTED BELOW:					
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year	
MTH105	Math for Allied Health^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency		
CHM121	General, Organic and Biological Chemistry I^##	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107		
TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year	
RCT121	Introduction to Respiratory Care ▲-	2	Pre-Co-BIO122 or BIO123 and Co-RCT121L		
RCT121L	Introduction to Respiratory Care Laboratory ▲-	1	Co-RCT121		
RCT122	Medical Gas Administration ▲ -	2	Co-RCT122L		
RCT122L	Medical Gas Administration Laboratory ▲-	1	Co-RCT122		
RCT124	Respiratory Care Pharmacology ▲-	2			
RCT123	Airway Management Procedures ▲+	2	RCT124 and Co-RCT123L		
RCT123L	Airway Management Procedures Laboratory ▲+	1	Co-RCT123		
RCT125C	Practicum I Clinical ▲+	2	RCT124 and Co-RCT125		
RCT125	Practicum I Seminar ▲+	1	Co-RCT125C		
RCT126	Critical Care ▲*	2	RCT123 and Co-RCT126L		
RCT126L	Critical Care Laboratory ▲*	1	Co-RCT126		
RCT128C	Practicum II Clinical ▲*	1	RCT123 and RCT125C and Co-RCT128		
RCT128	Practicum II Seminar ▲*	1	Co-RCT128C		
RCT224C	Practicum III Clinical ▲-	2	RCT126 and RCT128C and Co-RCT224		
RCT224	Practicum III Seminar ▲-	1	Co-RCT224C		
RCT226	Advanced Respiratory Care Procedures Laboratory ▲-	1	RCT126		
RCT227	Neonatal/Pediatrics for Respiratory Care ▲-	2	RCT126 and Co-RCT227L		
RCT227L	Neonatal/Pediatrics for Respiratory Care Laboratory ▲-	1	Co-RCT227		
RCT223	Patient Assessment and Monitoring ▲+	3	RCT220		
RCT225C	Practicum IV Clinical ▲+	3	RCT224C and RCT226 and RCT227 and (Co- RCT225 and Co-RCT225L)		
RCT225	Practicum IV Seminar ▲ +	1	Co-RCT225C and Co-RCT225L		
RCT225L	Practicum IV Laboratory ▲+	1	Co-RCT225C and Co-RCT225		
	TOTAL	34			

See last page for footnotes

2021 Catalog	RESPIRATORY CARE	3200
Effective Summer 2020	KLSFIKATOKT CAKL	3200

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ENG124	College Composition ^	3	Co-ENG024 or Co-ENG011 or Proficiency	
BIO123	Principles of Human Structure & Function * # (lab)	5	BIO101 or BIO127	
BIO125	Medical Terminology	3		
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
RCT129	Respiratory Diseases ▲+	3	RCT124	
RCT220	Cardiopulmonary A & P▲-	4	(BIO122 or BIO123) and RCT126	
	Psychology or Sociology Elective^^^	3	Check for prerequisites	
	Total	26		
	TOTAL CREDIT HOURS	67		

See last page for footnotes

#### **RESPIRATORY CARE**

3200

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Each student should make an appointment to see their advisor every semester before registering for classes. Please have your registration form completed, including the courses you wish to take, for this meeting.

#### Course Sequence

The semester-by-semester listing below gives the normal scheduling option for full-time associate degree students who plan to finish in two years. Some courses can be scheduled as beginning courses in <u>other</u> semesters depending upon course availability and advisor's recommendation. **Respiratory Care courses must be taken in the order listed below.** 

First Semester	St. Lat S. and Sourism to	Credit Hours	Pre- and Co-requisites
SSC101 RCT121	Student Success Seminar^^	2	Take first semester Pre-Co-BIO122 or BIO123 and
RC1121	Introduction to Respiratory Care ▲-	2	Co-RCT121L
RCT121L	Introduction to Respiratory Care Laboratory ▲-	1	Co-RCT121
RCT122	Medical Gas Administration ▲-	2	Co-RCT122L
RCT122L	Medical Gas Administration Laboratory ▲-	1	Co-RCT122
RCT124	Respiratory Care Pharmacology ▲-	2	
BIO123	Principles of Human Structure & Function (lab) ▲#	<u>5</u>	BIO101 or BIO127
		14	
Second Semester			
BIO125	Medical Terminology	3	
RCT123	Airway Management Procedures ▲+	2	RCT124 and Co-RCT123L
RCT123L	Airway Management Procedures Laboratory ▲+	1	Co-RCT123
RCT125	Practicum I Seminar ▲+	1	Co-RCT125C
RCT125C	Practicum I Clinical ▲+	2	RCT124 and Co-RCT125
RCT129	Respiratory Diseases ▲+	<u>3</u>	RCT124
		12	
<b>G</b>			
Summer RCT126	Critical Care <b>▲</b> *	2	RCT123 and Co-RCT126L
RCT126 RCT126L	Critical Care Laboratory ▲*	2	Co-RCT126
RCT126L RCT128	Practicum II Seminar ▲*	1 1	Co-RCT120 Co-RCT128C
RCT128 RCT128C	Practicum II Clinical ▲*	1	RCT123 and RCT125C and
KC1128C	Practicum ii Cimicai •	1	Co-RCT128
ENG124	College Composition <sup>^</sup>	<u>3</u> <b>8</b>	Co-ENG024 or Co-ENG011 or
		8	Proficiency
Third Semester			
Psychology or		3	Check for Pre-requisites
Sociology		J	
Elective^^^			
RCT220	Cardiopulmonary A&P▲-	4	(BIO122 or BIO123) and RCT126
RCT224	Practicum III Seminar ▲-	1	Co-RCT224C
RCT224C	Practicum III Clinical ▲-	2	RCT126 and RCT128C and
110122.0		_	Co-RCT224
RCT226	Advanced Respiratory Care Procedures Laboratory ▲-	1	RCT126
RCT227	Neonatal/Pediatrics for Respiratory Care ▲-	2	RCT126 and Co-RCT227L
RCT227L	Neonatal/Pediatrics for Respiratory Care	<u>1</u>	Co-RCT227
	Laboratory ▲-	14	

See last page for footnotes

Fourth Semester BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123
RCT223 RCT225 RCT225L RCT225C	Patient Assessment and Monitoring ▲ + Practicum IV Seminar ▲ + Practicum IV Laboratory ▲ + Practicum IV Clinical ▲ +	3 1 1 3 12	or BIO141 RCT220 Co-RCT225C and Co-RCT225L Co-RCT225C and Co-RCT225 RCT224C and RCT226 and RCT227 and (Co-RCT225 and Co-RCT225L)
	TOTAL CREDITS	67	

<sup>^</sup>Based on SSC placement scores.

##CHM141 can be substituted for CHM121.

- ▲+ Spring only courses. Please see your academic advisor for availability.
- ▲- Fall only courses. Please see your academic advisor for availability.
- ▲\* Summer only courses. Please see your academic advisor for availability.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>^^^</sup>Choose from an Psychology or Sociology elective

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.



## ASSOCIATE OF APPLIED SCIENCE OCCUPATIONAL THERAPY ASSISTANT

2021 Catalog

Effective Summer 2020

3250

Pre-3251

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Occupational Therapy Assistant Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
OTA121	Foundations of Occupational Therapy	3	Co-OTA122	
OTA122	Therapeutic Media	3	Co-OTA121	
OTA123	Psychosocial Aspects in OT	4	OTA121 and OTA122 and PSY121 and Co-OTA124 and Pre-Co-PSY221	
OTA124	Psychosocial Clinical Experience	3	OTA121 and OTA122 and Co-OTA123	
OTA221	Developmental Aspects in OT	4	(BIO123 or BIO122) and OTA123 and OTA124 and Co-OTA222 and Pre-Co-PTA226 and Pre-Co-OTA223	
OTA222	Developmental Clinical Experience	3	(BIO123 or BIO122) and OTA123 and OTA124 and Co-OTA221 and Pre-Co-PTA226 and Pre-Co-OTA223	
OTA224	OT in Physical Dysfunction	4	OTA221 and OTA222 and Co-OTA225 and Pre-Co-BIO124	
OTA225	Physical Dysfunction Clinical Experience	3	OTA222 and OTA221 and Co-OTA224	
OTA226	OTA Seminar	2	OTA224 and OTA225 and Co-OTA227 and Co-OTA228	
OTA227	Clinical Application I	3	OTA224 and OTA225 and Co-OTA226 and Co-OTA228	
OTA228	Clinical Application II	3	OTA224 and OTA225 and Co-OTA226 and Co-OTA227	
	Total	35		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO123	Principles of Human Structure & Function (lab)#	5	BIO101 or Proficiency	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
OTA223	Life Span Development	5	ENG124	
MTH124	Statistics <sup>^</sup> Ω	3		
or MTH125 or	or College Algebra^ Ω	or 4 or	Check for prerequisites	
MTH105	Math for Allied Health	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PSY221	Abnormal Psychology	3	PSY121 and Co-OTA123	
PTA226	Functional Anatomy	4	BIO122 or BIO123	
SOC121	Sociology^	3	IDS102 or Proficiency	
	Total	35-36		
	TOTAL CREDIT HOURS	70-71		

<sup>^</sup>Based on SSC placement scores.

Ω MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

\*Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

#### **OCCUPATIONAL THERAPY ASSISTANT**

3250

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
OTA121	Foundations of Occupational Therapy	3	Co-OTA122
OTA122	Therapeutic Media	3	Co-OTA121
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
BIO125	Medical Terminology	<u>3</u>	·
	•	15	
Second Semester			
MTH124	Statistics <sup>Λ</sup> Ω	3	
or	or	or	
MTH125	College Algebra <sup>Δ</sup> Ω	4	Check for Pre-requisites
or	or	or	
MTH105	Math for Allied Health	3	
BIO123	Principles of Human Structure and Function (lab)#	5	BIO101 or Proficiency
OTA123	Psychosocial Aspects in OT	4	OTA121 and OTA122 and PSY121
0111123	1 sychosocial 7 ispects in O1	•	and Co-OTA124 and Pre-or-Co-PSY221
OTA124	Psychosocial Clinical Experience	3	OTA121 and OTA122 and Co-OTA123
PSY221	Abnormal Psychology	<u>3</u>	PSY121 and Co-OTA123
151221	Authornian I Sychology	18-19	151121 and Co-O171125
Third Semester		10 17	
OTA221	Developmental Aspects in OT	4	(BIO123 or BIO122) and OTA123
011121	Dovelopmental Lispools in C I	•	and OTA124 and Co-OTA222 and
			Pre-Co-PTA226 and Pre-Co-OTA223
OTA222	Developmental Clinical Experience	3	(BIO123 or BIO122) <b>and</b> OTA123
0111222	Developmental Emmeal Experience	3	and OTA124 and Co-OTA221 and
			Pre-Co-PTA226 and Pre-Co-OTA223
OTA223	Life Span Development	5	ENG124
PTA226	Functional Anatomy	<u>4</u>	BIO122 or BIO123
1 111220	Tunetional Thatomy	1 <del>.</del>	B10122 01 B10123
Fourth Semester		10	
SOC121	Sociology^	3	IDS102 or Proficiency
BIO124	Human Diseases	3	BIO122 or BIO123
OTA224	OT in Physical Dysfunction	4	OTA221 and OTA222 and Co-OTA225
	<del></del> - ,		and Pre-Co-BIO124
OTA225	Physical Dysfunction Clinical Experience	<u>3</u>	OTA221 and OTA222 and Co-OTA224
	, , <del>-</del>	13	
Fifth Semester			
OTA226	OTA Seminar	2	OTA224 and OTA225 and
		_	Co-OTA227 and Co-OTA228
OTA227	Clinical Application I	3	OTA224 and OTA225 and Co-OTA226 and
×		2	Co-OTA228
OTA228	Clinical Application II	<u>3</u>	OTA224 and OTA225 and Co-OTA226 and
	rr	<del>-</del>	Co-OTA227
		8	
	TOTAL CREDITS	70-71	

<sup>^</sup>Based on SSC placement scores.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

 $<sup>\</sup>Omega\,MTH125\,\,College\,\,Algebra\,\,or\,\,MTH124\,\,Statistics\,\,should\,\,only\,\,be\,\,taken\,\,by\,\,students\,\,planning\,\,to\,\,transfer\,\,to\,\,a\,\,four-year\,\,institution.$ 

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.



### ASSOCIATE OF APPLIED SCIENCE MEDICAL LABORATORY TECHNOLOGY

2021 Catalog Effective Summer 2020

3300

Pre-3301

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Respiratory, Laboratory, and Surgical Technology Dept.

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MLT121	Fundamentals of Laboratory Techniques ▲-	2		
MLT122	Urinalysis and Body Fluids ▲*	3	MLT124	
MLT123	Hematology I ▲ -	3		
MLT124	Hematology II ▲+	3	MLT123	
MLT125	Immunohematology ▲+	5	MLT126	
MLT126	Immunology/Serology ▲ -	3		
MLT223	Clinical Microbiology ▲ -	5	BIO221 and MLT126	
MLT225	MLT Applications ▲+	3	MLT125 and MLT222 and MLT223	
MLT226	MLT Directed Practice ▲+	6	MLT225 and Co-MLT227	
MLT227	MLT Seminar ▲+	1	MLT223 and MLT225 and Co-MLT226	
	Total	34		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO123	Principles of Human Structure & Function (lab) ▲#	5	BIO101 or Proficiency	
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM121	General, Organic, and Biological Chemistry I^	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM122	General, Organic, and Biological Chemistry II	4	CHM121	
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
MLT222	Clinical Chemistry ▲ -	4	(BIO122 or BIO123) and CHM122 and MLT121 and MLT122	
	Social Science Elective*	3	Check for prerequisites	
	Total	31		
	TOTAL CREDIT HOURS	65		

<sup>^</sup>Based on SSC placement scores.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

A Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>\*</sup>Choose from sociology or psychology offerings

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲\*</sup> Summer only courses. Please see your academic advisor for availability.

#### MEDICAL LABORATORY TECHNOLOGY

3300

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101 BIO123 CHM121	Student Success Seminar^^ Principles of Human Structure & Function (lab) *# General, Organic, and Biological Chemistry I^	Credit Hours  1  5  4	Pre- and Co-requisites  Take first semester  BIO101 or Proficiency (CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107
MLT121	Fundamentals of Laboratory Techniques ▲-	2	
MLT126	Immunology/Serology ▲ -	3	
MLT123	Hematology I▲-	<u>3</u>	
		18	
Second Semester			
CHM122	General, Organic, and Biological Chemistry II	4	CHM121
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency
MLT124	Hematology II ▲+	3	MLT123
MLT125	Immunohematology ▲+	<u>5</u>	MLT126
		15	
Summer			
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141
MLT122	Urinalysis and Body Fluids ▲*	$\frac{3}{7}$	MLT124
		7	
Fourth Semester			
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
			Proficiency
MLT222	Clinical Chemistry ▲ -	4	(BIO122 or BIO123) and
			CHM122 and MLT121
			and MLT122
MLT223	Clinical Microbiology ▲ -	<u>5</u> <b>12</b>	BIO221 and MLT126
		12	
<u>Fifth Semester</u>			a
Social Science Elect		3	Check for prerequisites
MLT225	MLT Applications ▲+	3	MLT125 and MLT222
MI TOO	MED' (ID (CA)		and MLT223
MLT226	MLT Directed Practice ▲+	6	MLT225 and Co-MLT227
MLT227	MLT Seminar ▲ +	<u>1</u>	MLT223 and MLT225 and Co-MLT226
		13	anu CO-MIL 1 220
	TOTAL CREDITS	65	
	TOTAL CREDITS	0.5	

<sup>^</sup>Based on SSC placement scores.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

A Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>\*</sup>Choose from sociology or psychology offerings

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲\*</sup> Summer only courses. Please see your academic advisor for availability.



# ONE-YEAR CERTIFICATE PRACTICAL NURSING

2021 Catalog

Effective Summer 2020

3357 Pre-3375

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when

students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Nursing Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PNC100	Nursing 1	4	Admission to program <b>and</b> (Co-BIO101 <b>and</b> Co-PNC101)	
PNC120	Nursing 2	5	PNC100 and PNC101 and Co-BIO101 and Co-PNC121	
PNC130	Nursing 3	9	PNC120 and PNC121	
PNC140	Nursing 4	8	PNC130	
PNC101	Pharmacology 1	3	Admission to program <b>and</b> Co-BIO101 <b>and</b> Co-PNC100	
PNC121	Pharmacology 2	3	PNC100 and PNC101 and Co-BIO101 and Co-PNC120	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
	Total	4		-
	TOTAL CREDIT HOURS	36		

<sup>^</sup>Based on SSC placement score.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

2021 Catalog	
Effective Summer 2020	

#### **PRACTICAL NURSING**

3357

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time certificate students who plan to finish in one year.

First Semester		Credit Hours	Pre- and Co-requisites
BIO101	Intro to Anatomy and Physiology^	3	IDS102 or Proficiency
SSC101	Student Success Seminar^^	1	Take first semester
First Semester—	-First 8 Weeks		
PNC100	Nursing 1	4	Admission to program <b>and</b> (Co-BIO101 <b>and</b> Co-PNC101)
PNC101	Pharmacology 1	3	Admission to program and Co-BIO101 and Co-PNC100
First Semester—	-Second 8 Weeks		
PNC120	Nursing 2	5	PNC100 and PNC101 and Co-BIO101 and Co-PNC121
PNC121	Pharmacology 2	<u>3</u>	PNC100 and PNC101 and Co-BIO101 and Co-PNC120
		19	and co riverzo
Second Semeste	r—First 8 Weeks		
PNC130	Nursing 3	9	PNC120 and PNC121
Second Semeste	r—Second 8 Weeks		
PNC140	Nursing 4	<u>8</u>	PNC130
		17	
	TOTAL CREDITS	36	

<sup>^</sup>Based on SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.



### ASSOCIATE OF APPLIED SCIENCE **CONCEPT-BASED NURSING**

2021 Catalog

Effective Summer 2020

3358

Pre-3361

students change their major or request the change in writing.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Nursing Department

#### A student cannot register for NSG courses until accepted into the program.

PRE-NURSING CREDITS AS LISTED BELOW:						
NON-TECH Course Number	Course Title Credits Pre- and Co-Requisites Completed Sem./Year					
SSC101	Student Success Seminar^^	1	Take first semester			
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency			
BIO101	Introduction to Anatomy and Physiology	3	IDS102 or Proficiency			
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency			
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency			
	TOTAL CREDIT HOURS	13				

See last page for footnotes

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NSG100	Fundamental Concepts of Nursing Practice Across the Lifespan (lecture)	3	Admission to Program and Co-NSG100L and Co-NSG100C and Co-NSG101	
NSG100L	Fundamental Concepts of Nursing Practice Across the Lifespan (lab)	1	Admission to Program and Co-NSG100 and Co- NSG100C and Co-NSG101	
NSG100C	Fundamental Concepts of Nursing Practice Across the Lifespan (clinical)	2	Admission to Program and Co-NSG100 and Co- NSG100L and Co-NSG101	
NSG101	Clinical Reasoning in Current Nursing Practice	2	(Co-NSG100 and Co-NSG100L and Co-NSG100C) or (Co-NSG122 and Co-NSG122L and Co-NSG122C) or (Co-NSG123 and Co-NSG123L and Co-NSG123C)	
NSG121	Concepts of Nursing Practice in the Care of Adult Patients with Uncomplicated Conditions (lecture)	2	(BIO121 or BIO123) and NSG100 and NSG100L and NSG100C and NSG101 and Co- NSG121L and Co-NSG121C	
NSG121L	Concepts of Nursing Practice in the Care of Adult Patients with Uncomplicated Conditions (lab)	0.5	(BIO121 or BIO123) and NSG100 and NSG100L and NSG100C and NSG101 and Co- NSG121 and Co-NSG121C	
NSG121C	Concepts of Nursing Practice in the Care of Adult Patients with Uncomplicated Conditions (clinical)	1.5	(BIO121 or BIO123) and NSG100 and NSG100L and NSG100C and NSG101 and Co- NSG121 and Co-NSG121L	
NSG141	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (lecture)	1.5	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co- NSG141L and Co-NSG141C	
NSG141L	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (lab)	0.5	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co- NSG141 and Co-NSG141C	

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TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NSG141C	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (clinical)	1	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141 and Co-NSG141L	
NSG221	Concepts of Nursing Practice in the Care of the Reproducing and Developing Family (lecture)	2.5	NSG141 <b>and</b> NSG141L <b>and</b> NSG141C <b>and</b> Co-NSG221L <b>and</b> Co-NSG221C	
NSG221L	Concepts of Nursing Practice in the Care of the Reproducing and Developing Family (lab)	0.5	NSG141 and NSG141L and NSG141C and Co-NSG221 and Co-NSG221C	
NSG221C	Concepts of Nursing Practice in the Care of the Reproducing and Developing Family (clinical)	1	NSG141 and NSG141L and NSG141C and Co-NSG221 and Co-NSG221L	
NSG241	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions (lecture)	3	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241L and Co-NSG241C	
NSG241L	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions (lab)	0.5	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241 and Co-NSG241C	
NSG241C	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions (clinical)	1.5	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241 and Co-NSG241L	
NSG261	Concepts of Nursing Practice in the Care of Patients Across the Lifespan with Complex Conditions (lecture)	5	BIO221 and PSY123 and NSG221 and NSG221L and NSG221C and NSG241 and NSG241L and NSG241C and Co-NSG261L and Co-NSG261C	
NSG261L	Concepts of Nursing Practice in the Care of Patients Across the Lifespan with Complex Conditions (lab)	1	BIO221 and PSY123 and NSG221 and NSG221L and NSG221C and NSG241 and NSG241L and NSG241C and Co-NSG261 and Co-NSG261C	
NSG261C	Concepts of Nursing Practice in the Care of Patients Across the Lifespan with Complex Conditions (clinical)	3	BIO221 and PSY123 and NSG221 and NSG221L and NSG221C and NSG241 and NSG241L and NSG241C and Co-NSG261 and Co-NSG261L	
	Total	33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy and Physiology I (lab) A	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
PSY123	Human Growth and Development	3	PSY121	
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency	
	Total	18		
See lest page for fee	TOTAL CREDIT HOURS	64		

See last page for footnotes

#### **CONCEPT BASED NURSING**

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### A student cannot register for NSG courses until accepted into the program.

Pre-Nursing Courses		Credit I	
SSC101	Student Success Seminar^^	1	Take first semester
MTH124	Statistics <sup>^</sup>	3	MTH022 or Pre-Co-MTH024 or Proficiency
BIO101	Introduction to Anatomy and Physiology	3	IDS102 or Proficiency
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or
			Proficiency
		13	
<u>First Semester</u>			
BIO121	Anatomy and Physiology I (lab) ▲	4	BIO101 or Proficiency
NSG100	Fundamental Concepts of Nursing Practice	3	Admission to Program and Co-
	Across the Lifespan (lecture)	]	NSG100L and Co-NSG100C and Co-NSG101
NSG100L	Fundamental Concepts of Nursing Practice	1	Admission to Program and Co-
	Across the Lifespan (lab)		NSG100 and Co-NSG100C and Co-NSG101
NSG100C	Fundamental Concepts of Nursing Practice	2	Admission to Program and Co-
	Across the Lifespan (clinical)		NSG100 and Co-NSG100L and Co-NSG101
NSG101	Clinical Reasoning in Current Nursing Practice	<u>2</u>	(Co-NSG100 and Co-NSG100L and Co-
			NSG100C) or (Co-NSG122 and Co-NSG122L
			and Co-NSG122C) or (Co-NSG123 and
			Co-NSG123L and Co-NSG123C)
		12	,
Second Semester			
NSG121	Concepts of Nursing Practice in the Care of	2	(BIO121 or BIO123) and NSG100 and
	Adult Patients with Uncomplicated Conditions (lecture)		NSG100L and NSG100C and NSG101 and
	•		Co-NSG121L and Co-NSG121C
NSG121L	Concepts of Nursing Practice in the Care of	0.5	(BIO121 or BIO123) and NSG100 and
	Adult Patients with Uncomplicated Conditions (lab)		NSG100L and NSG100C and NSG101 and
	•		Co-NSG121 and Co-NSG121C
NSG121C	Concepts of Nursing Practice in the Care of	1.5	(BIO121 or BIO123) and NSG100 and
	Adult Patients with Uncomplicated Conditions (clinical)		NSG100L and NSG100C and NSG101 and
			Co-NSG121 and Co-NSG121L
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
PSY123	Human Growth and Development	3	PSY121
NSG141	Concepts of Nursing Practice in the Care	1.5	(BIO121 or BIO123) <b>and</b>
	of Patients with Mental Illness Issues (lecture)		(NSG100 and NSG100L and NSG100C) or
			(NSG122 and NSG122L and NSG122C) or
			(NSG123 and NSG123L and NSG123C) and
		]	NSG101 and Co-NSG141L and Co-NSG141C
NSG141L	Concepts of Nursing Practice in the Care	0.5	(BIO121 or BIO123) and (NSG100
	of Patients with Mental Illness Issues (lab)		and NSG100L and NSG100C) or
			(NSG122 and NSG122L and NSG122C) or
			(NSG123 and NSG123L and NSG123C) and
			NSG101 and Co-NSG141 and Co-NSG141C

See last page for footnotes

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NSG141C	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (clinical)	<u>1</u> 14	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141 and Co-NSG141L
Third Semester			
NSG221	Concepts of Nursing Practice in the Care of the	2.5	NSG141 and NSG141L and NSG141C
NGCOOL	Reproducing and Developing Family (lecture)	0.5	and Co-NSG221L and Co-NSG221C
NSG221L	Concepts of Nursing Practice in the Care of the Reproducing and Developing Family (lab)	0.5	NSG141 and NSG141L and NSG141C and Co-NSG221 and Co-NSG221C
NSG221C	Concepts of Nursing Practice in the Care of the	1	NSG141 and NSG141L and NSG141C
1,502210	Reproducing and Developing Family (clinical)	-	and Co-NSG221 and Co-NSG221L
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141
NSG241	Concepts of Nursing Practice in the Care of	3	BIO122 and NSG141 and NSG141L and
	Adult Patients with Stable and Unstable Acute Conditions		NSG141C and Co-NSG241L and
NICCOALL	(lecture)	0.5	Co-NSG241C
NSG241L	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions	0.5	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241 and
	(lab)		Co-NSG241C
NSG241C	Concepts of Nursing Practice in the Care of	1.5	BIO122 and NSG141 and NSG141L and
	Adult Patients with Stable and Unstable Acute Conditions		NSG141C and Co-NSG241 and
	(clinical)		Co-NSG241L
		13	
Fourth Semester			
NSG261	Concepts of Nursing Practice in the Care of	5	BIO221 and PSY123 and NSG221 and
	Patients Across the Lifespan with Complex Conditions		NSG221L and NSG221C and NSG241
	(lecture)		and NSG241L and NSG241C and
			Co-NSG261L and Co-NSG261C
NSG261L	Concepts of Nursing Practice in the Care of	1	BIO221 and PSY123 and NSG221 and
11502012	Patients Across the Lifespan with Complex Conditions	•	NSG221L and NSG221C and NSG241 and
	(lab)		NSG241L and NSG241C and Co-NSG261
			and Co-NSG261C
NSG261C	Concepts of Nursing Practice in the Care of	3	BIO221 and PSY123 and NSG221 and
	Patients Across the Lifespan with Complex Conditions		NSG221L and NSG221C and NSG241 and
	(clinical)		NSG241L and NSG241C and Co-NSG261 and Co-NSG261L
SOC121	Sociology	<u>3</u>	IDS101 or Proficiency
500121	Sociologi	12	1155101 Of 110Heleney

#### TOTAL CREDITS 64

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required. All applications received after March 1, 2015 will be considered on a selective admission basis.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^</sup>Based on SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

ABecause of strong emphasis on science in this major, applicants must have successfully completed Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed prerequisites.



# ASSOCIATE OF APPLIED SCIENCE CONCEPT-BASED RN COMPLETION FOR PARAMEDICS

**2021 Catalog**Effective Summer 2020

3359

Pre-3362

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Nursing Department

A Paramedic admitted to Stark State College's Concept-Based Nursing program with advanced standing admission meets the credit requirements for graduation in the following way:

- 10 credits for nursing courses granted upon successful completion of NSG122, NSG122L and NSG122C, achieve a predetermined passing score on the required program admission test, a valid National Registry paramedic certification, or state of Ohio paramedic certification.
- 41 credits for 3 semesters of course work (see listing below).
- 13 hours of prerequisite credits (see listing below).

PRE-NURSING CREDITS AS LISTED BELOW:				
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy and Physiology I (lab) ▲	4	BIO101 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
	TOTAL CREDIT HOURS	13		

THREE SEMESTERS OF COURSEWORK AS LISTED BELOW:				
TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NSG122	Transition for the Paramedic (lecture)	2	Admission to Program and Co-NSG122L and Co-NSG122C and Co-NSG101	
NSG122L	Transition for the Paramedic (lab)	0.5	Admission to Program <b>and</b> Co-NSG122 <b>and</b> Co-NSG122C <b>and</b> Co-NSG101	
NSG122C	Transition for the Paramedic (clinical)	1.5	Admission to Program <b>and</b> Co-NSG122 <b>and</b> Co-NSG122L <b>and</b> Co-NSG101	
NSG101	Clinical Reasoning in Current Nursing Practice	2	(Co-NSG100 and Co-NSG100L and Co-NSG100C) or (Co-NSG122 and Co-NSG122L and Co-NSG122C) or (Co-NSG123 and Co-NSG123L and Co-NSG123C)	
NSG141	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (lecture)	1.5	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141L and Co-NSG141C	
NSG141L	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (lab)	0.5	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141 and Co-NSG141C	
NSG141C	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (clinical)	1	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and	

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### **CONCEPT-BASED RN COMPLETION FOR PARAMEDICS**

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	Total TOTAL CREDIT HOURS	14 54		
SOC121	Sociology^	3	IDS102 or proficiency	
PSY123	Human Growth and Development	3	PSY121	
BIO221	Principles of Microbiology (Lab)	4	BIO122 or BIO123 or BIO141	
BIO122	Anatomy and Physiology II (Lab)	4	BIO121 or BIO123	
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NON EDOM	10tal			
	Total	27	Co-NSG261L	
	Tieross the Enespair with Complex Conditions (chimear)		NSG241C and Co-NSG261 and	
NSG261C	Across the Lifespan with Complex Conditions (clinical)	3	NSG241 and NSG241L and	
	Concepts of Nursing Practice in the Care of Patients		and NSG221L and NSG221C and	
			BIO221 and PSY123 and NSG221	
			Co-NSG261C	
	Across the Lifespan with Complex Conditions (lab)		NSG241C and Co-NSG261 and	
NSG261L	Concepts of Nursing Practice in the Care of Patients	1	NSG241 and NSG241L and	
			and NSG221L and NSG221C and	
			BIO221 and PSY123 and NSG221	
	Concepts of Nursing Practice in the Care of Patients Across the Lifespan with Complex Conditions (lecture)	5	NSG241C and Co-NSG261L and Co-NSG261C	
NSG261			NSG241 and NSG241L and	
NCC2C1			and NSG221L and NSG221C and	
			BIO221 and PSY123 and NSG221	
	(clinical)		Co-NSG241L	
NSG241C	Patients with Stable and Unstable Acute Conditions	1.5	and NSG141C and Co-NSG241 and	
	Concepts of Nursing Practice in the Care of Adult		BIO122 and NSG141 and NSG141L	
	Patients with Stable and Unstable Acute Conditions (lab)		Co-NSG241C	
NSG241L	Concepts of Nursing Practice in the Care of Adult	0.5	and NSG141C and Co-NSG241 and	
			BIO122 and NSG141 and NSG141L	
1150211	(lecture)	3	Co-NSG241C	
NSG241	Patients with Stable and Unstable Acute Conditions	3	and NSG141C and Co-NSG241L and	
	Concepts of Nursing Practice in the Care of Adult		Co-NSG221L BIO122 and NSG141 and NSG141L	
NSG221C	Reproducing and Developing Family (clinical)	1	NSG141C and Co-NSG221 and	
110 Caa 1 C	Concepts of Nursing Practice in the Care of the		NSG141 and NSG141L and	
	Reproducing and Developing Laminy (180)		Co-NSG221C	
NSG221L	Reproducing and Developing Family (lab)	0.5	NSG141C and Co-NSG221 and	
	Concepts of Nursing Practice in the Care of the		NSG141 and NSG141L and	
	Reproducing and Developing Family (lecture)		Co-NSG221C	
NSG221	Concepts of Nursing Practice in the Care of the	2.5	NSG141C and Co-NSG221L and	
			NSG141 and NSG141L and	
			Co-NSG141 and Co-NSG141L	
			NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and	

See last page for footnotes

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#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### A student cannot register for NSG courses until accepted into the program.

Pre-Nursing C	Courses	Credit H	ours Pre- and Co-requisites
MTH124	Statistics <sup>^</sup>	3	MTH022 or Pre-Co-MTH024 or Proficiency
BIO121	Anatomy and Physiology I (Lab) ▲	4	BIO101 or Proficiency
PSY121	General Psychology ^	3	IDS102 or Proficiency
ENG124	College Composition <sup>^</sup>	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
		13	·
First Semester	r		
BIO122	Anatomy and Physiology II (Lab)	4	BIO121 or BIO123
	r – First 8 Weeks		
NSG101	Clinical Reasoning in Current Nursing Practice	2	(Co-NSG100 and Co-NSG100L and Co-
			NSG100C) or (Co-NSG122 and Co-NSG122L
			and Co-NSG122C) <b>or</b> (Co-NSG123 and Co-NSG123L and Co-NSG123C
NSG122	Transition for the Paramedic (lecture)	2	Admission to Program and Co-NSG122L
1150122	Transition for the Farametre (recture)	2	and Co-NSG122C and Co-NSG101
NSG122L	Transition for the Paramedic (lab)	0.5	Admission to Program and Co-NSG122
	, ,		and Co-NSG122C and Co-NSG101
NSG122C	Transition for the Paramedic (clinical)	1.5	Admission to Program and Co-NSG122
T	a 10 W 1		and Co-NSG122L and Co-NSG101
	r – Second 8 Weeks		<i>(</i>
NSG141	Concepts of Nursing Practice in the Care	1.5	(BIO121 or BIO123) and
	of Patients with Mental Illness Issues (lecture)		(NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or
			(NSG122 and NSG122L and NSG122C) of (NSG123 and NSG123L and NSG123C) and
			NSG101 and Co-NSG141L and Co-NSG141C
NSG141L	Concepts of Nursing Practice in the Care	0.5	(BIO121 or BIO123) and (NSG100
	of Patients with Mental Illness Issues (lab)		and NSG100L and NSG100C) or
			(NSG122 and NSG122L and NSG122C) or
			(NSG123 and NSG123L and NSG123C) and
NSG141C	Concepts of Nursing Practice in the Care	<u>1</u>	NSG101 <b>and</b> Co-NSG141 <b>and</b> Co-NSG141C (BIO121 or BIO123) <b>and</b> (NSG100 and
NS0141C	of Patients with Mental Illness Issues (clinical)	1	NSG100L and NSG100C) or (NSG122
	of I attents with Wentar Inness Issues (clinical)		and NSG122L and NSG122C) or (NSG123 and
			NSG123L and NSG123C) and NSG101 and
			Co-NSG141 and Co-NSG141L
		13	
Second Semes	<u>ster</u>	10	
PSY 123	Human Growth and Development	3	PSY121
BIO 221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141
NSG221	Concepts of Nursing Practice in the Care of the	2.5	NSG141 and NSG141L and NSG141C
	Reproducing and Developing Family (lecture)		and Co-NSG221L and Co-NSG221C
NSG221L	Concepts of Nursing Practice in the Care of the	0.5	NSG141 and NSG141L and NSG141C
	Reproducing and Developing Family (lab)		and Co-NSG221 and NSG221C
NSG221C	Concepts of Nursing Practice in the Care of the	1	NSG141 and NSG141L and NSG141C
	Reproducing and Developing Family (clinical)		and Co-NSG221 and Co-NSG221L

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#### **CONCEPT-BASED RN COMPLETION FOR PARAMEDICS**

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NSG241	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions (lecture)	3	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241L and Co-NSG241C
NSG241L	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions	0.5	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241 and Co-NSG241C
	(lab)		
NSG241C	Concepts of Nursing Practice in the Care of	1.5	BIO122 and NSG141 and NSG141L and
	Adult Patients with Stable and Unstable Acute Conditions (clinical)		NSG141C and Co-NSG241 and Co-NSG241L
		16	
Third Semester	• •		
SOC 121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
NSG261	Concepts of Nursing Practice in the Care of	5	BIO221 and PSY123 and NSG221 and
	Patients Across the Lifespan with Complex Conditions		NSG221L and NSG221C and NSG241 and
	(lecture)		NSG241L and NSG241C and Co-NSG261L and Co-NSG261C
NSG261L	Concepts of Nursing Practice in the Care of	1	BIO221 and PSY123 and NSG221 and
	Patients Across the Lifespan with Complex Conditions	_	NSG221L and NSG221C and NSG241 and
	(lab)		NSG241L and NSG241C and Co-NSG261
		_	and Co-NSG261C
NSG261C	Concepts of Nursing Practice in the Care of	<u>3</u>	BIO221 and PSY123 and NSG221 and
	Patients Across the Lifespan with Complex Conditions		NSG221L and NSG221C and NSG241 and
	(clinical)		NSG241L and NSG241C and Co-NSG261 and Co-NSG261L
		12	and CO-1150201L
	TOTAL CREDITS	54	

<sup>^</sup>Based on SSC placement scores

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required. All applications received after March 1, 2016 will be considered on a selective admission basis.

BIO101 is waived as a prerequisite course for Paramedics applying for advanced standing admissions.

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed prerequisites.



# ASSOCIATE OF APPLIED SCIENCE CONCEPT-BASED RN COMPLETION FOR LPN

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Nursing Department

A Licensed Practical Nurse (LPN) admitted to Stark State College's Concept-Based Nursing program with advanced standing admission meets the credit requirements for graduation in the following way:

- 10 credits for nursing courses granted upon successful completion of the NSG123, NSG123L and NSG123C, achieve a predetermined passing score on the required program admission test, and current, unrestricted, active license as a practical nurse in the State of Ohio.
- 41 credits for nursing courses granted upon successful completion of the Transition for the LPN course.
- 13 hours of prerequisite credit (see Admission Criteria and listing below).

	PRE-NURSING CREDITS AS LISTED BELOW:				
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year	
BIO121	Anatomy and Physiology I (lab) 🛧	4	BIO101 or Proficiency		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency		
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency		
	TOTAL CREDIT HOURS	13			

ONE CALENDAR YEAR CURRICULUM AS LISTED BELOW:				
TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NSG123	Transition for the LPN (lecture)	2	Admission to Program <b>and</b> Co- NSG123L <b>and</b> Co-NSG123C <b>and</b> Co- NSG101	
NSG123L	Transition for the LPN (lab)	0.5	Admission to Program and Co-NSG123 and Co-NSG123C and Co-NSG101	
NSG123C	Transition for the LPN (clinical)	1.5	Admission to Program and Co-NSG123 and Co-NSG123L and Co-NSG101	
NSG101	Clinical Reasoning in Current Nursing Practice	2	(Co-NSG100 and Co-NSG100L and Co-NSG100C) or (Co-NSG122 and Co- NSG122L and Co-NSG122C) or (Co- NSG123 and Co-NSG123L and Co-NSG123C)	
NSG141	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (lecture)	1.5	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141L and Co-NSG141C	
NSG141L	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (lab)	0.5	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141 and Co-NSG141C	
NSG141C	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (clinical)	1	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141 and Co-NSG141L	
NSG221	Concepts of Nursing Practice in the Care of the Reproducing and Developing Family (lecture)	2.5	NSG141 and NSG141L and NSG141C and Co-NSG221L and Co- NSG221C	

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NSG221L	Concepts of Nursing Practice in the Care of the Reproducing and Developing Family (lab)	0.5	NSG141 and NSG141L and NSG141C and Co-NSG221 and Co-NSG221C	
NSG221C	Concepts of Nursing Practice in the Care of the Reproducing and Developing Family (clinical)	1	NSG141 and NSG141L and NSG141C and Co-NSG221 and Co-NSG221L	
NSG241	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions (lecture)	3	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241L and Co-NSG241C	
NSG241L	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions (lab)	0.5	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241 and Co-NSG241C	
NSG241C	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions (clinical)	1.5	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241 and Co-NSG241L	
NSG261	Concepts of Nursing Practice in the Care of Patients Across the Lifespan with Complex Conditions (lecture)	5	BIO221 and PSY123 and NSG221 and NSG221L and NSG221C and NSG241 and NSG241L and NSG241C and Co- NSG261L and Co-NSG261C	
NSG261L	Concepts of Nursing Practice in the Care of Patients Across the Lifespan with Complex Conditions (lab)	1	BIO221 and PSY123 and NSG221 and NSG221L and NSG221C and NSG241 and NSG241L and NSG241C and Co- NSG261 and Co-NSG261C	
NSG261C	Concepts of Nursing Practice in the Care of Patients Across the Lifespan with Complex Conditions (clinical)	3	BIO221 and PSY123 and NSG221 and NSG221L and NSG221C and NSG241 and NSG241L and NSG241C and Co- NSG261 and Co-NSG261L	
	Total	27		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
BIO122	Anatomy and Physiology II (Lab)	4	BIO121 or BIO123	
PSY123	Human Growth and Development	3	PSY121	
SOC121	Sociology <sup>^</sup>	3	IDS102 or proficiency	
	Total	14		
	TOTAL CREDIT HOURS	54		

<sup>^</sup>Based on SSC placement scores

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

All applications received after March 1, 2016 will be considered on a selective admission basis.

BIO101 is waived as a prerequisite course for LPNs applying for advanced standing admissions.

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

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#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### A student cannot register for NSG courses until accepted into the program.

Pre-Nursing Co MTH124 BIO121 PSY121 ENG124	Statistics^ Anatomy and Physiology I (Lab) A General Psychology ^ College Composition^	Credit Hour  3 4 3 3 13	MTH022 or Pre-Co-MTH024 or Proficiency BIO101 or Proficiency IDS102 or Proficiency Co-ENG024 or Co-ENG011 or Proficiency
BIO122	Anatomy and Physiology II (Lab)	4	BIO121 or BIO123
NSG101	<ul> <li>First 8 Weeks</li> <li>Clinical Reasoning in Current Nursing Practice</li> </ul>	2	(Co-NSG100 and Co-NSG100L and Co- NSG100C) <b>or</b> (Co-NSG122 and Co-NSG122L and Co-NSG122C) <b>or</b> (Co-NSG123 and Co-NSG123L and Co-NSG123C)
NSG123	Transition for the LPN (lecture)	2	Admission to Program and Co-NSG123L and Co-NSG123C and Co-NSG101
NSG123L	Transition for the LPN (lab)	0.5	Admission to Program and Co-NSG123 and Co-NSG123C and Co-NSG101
NSG123C	Transition for the LPN (clinical)	1.5	Admission to Program and Co-NSG123 and Co-NSG123L and Co-NSG101
First Semester	- Second 8 Weeks		
NSG141	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (lecture)	1.5	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141L and Co-NSG141C
NSG141L	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (lab)	0.5	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and NSG123L and NSG123C) and NSG101 and Co-NSG141 and Co-NSG141C
NSG141C	Concepts of Nursing Practice in the Care of Patients with Mental Illness Issues (clinical)	<u>1</u> NS	(BIO121 or BIO123) and (NSG100 and NSG100L and NSG100C) or (NSG122 and NSG122L and NSG122C) or (NSG123 and SG123L and NSG123C) and NSG101 and Co-NSG141 and Co-NSG141L
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NSG221	Concepts of Nursing Practice in the Care of the	2.5	NSG141 and NSG141L and NSG141C
1450221	Reproducing and Developing Family (lecture)	2.3	and Co-NSG221L and Co-NSG221C
NSG221L	Concepts of Nursing Practice in the Care of the	0.5	NSG141 and NSG141L and NSG141C
	Reproducing and Developing Family (lab)		and Co-NSG221 and NSG221C
NSG221C	Concepts of Nursing Practice in the Care of the	1	NSG141 and NSG141L and NSG141C
	Reproducing and Developing Family (clinical)		and Co-NSG221 and Co-NSG221L
PSY 123	Human Growth and Development	3	PSY121
BIO 221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141
NSG241	Concepts of Nursing Practice in the Care of Adult Patients with Stable and Unstable Acute Conditions (lecture)	3	BIO122 and NSG141 and NSG141L and NSG141C and Co-NSG241L and Co-NSG241C
NSG241L	Concepts of Nursing Practice in the Care of	0.5	BIO122 and NSG141 and NSG141L and
	Adult Patients with Stable and Unstable Acute Conditions (lab)		NSG141C and Co-NSG241 and Co-NSG241C
NSG241C	Concepts of Nursing Practice in the Care of	<u>1.5</u>	BIO122 and NSG141 and NSG141L and
	Adult Patients with Stable and Unstable Acute Conditions (clinical)		NSG141C and Co-NSG241 and Co-NSG241L
		16	
Third Semester	<u>.</u>		
SOC 121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
NSG261	Concepts of Nursing Practice in the Care of	5	BIO221 and PSY123 and NSG221 and
	Patients Across the Lifespan with Complex Conditions		NSG221L and NSG221C and NSG241 and
	(lecture)		NSG241L <b>and</b> NSG241C <b>and</b> Co-NSG261L <b>and</b> Co-NSG261C
NSG261L	Concepts of Nursing Practice in the Care of	1	BIO221 and PSY123 and NSG221 and
	Patients Across the Lifespan with Complex Conditions		NSG221L and NSG221C and NSG241 and
	(lab)		NSG241L and NSG241C and Co-NSG261 and Co-NSG261C
NSG261C	Concepts of Nursing Practice in the Care of	<u>3</u>	BIO221 and PSY123 and NSG221 and
	Patients Across the Lifespan with Complex Conditions		NSG221L and NSG221C and NSG241 and
	(clinical)		NSG241L and NSG241C and Co-NSG261 and Co-NSG261L
		12	

<sup>^</sup>Based on SSC placement scores

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

All applications received after March 1, 2016 will be considered on a selective admission basis.

BIO101 is waived as a prerequisite course for LPNs applying for advanced standing admissions.

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.



### MAP

### ASSOCIATE OF APPLIED SCIENCE OPHTHALMIC TECHNOLOGY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Medical Technology Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
OPH100	Introduction to Ophthalmology Profession	3	Co-OPH101 and Co-OPH102	
OPH101	Ophthalmic Procedures I	4	Co-OPH100 and Co-OPH102	
OPH102	Ocular Anatomy and Physiology	1	Co-OPH100 and Co-OPH101	
OPH103	Ophthalmic Procedures II	4	OPH102 and Co-OPH105 and Co-OPH106	
OPH104	Ophthalmology Practicum I	3	OPH103 and Co-OPH103	
OPH105	Ocular Diseases	2	Co-OPH103 and Co-OPH106	
OPH106	Ocular Pharmacology	2	Co-OPH103 and Co-OPH105	
OPH107	Ophthalmology Practicum II	2	OPH104	
OPH200	Ophthalmic Procedures III	4	OPH103 <b>or</b> Program Coordinator approval	
OPH201	Ophthalmology Practicum III	2	OPH107 and Co-OPH200	
OPH202	Ophthalmic Procedures IV	4	OPH200	
OPH203	Ophthalmology Practicum IV	3	OPH201 and Co-OPH202	
	Total	34		
NON-TECH				G 1 1
Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
	Course Title  Student Success Seminar^^	Credits 1	Take first semester	
<b>Course Number</b>			Take first semester Co-ENG024 or Co-ENG011 or Proficiency	
Course Number SSC101 ENG124 MTH105	Student Success Seminar^^  College Composition^  Math for Allied Health^	3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency	
SSC101 ENG124 MTH105 PSY121	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^	1 3 3 3	Take first semester Co-ENG024 or Co-ENG011 or Proficiency MTH021 or Pre-Co-MTH005 or	
SSC101 ENG124 MTH105 PSY121 COM122	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^  Interpersonal Communications	1 3 3 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency	
SSC101 ENG124 MTH105 PSY121 COM122 MAT103	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^  Interpersonal Communications  Medical Law and Ethics	1 3 3 3 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency  IDS102 or Proficiency	
SSC101 ENG124 MTH105 PSY121 COM122 MAT103 ITD122	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^ Interpersonal Communications  Medical Law and Ethics  Computer Applications for Professionals^	1 3 3 3 3 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency  IDS102 or Proficiency  ITD100 or Proficiency	
SSC101 ENG124 MTH105 PSY121 COM122 MAT103	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^ Interpersonal Communications  Medical Law and Ethics Computer Applications for Professionals^ Introduction to Anatomy and Physiology^	1 3 3 3 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency  IDS102 or Proficiency	
SSC101 ENG124 MTH105 PSY121 COM122 MAT103 ITD122	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^ Interpersonal Communications  Medical Law and Ethics  Computer Applications for Professionals^	1 3 3 3 3 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency  IDS102 or Proficiency  ITD100 or Proficiency	
SSC101 ENG124 MTH105 PSY121 COM122 MAT103 ITD122 BIO101	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^ Interpersonal Communications  Medical Law and Ethics  Computer Applications for Professionals^ Introduction to Anatomy and Physiology^  Principles of Human Structure and	1 3 3 3 3 3 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency  IDS102 or Proficiency  ITD100 or Proficiency  IDS102 or Proficiency	
SSC101 ENG124 MTH105 PSY121 COM122 MAT103 ITD122 BIO101 BIO123	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^ Interpersonal Communications  Medical Law and Ethics  Computer Applications for Professionals^ Introduction to Anatomy and Physiology^  Principles of Human Structure and Function# (lab)	1 3 3 3 3 3 3 3 5	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency  IDS102 or Proficiency  ITD100 or Proficiency  IDS102 or Proficiency	
SSC101 ENG124 MTH105 PSY121 COM122 MAT103 ITD122 BIO101 BIO123	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^ Interpersonal Communications  Medical Law and Ethics  Computer Applications for Professionals^ Introduction to Anatomy and Physiology^ Principles of Human Structure and Function# (lab)  Medical Terminology	1 3 3 3 3 3 3 5	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency  IDS102 or Proficiency  ITD100 or Proficiency  IDS102 or Proficiency	
SSC101 ENG124 MTH105 PSY121 COM122 MAT103 ITD122 BIO101 BIO123	Student Success Seminar^^  College Composition^  Math for Allied Health^  General Psychology^ Interpersonal Communications  Medical Law and Ethics  Computer Applications for Professionals^ Introduction to Anatomy and Physiology^ Principles of Human Structure and Function# (lab)  Medical Terminology  Total	1 3 3 3 3 3 3 5 3 3	Take first semester  Co-ENG024 or Co-ENG011 or Proficiency  MTH021 or Pre-Co-MTH005 or Proficiency  IDS102 or Proficiency  ITD100 or Proficiency  IDS102 or Proficiency	

<sup>^</sup>Based on SSC placement score.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

This program requires an application (separate from the College).

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

#### **OPHTHALMIC TECHNOLOGY**

3364

Please see your advisor to discuss the application process.

#### **FULL-TIME STUDENT ADVISING NOTES**

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
OPH100	Introduction to Ophthalmology Profession	3	Co-OPH101 and Co-OPH102
OPH101	Ophthalmic Procedures I	4	Co-OPH100 and Co-OPH102
OPH102	Ocular Anatomy and Physiology	1	Co-OPH100 and Co-OPH101
BIO101	Introduction to Anatomy and Physiology <sup>^</sup>	3	IDS102 or Proficiency
BIO125	Medical Terminology	<u>3</u>	
		15	
Second Semester			
OPH103	Ophthalmic Procedures II	4	OPH102 <b>and</b> Co-OPH105 <b>and</b> Co-OPH106
OPH104	Ophthalmology Practicum I	3	OPH103 <b>or</b> Co-OPH103
OPH105	Ocular Diseases	2	Co-OPH103 and Co-OPH106
OPH106	Ocular Pharmacology	2	Co-OPH103 and Co-OPH105
MTHIOS	Made for Alliad III alden	2	MTH021 or Pre-Co-MTH005 or
MTH105	Math for Allied Health <sup>^</sup>	<u>3</u>	Proficiency
<u>Summer</u>		14	·
OPH107	Ophthalmology Practicum II	2	OPH104
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
COM122	Interpersonal Communications	3	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
00111122	morporational Communications	<u>3</u> <b>8</b>	
Third Semester		Ü	
OPH200	Ophthalmic Procedures III	4	OPH103 <b>or</b> Program Coordinator approval
OPH201	Ophthalmology Practicum III	2	OPH107 and Co-OPH200
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011
	7 · · · · · · · · · · · · · · · · · · ·	-	or Proficiency
BIO123	Principles of Human Structure and Function# (lab)	<u>5</u>	BIO101 or Proficiency
	1	<u>-</u> 14	
Fourth Semester			
OPH202	Ophthalmic Procedures IV	4	OPH200
OPH203	Ophthalmology Practicum IV	3	OPH201 and Co-OPH202
MAT103	Medical Law and Ethics	3	
ITD122	Computer Applications for Professionals <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
	1 II	13	
	TOTAL CREDITS	64	

<sup>^</sup>Based on SSC placement score.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123



## ONE-YEAR CERTIFICATE OPHTHALMIC ASSISTANT

2021 Catalog

Effective Summer 2020

3368



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28

Health and Public Services Division

Medical Technology Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
OPH100	Introduction to Ophthalmology Profession	3	Co-OPH101 and Co-OPH102	
OPH101	Ophthalmic Procedures I	4	Co-OPH100 and Co-OPH102	
OPH102	Ocular Anatomy and Physiology	1	Co-OPH100 and Co-OPH101	
OPH103	Ophthalmic Procedures II	4	OPH102 and Co-OPH105 and Co-OPH106	
OPH104	Ophthalmology Practicum I	3	OPH103 <b>or</b> Co-OPH103	
OPH105	Ocular Diseases	2	Co-OPH103 and Co-OPH106	
OPH106	Ocular Pharmacology	2	Co-OPH103 and Co-OPH105	
OPH107	Ophthalmology Practicum II	2	OPH104	
	Total	21		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
COM122	Interpersonal Communications	3		
MTH105	Math for Allied Health^	3	MTH005 <b>or</b> MTH021 <b>or</b> Proficiency <b>or</b> Pre-Co MTH005	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
	Total	15		
	TOTAL CREDIT HOURS	36		

<sup>^</sup>Based on SSC placement score.

Application criteria requires ENG011 or proficiency, IDS102 or proficiency, and (MTH091 and MTH092) or proficiency to apply. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

**2021 Catalog**Effective Summer 2020

#### **OPHTHALMIC ASSISTANT**

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#### **FULL-TIME STUDENT ADVISING NOTES**

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time certificate students who plan to finish in one year.

First Semester OPH100 OPH101 OPH102 BIO101 BIO125	Introduction to Ophthalmology Profession Ophthalmic Procedures I Ocular Anatomy and Physiology Introduction to Anatomy and Physiology^ Medical Terminology	Credit Hours  3 4 1 3 3 4 1 4 1 3 4 1 4	Pre- and Co-requisites Co-OPH101 and Co-OPH102 Co-OPH100 and Co-OPH102 Co-OPH100 and Co-OPH101 IDS102 or Proficiency
Second Semester			
OPH103	Ophthalmic Procedure II	4	OPH102 <b>and</b> Co-OPH105 <b>and</b> Co-OPH106
OPH104	Ophthalmology Practicum I	3	OPH103 and Co-OPH103
OPH105	Ocular Diseases	2	Co-OPH103 and Co-OPH106
OPH106	Ocular Pharmacology	2	Co-OPH103 and Co-OPH105
MTH105	Math for Allied Health^	<u>3</u>	MTH005 <b>or</b> MTH021 <b>or</b> Proficiency <b>or</b> Pre-Co MTH005
		14	
<u>Summer</u>			
OPH107	Ophthalmology Practicum II	2	OPH104
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
COM122	Interpersonal Communications	3	•
	•	3 8	
	TOTAL CREDITS	36	

<sup>^</sup>Based on SSC placement score.

Application criteria requires ENG011 or proficiency, IDS102 or proficiency, and (MTH091 and MTH092) or proficiency to apply. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.



# ASSOCIATE OF APPLIED SCIENCE SURGICAL TECHNOLOGY

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Respiratory, Laboratory, and Surgical Technology Dept.

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SUR102	Principles of Surgery I▲ -	3	Co-SUR102L	
SUR102L	Principles of Surgery I Lab ▲ -	1	Co-SUR102	
SUR105	Surgical Anatomy and Pathology ▲ +	3	SUR102 and (BIO121 or BIO123)	
SUR104	Surgical Pharmacology ▲ -	3	Pre-Co-(BIO122 or BIO123)	
SUR106	Principles of Surgery II ▲ +	3	SUR102 and Co-SUR106L	
SUR106L	Principles of Surgery II Lab ▲ +	1	SUR102L and Co-SUR106	
SUR200	Surgical Specialties I *	2	SUR106 and Co-SUR200L	
SUR200L	Surgical Specialties I Lab ▲ *	1	SUR106L and Co-SUR200	
SUR201C	Surgical Clinical Practicum I A -	3	SUR200 and SUR200L and Co-SUR201	
SUR201	Surgical Clinical Practicum I Seminar ▲ -	1	Co-SUR201C	
SUR202	Surgical Specialties II ▲ -	2	SUR200 and Co-SUR202L	
SUR202L	Surgical Specialties II Lab ▲ -	1	SUR200L and Co-SUR202	
SUR203C	Surgical Clinical Practicum II ▲ +	4	SUR201C and Co-SUR203 and Co-SUR204	
SUR203	Surgical Clinical Practicum II Seminar ▲ +	1	Co-SUR203C	
SUR204	Surgical Technology Capstone ▲ +	2	Co-SUR203C	
	Total	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
PHL122	Ethics	3		
BIO123	Principles of Human Structure and Function ♣# (lab)	5	BIO101 or Proficiency	
BIO125	Medical Terminology	3		
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO221	Principles of Microbiology(lab)	4	BIO122 or BIO123 or BIO141	
MTH124	Statistics <sup>^</sup> Ω	3		
or MTH125	<b>or</b> College Algebra^ Ω	<b>or</b> 4	Check for prerequisites	
or	or	or	J J	
MTH105	Math for Allied Health	3	IDC102	
PSY222	Psychological Aspects of Therapy^	3	IDS102	
	Sociology Elective^*	3	Check for prerequisites	
	Total	31-32		
	TOTAL CREDIT HOURS	62-63		

See last page for footnotes

Effective Summer 2020

#### SURGICAL TECHNOLOGY

3373

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Each student should make an appointment to see their advisor every semester before registering for classes. Please have your registration form completed, including the courses you wish to take, for this meeting.

#### Course Sequence

The semester-by-semester listing below gives the normal scheduling option for full-time associate degree students who plan to finish in two years. Some courses can be scheduled as beginning courses in <u>other</u> semesters depending upon course availability and advisor's recommendation. **Surgical Technology courses** must be taken in the order listed below.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BIO123	Principles of Human Structure and Function (lab) ▲#	5	BIO101 or Proficiency
BIO125	Medical Terminology	3	G GIID 100I
SUR102	Principles of Surgery I▲ -	3	Co-SUR102L
SUR102L	Principles of Surgery I Lab ▲ -	1	Co-SUR102
SUR104	Surgical Pharmacology ▲ -	<u>3</u>	Pre-Co-(BIO122 or BIO123)
		16	
Second Semester			
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141
MTH124	Statistics <sup>^</sup> Ω	3	
or	or	or	
MTH125	College Algebra <sup>^</sup> Ω	4	Check for Pre-requisites
or MELLIOS	or Mal C All 144 14	or	
MTH105	Math for Allied Health	3	GUD 102 L/DIO 121 DIO 122
SUR105	Surgical Anatomy and Pathology ▲ +	3	SUR102 and (BIO121 or BIO123)
SUR106	Principles of Surgery II ▲ +	3	SUR102 and Co-SUR106L
SUR106L	Principles of Surgery II Lab ▲ +	<u>1</u>	SUR102L and Co-SUR106
		14-15	
<u>Summer</u>			
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
SUR200	Surgical Specialties I ▲ *	2	SUR106 and Co-SUR200L
SUR200L	Surgical Specialties I Lab ▲ *	<u>1</u>	SUR106L and Co-SUR200
		6	
Third Semester			
BIO124	Human Diseases	3	BIO122 or BIO123
PSY222	Psychological Aspects of Therapy^	3	IDS102
SUR201C	Surgical Clinical Practicum I ▲ -	3	SUR200 and SUR200L and
			Co-SUR201
SUR201	Surgical Clinical Practicum I Seminar ▲ -	1	Co-SUR201C
SUR202	Surgical Specialties II ▲ -	2	SUR200 and Co-SUR202L
SUR202L	Surgical Specialties II Lab ▲ -	<u>1</u>	SUR200L and Co-SUR202
~	Surgious Speciation II Zuo =	13	
Fourth Semester		10	
Sociology Elective^*		3	Check for prerequisites
PHL122	Ethics	3	Check for prerequisites
SUR203C	Surgical Clinical Practicum II ▲ +	4	SUR201C and Co-SUR203 and
30K203C	Surgical Chilical Fracticum II A +	7	Co-SUR204
SUR203	Surgical Clinical Practicum II Seminar ▲ +	1	SUR203C
SUR204	Surgical Technology Capstone ▲ +	<u>2</u>	Co-SUR203C
	momet comme	13	
Based on SSC placement score.	TOTAL CREDITS	62-63	

<sup>^</sup>Based on SSC placement score.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

A Because of the strong emphasis on science in this major, applicants must have successfully completed biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123.

<sup>+</sup> Requires a grade of "B" or better.

<sup>\*</sup>May select from Sociology offerings only

Ω MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

<sup>▲ +</sup> Spring only courses. Please see your academic advisor for availability.

 $<sup>\</sup>pmb{\vartriangle}$  - Fall only courses. Please see your academic advisor for availability.

<sup>▲ \*</sup> Summer only courses. Please see your academic advisor for availability.



### MAP

## ONE-YEAR CERTIFICATE SURGICAL ASSISTING TECHNOLOGY

2021 Catalog

Effective Summer 2020

3372

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-06.

Health and Public Services Division

Respiratory, Laboratory, and Surgical Technology Dept.

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SUA100	Introduction to Surgical Assisting ▲*	3	Admission to Program Co-SUA102 <b>and</b> Co-SUA102L	
SUA102	Principles of Surgical Assisting ▲*	3	Co-SUA100 and Co-SUA102L	
SUA102L	Principles or Surgical Assisting Lab ▲*	1	Co-SUA102	
SUA104	Advanced Surgical Anatomy & Physiology ▲-	3		
SUA106	Surgical Assisting Procedures ▲-	3	SUA102 and SUA102L and Co-SUA106L	
SUA106L	Surgical Assisting Procedures Lab ▲-	1	SUA102 and SUA102L and Co-SUA106	
SUA108C	Surgical Assisting Directed Practice I▲-	3	SUA102 and SUA102L and Co-SUA108	
SUA108	Surgical Assisting Directed Practice I Seminar ▲-	1	Co-SUA108C	
SUA110C	Surgical Assisting Clinical Practicum II 🛦 +	3	SUA108C and Co-SUA110 and Co-SUA112	
SUA110	Surgical Assisting Clinical Practicum II Seminar ▲+	1	Co-SUA110C	
SUA112	Surgical Assisting Specialties Capstone ▲+	2	Co-SUA110C	
SUA114	Surgical Assisting Advanced Pathophysiology ▲+	3	SUA104	
	TOTAL	27		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
PHL122	Ethics	3		
	Total	4		
	TOTAL CREDIT HOURS	31		

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

Application criteria require a student to have one year of current clinical experience working as a surgical technologist with CST credential or be a registered nurse, physician assistant, or military trained individual with one year of operating room work experience in the scrub or assistant role. Students who do not hold the CST credential must receive  $\geq 70\%$  on the entrance proficiency exam to be accepted into the program.

Students must meet computer proficiency requirements to apply to the program.

- ▲+ Spring only courses. Please see your academic advisor for availability.
- ▲ Fall only courses. Please see your academic advisor for availability.
- ▲\* Summer only courses. Please see your academic advisor for availability.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for one-year certificate students who plan to finish in three semesters. **Surgical Assisting courses must be taken in the order listed below.** 

First Semester		Credit Hours	Pre- and Co-requisites
(Summer) SSC101	Student Success Seminar^^	1	Take First Semester
SUA100		3	
30A100	Introduction to Surgical Assisting ▲*	3	Admission to Program and
GT 1 1 1 0 2	D: 11 CC 114 1.1 4.8	2	Co-SUA102 and Co-SUA102L
SUA102	Principles of Surgical Assisting ▲*	3	Co-SUA100 and Co-SUA102L
SUA102L	Principles of Surgical Assisting Lab ▲*	<u>1</u> 8	Co-SUA102
~		8	
Second Semester			
SUA104	Advanced Surgical Anatomy & Physiology ▲-	3	
SUA106	Surgical Assisting Procedures ▲-	3	SUA102 and SUA102L and
			Co-SUA106L
SUA106L	Surgical Assisting Procedures Lab ▲-	1	SUA102 and SUA102L and
			Co-SUA106
SUA108C	Surgical Assisting Directed Practice I▲-	3	SUA102 and SUA102L and
			Co-SUA108
SUA108	Surgical Assisting Directed Practice I Seminar ▲-	<u>1</u>	Co-SUA108C
		11	
Third Semester			
PHL122	Ethics	3	
SUA110C	Surgical Assisting Clinical Practicum II ▲+	3	SUA108C and Co-SUA110 and
50111100	Surgious rissisting Similar riacticals is = 1	3	Co-SUA112
SUA110	Surgical Assisting Clinical Practicum II	1	Co-SUA110C
SOATIO	Seminar A+	1	CO-SOATIOC
SUA112	Surgical Assisting Specialties Capstone A+	2	Co-SUA110C
~		2	
SUA114	Surgical Assisting Advanced Pathophysiology ▲+	3 12	SUA104
		12	
	TOTAL CREDITS	31	

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

Application criteria require a student to have one year of current clinical experience working as a surgical technologist with CST credential or be a registered nurse, physician assistant, or military trained individual with one year of operating room work experience in the scrub or assistant role. Students who do not hold the CST credential must receive  $\geq 70\%$  on the entrance proficiency exam to be accepted into the program.

Students must meet computer proficiency requirements to apply to the program.

- ▲+ Spring only courses. Please see your academic advisor for availability.
- ▲- Fall only courses. Please see your academic advisor for availability.
- ▲\* Summer only courses. Please see your academic advisor for availability.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.



### ASSOCIATE OF APPLIED SCIENCE **DENTAL HYGIENE**

2021 Catalog

Effective Summer 2020

3400

Pre-3401

### The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28. Health and Public Services Division

#### Allied Dental Health Professions Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DHY121	Head, Neck and Oral Anatomy ▲-	2	Co-DHY123	
DHY122	Oral Histology and Embryology ▲*	1		
DHY123	Dental Radiography ▲-	3	Co-DHY121	
DHY124	Periodontics I▲+	2	DHY122	
DHY125	Dental Materials ▲ +	3	DHY131	
DHY126	Pathology ▲+	2	DHY122	
DHY131	Fundamentals of Dental Hygiene Practice ▲-	4		
DHY132	Dental Hygiene Theory I▲+	2	DHY131 and Co-DHY133	
DHY133	Clinical Dental Hygiene I▲+	2	DHY131 and DHY123 and Co-DHY132	
DHY134	Clinical Dental Hygiene IA ▲*	1	DHY133	
DHY221	Nutrition in Dentistry ▲*	1	DHY132	
DHY222	Dental Pharmacology ▲ -	2	BIO221 and DHY126	
DHY223	Community Oral Health ▲-	1	DHY134	
DHY224	Periodontics II▲+	1	DHY124	
DHY225	Anesthesia and Pain Control ▲-	2	BIO122 and DHY121 and DHY132	
DHY231	Dental Hygiene Theory II ▲ -	1	DHY132 and Co-DHY232	
DHY232	Clinical Dental Hygiene II ▲-	4	DHY134 and Co-DHY231	
DHY233	Dental Hygiene Theory III ▲+	2	DHY231 and Co-DHY234	
DHY234	Clinical Dental Hygiene III ▲+	5	DHY232 and Co-DHY233	
	Total	41		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO121	Anatomy and Physiology I (lab) ▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO221	Principles of Microbiology (lab)#	4	BIO122 or BIO123 or BIO141	
CHM121	Gen., Org., and Bio., Chemistry I(lab) 🕹	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
	Total	32		
	TOTAL CREDIT HOURS	73		

<sup>^</sup>Based on SSC placement scores

Minimum grade of "C" in all technical courses is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>#</sup>May not be taken earlier than 3 years prior to enrollment inDHY121.

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

A + Spring only courses. Please see your academic advisor for availability.

<sup>▲ -</sup> Fall only courses. Please see your academic advisor for availability.

▲\* Summer only courses. Please see your academic advisor for availability.

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

Pre-Eligibility Courses	Gen., Org., and Bio., Chemistry I(lab) ▲	Credit Hours 4	Pre- and Co-Requisites
CHM121	Gen., Org., and Bio., Chemistry I(lab)		(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107
BIO121	Anatomy and Physiology I (lab) ▲	4	BIO101 or Proficiency
PSY121	General Psychology^	3	IDS102 or Proficiency
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
C		14	
Summer Semester 1	0.17		
DHY122	Oral Histology and Embryology ▲*	<u>1</u>	
First Semester		1	
DHY121	Head, Neck and Oral Anatomy ▲-	2	Co-DHY123
DHY123	Dental Radiography ▲-	3	Co-DHY121
DHY131	Fundamentals of Dental Hygiene Practice ▲-	4	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
SSC101	Student Success Seminar^^	<u>1</u>	Take first semester
Second Semester		14	
DHY124	Periodontics I▲+	2	DHY122
DHY125	Dental Materials ▲+	3	DHY131
DHY126	Pathology ▲+	2	DHY122
DHY132	Dental Hygiene Theory I ▲+	2	DHY131 and Co-DHY133
DHY133	Clinical Dental Hygiene I▲+	2	DHY131 and DHY123 and Co-DHY132
BIO221	Principles of Microbiology (lab)#	<u>4</u>	BIO122 or BIO123 or BIO141
Summer Semester 2	-	15	
DHY134	Clinical Dental Hygiene IA ▲*	1	DHY133
DHY221	Nutrition in Dentistry <b>▲</b> *	1	DHY132
MTH124	Statistics^	<u>3</u>	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency
		5	,
Third Semester			
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
DHY222	Dental Pharmacology ▲ -	2	BIO221 and DHY126
DHY223	Community Oral Health ▲ -	1	DHY134
DHY225	Anesthesia and Pain Control ▲-	2	BIO122 and DHY121 and DHY132
DHY231	Dental Hygiene Theory II ▲ -	1	DHY132 and Co-DHY232
DHY232	Clinical Dental Hygiene II▲-	<u>4</u>	DHY134 and Co-DHY231
Fourth Semester		13	
COM121	Effective Speaking	3	
DHY224	Periodontics II ▲+	1	DHY124
DHY233	Dental Hygiene Theory III ▲+	2	DHY231 and Co-DHY234
DHY234	Clinical Dental Hygiene III ▲+	<u>5</u>	DHY232 and Co-DHY233
		- 11	
	TOTAL CREDITS	73	
seed on SSC placement scores			

<sup>^</sup>Based on SSC placement scores

#### Minimum grade of "C" in all technical courses is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>#</sup>May not be taken earlier than 3 years prior to enrollment inDHY121.

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to A Secause of strong emphasis on science in this major, applicants must have such refresh their knowledge of the material, should complete the listed pre-requisites.
 ▲ + Spring only courses. Please see your academic advisor for availability.
 ▲ - Fall only courses. Please see your academic advisor for availability.
 ▲ \* Summer only courses. Please see your academic advisor for availability.



## ASSOCIATE OF SCIENCE DENTAL PRACTICE COORDINATION

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing.

2021 Catalog

Effective Summer 2020

3406

Pre-3405

Health and Public Services Division

Allied Dental Health Professions Department

Course	Course Title	Credits	Pre- and Co-Requisites	Completed
Number	N EXPERIENCE		*	Sem. /Year
SSC101	Student Success Seminar^^	1	Take first semester	T
COMPUTE	R APPLICATIONS & BUSINESS		Time your sections.	
BUS121	Business Administration^	3	IDS102 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
WRITTEN 6	& ORAL COMMUNICATION	l l		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG230	Business Communication^	3	ENG124 or Proficiency	
COM121	Effective Speaking	3		
SOCIAL &	BEHAVIORAL SCIENCES			
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PSY124	Industrial/Organizational Psychology	3		
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity	3	•	
ARTS & HU	MANITIES			
PHL122	Ethics	3		
SCIENCES	& MATHEMATICS: 14-15 credits minimum			
BIO101	Introduction to Anatomy and Physiology	3	IDS102 or Proficiency	
BIO121	Anatomy and Physiology I (lab)	4	BIO101	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
MTH124	Statistics^	3		
or	or	or	Check for prerequisites	
MTH125	College Algebra^	4		
	Total	45-46		
	L COURSES	1		
DAS128	Introduction to Dental Terminology and Basic Anatomy	2		
DAS129	Fundamentals of the Dental Profession	3	Co-Requisite DAS130	
DAS130	Dental Practice Coordination I	3	Co-Requisite DAS129	
DAS131	Dental Insurance	2	Pre-Requisite DAS130	
DAS132	Dental Practice Coordination II	3	Pre-Requisite DAS130	
AOT121	Keyboarding/Formatting	3	<u> </u>	
	Total	16		+
	Total Credits	61-62		

<sup>^</sup>Based upon SSC placement score

Minimum grade of "C" in all technical courses is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>♣</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Effective Summer 2020

### **DENTAL PRACTICE COORDINATION**

3406

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Each student should make an appointment to see their advisor every semester before registering for classes. Please have your registration form completed, including the courses you wish to take, for this meeting.

#### Course Sequence

The semester-by-semester listing below gives the normal scheduling option for full-time associate degree students who plan to finish in two years. Some courses can be scheduled as beginning courses in other semesters depending upon course availability and advisor's recommendation.

<u>First Semester</u>	Course Title	Credit	Pre- and Co-requisites
		<u>Hour</u>	rre una co requisites
SSC101	Student Success Seminar^^	1	Take first semester
DAS128	Introduction to Dental Terminology and Basic Anatomy	2	
DAS129	Fundamentals of the Dental Profession	3	Co-DAS130
DAS130	Dental Practice Coordination I	3	Co-DAS129
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MTH125	College Algebra^	4	
or	or	or	Check for prerequisites
MTH124	Statistics^	3	
		15-16	
Second Semester			
BIO101	Introduction to Anatomy and Physiology	3	IDS102 or Proficiency
DAS131	Dental Insurance	2	Pre-Requisite DAS130
DAS132	Dental Practice Coordination II	3	Pre-Requisite DAS130
AOT121	Keyboarding/Formatting	3	
SOC121	Sociology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		14	
Third Semester			
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency
PSY121	General Psychology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		6	
Fourth Semester			
BIO121	Anatomy and Physiology I (lab) ▲	4	BIO101
COM121	Effective Speaking	3	
PSY124	Industrial/Organizational Psychology	3	
SOC225	Cultural Diversity	<u>3</u>	
		13	
Fifth Semester			
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
BUS121	Business Administration^	3	IDS102 or Proficiency
ENG230	Business Communication^	3	ENG124
PHL122	Ethics	<u>3</u>	
		13	
	TOTAL CREDITS	61-62	

<sup>^</sup>Based upon SSC placement score

#### Minimum grade of "C" in all technical courses is required.

This program requires an application (separate from the College).

Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.



### ASSOCIATE OF SCIENCE **DENTAL ASSISTING**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

2021 Catalog
Effective Summer 2020

3425

Pre-3426

MY ACADEMIC PLAN

Health and Public Services Division

Allied Dental Health Professions Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXPER	RIENCE			
SSC101	Student Success Seminar^^	1	Take First Semester	
COMPUTER APPLI	CATIONS& BUSINESS			
BUS121	Business Administration^	3	IDS102 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 <b>or</b> Proficiency	
WRITTEN & ORAL	COMMUNICATION			
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG230	Business Communication	3	ENG124	
SOCIAL & BEHAVI	ORAL SCIENCES			
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PSY124	Industrial/Organizational Psychology	3		
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency	
SOC225	Cultural Diversity	3		
ARTS & HUMANIT				
PHL122	Ethics	3		
SCIENCES & MATI	HEMATICS: 14-15 credits minimum			
BIO101	Introduction to Anatomy and Physiology	3	IDS102 or Proficiency	
BIO121	Anatomy and Physiology I (lab) 🔺	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
MTH125	College Algebra^	4		
or	or	or	Check for prerequisites	
MTH124	Statistics^	3		
	Total	45-46		
	TRATION COURSES: All required.			
DAS121	Dental Assisting Techniques I**	3		
DAS122	Dental Assisting Radiography	3		
DAS123	Dental Assisting Techniques II	3		
DAS124	Dental Assisting Materials	2		
DAS125	Dental Assisting Specialty#	3		
	Introduction to Dental Terminology and			
DAS128	Basic Anatomy	2		
	Total	16		
	TOTAL CREDIT HOURS	61-62		

<sup>^</sup>Based upon SSC placement score

Minimum grade of "C" in all concentration courses is required.

This program requires an application (separate from the College).

Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites. #Applicants may select a dental assisting course option in which to gain specialized skills: Dental Office Management, Community Dentistry or Clinical Dental Assisting. Required course in the Associate of Science Degree in Dental Assisting.

<sup>\*\*</sup>Course may be taken in conjunction with other technical courses, but must be taken in the first semester of technical course work.

**DAS125** 

**PSY121** 

**BIO121** 

COM121

**PSY124** 

SOC225

**BIO122** 

**BUS121** 

ENG230

PHL122

Fourth Semester

Fifth Semester

Credit Hours

3

3

6

4

3

3

3 13

4

3

3

3

13

61-62

Pre- and Co-requisites

**DAS123** 

IDS102 or Proficiency

BIO101 or Proficiency

BIO121 or BIO123

IDS102 or Proficiency

ENG124

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Course Sequence First Semester

Each student should make an appointment to see their advisor every semester before registering for classes. Please have your registration form completed, including the courses you wish to take, for this meeting.

			110 4110 00 100 4151005
SSC101	Student Success Seminar^^	1	Take first semester
DAS121	Dental Assisting Techniques I**	3	·
DAS124	Dental Assisting Materials	2	
DAS128	Introduction to Dental Terminology and Basic Anatomy	2	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MTH125	College Algebra^	4	ž
or	or	or	Check for prerequisites
MTH124	Statistics <sup>^</sup>	<u>3</u>	
		14-15	
Second Semester	<u>r</u>		
BIO101	Introduction to Anatomy and Physiology <sup>^</sup>	3	IDS102 or Proficiency
DAS122	Dental Assisting Radiography	3	
DAS123	Dental Assisting Techniques II	3	DAS121
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
SOC121	Sociology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		15	
Third Semester			

TOTAL CREDITS

Dental Assisting Specialty#

Anatomy and Physiology I (lab) ▲

Anatomy and Physiology II (lab)

Business Administration^

**Business Communication** 

Industrial/Organizational Psychology

General Psychology<sup>^</sup>

Effective Speaking

Cultural Diversity

Ethics

#### Minimum grade of "C" in all concentration courses is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

The semester-by-semester listing below gives the normal scheduling option for full-time associate degree students who plan to finish in two years. Some courses can be scheduled as beginning courses in other semesters depending upon course availability.

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>#</sup>Applicants may select a dental assisting course option in which to gain specialized skills: Dental Office Management, Community Dentistry or Clinical Dental Assisting. Required course in the Associate of Science Degree in Dental Assisting.

<sup>\*\*</sup>Course may be taken in conjunction with other technical courses, but must be taken in the first semester of technical course work.



## ASSOCIATE OF SCIENCE EXPANDED FUNCTIONS DENTAL AUXILIARY

2021 Catalog

Effective Summer 2020

3427 Pre-3428

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357.09(K):15-13-06.

Health and Public Services Division

Allied Dental Health Professions Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN E	EXPERIENCE			
SSC101	Student Success Seminar^^	1	Take First Semester	
COMPUTER A	APPLICATIONS & BUSINESS			
BUS121	Business Administration^	3	IDS102 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
WRITTEN & (	ORAL COMMUNICATION:			
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or ENG011 or Proficiency	
ENG230	Business Communication	3	ENG124	
SOCIAL & BE	HAVIORAL SCIENCES:			
PSY121	General Psychology^	3	IDS102 or Proficiency	
PSY124	Industrial/Organizational Psychology	3		
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity	3		
ARTS & HUM	ANITIES:			
PHL122	Ethics	3		
SCIENCES & 1	MATHEMATICS: 14 credits minimum			
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	T
BIO121	Anatomy and Physiology I (lab) ▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
MTH125	College Algebra^	4		
or MTH124	or Statistics^	or 3	Check for prerequisites	
	TOTAL GENERAL EDUCATION CREDITS	45-46		
AREA OF CO	NCENTRATION COURSES: All required.			
DAS125	Dental Assisting Specialty#	3		
DAS225	Dental Morphology for Expanded Functions Dental Auxiliary	2	Co-DAS226 <b>and</b> Co-DAS227	
DAS226	Expanded Dental Assisting I	2	Co-DAS225 <b>and</b> Co-DAS227	
DAS227	Expanded Dental Assisting II	4	Co-DAS225 <b>and</b> Co-DAS226	
DAS228	Directed Clinical Practice	5	DAS225 and DAS226 and DAS227	
	TOTAL TECHNICAL CREDITS	16	WIIW D11111111	
	TOTAL CREDIT HOURS	61-62		

See reverse side for footnotes.

### **EXPANDED FUNCTIONS DENTAL AUXILIARY**

3427

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Each student should make an appointment to see their advisor every semester before registering for classes. Please have your registration form completed, including the courses you wish to take, for this meeting.

#### Course Sequence

The semester-by-semester listing below gives the normal scheduling option for full-time associate degree students who plan to finish in two years. Some courses can be scheduled as beginning courses in <u>other</u> semesters depending upon course availability and advisor's recommendation.

First Semester		Credit Hours	Pre- and Co-requisites
DAS225	Dental Morphology for Expanded Functions		
	Dental Auxiliary	2	Co-DAS226 and Co-DAS227
DAS226	Expanded Dental Assisting I	2	Co-DAS225 and Co-DAS227
DAS227	Expanded Dental Assisting II	4	Co-DAS225 and Co-DAS226
DAS125	Dental Assisting Specialty#	3	
SSC101	Student Success Seminar^^	<u>1</u>	Take first semester
		12	
Second Semester			
BIO101	Introduction to Anatomy and Physiology <sup>^</sup>	3	IDS102 or Proficiency
DAS228	Directed Clinical Practice	5	DAS225 and DAS226 and DAS227
MTH125	College Algebra^	4	
or	or	or	Check for prerequisites
MTH124	Statistics <sup>^</sup>	<u>3</u>	
		11-12	
Summer Semester			
ENG124	College Composition <sup>^</sup>		Co-ENG024 or ENG011 or Proficiency
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
SOC121	Sociology^	$\frac{3}{12}$	IDS102 or Proficiency
		12	
Fourth Semester			
BIO121	Anatomy and Physiology I (lab) ▲	4	BIO101 or Proficiency
COM121	Effective Speaking	3	
PSY124	Industrial/Organizational Psychology	3 3 13	
SOC225	Cultural Diversity	<u>3</u>	
		13	
Fifth Semester			
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
BUS121	Business Administration <sup>^</sup>	3	IDS102 or Proficiency
ENG230	<b>Business Communication</b>	3	ENG124
PHL122	Ethics	3 13	
		13	
ND 1 000 1	TOTAL CREDITS	61-62	

<sup>^</sup>Based upon SSC placement score

Minimum grade of "C" in all concentration courses is required.

This program requires an application (separate from the College).

Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>#</sup>Applicants must select Option A: Clinical Practice.



### ASSOCIATE OF TECHNICAL STUDIES ATS MASSAGE THERAPY - FALL START

2021 Catalog

Effective Summer 2020

3450

Pre-3452

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121 and MAS123	
MAS123	Massage Therapy Anatomy and Physiology I☆	1		
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 <b>and</b> Pre-Co-BIO122	
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) and Pre-Co-MAS226	
MAS224	Massage Therapy III	2	MAS122	
MAS225	Massage Therapy IV	2	MAS224	
MAS226	Massage Therapy V	3	MAS124 and MAS225	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	MAS122	
MAS229	Clinic Operations	2	MAS225	
BIO124	Human Diseases	3	BIO122 or BIO123	
	Total	30		
NON-TECH				Completed
Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
	Course Title  Anatomy and Physiology I (lab)^▲	Credits 4	Pre- and Co-Requisites BIO101 or Proficiency	-
Course Number			_	-
Course Number BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	-
Course Number BIO121 BIO122	Anatomy and Physiology I (lab)^▲ Anatomy and Physiology II (lab)	4 4	BIO101 or Proficiency	-
Course Number BIO121 BIO122 BIO125	Anatomy and Physiology I (lab)^▲ Anatomy and Physiology II (lab) Medical Terminology	4 4 3	BIO101 or Proficiency	-
BIO121 BIO122 BIO125 COM121	Anatomy and Physiology I (lab)^ Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking	4 4 3 3 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or	-
BIO121 BIO122 BIO125 COM121 ENG124	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab) Medical Terminology Effective Speaking College Composition^	4 4 3 3 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or	-
BIO121 BIO122 BIO125 COM121 ENG124 GER121	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab) Medical Terminology Effective Speaking College Composition^ Introduction to Gerontology	4 4 3 3 3 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency	-
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health^  or	4 4 3 3 3 3 3 3 or	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency	-
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or MTH124	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health^ or  Statistics^ Ω	4 4 3 3 3 3 3 3 or 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency	-
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health^  or	4 4 3 3 3 3 3 3 or	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency	-
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or MTH124 or	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health^  or  Statistics^ Ω  or	4 4 3 3 3 3 3 3 or 3 or	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency	-
Course Number   BIO121     BIO122     BIO125     COM121     ENG124     GER121     ITD122     MTH105     or     MTH124     or     MTH125	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health^ or  Statistics^ Ω or College Algebra Ω	4 4 3 3 3 3 3 3 or 3 or 4	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency	-
Course Number   BIO121     BIO122     BIO125     COM121     ENG124     GER121     ITD122     MTH105     or     MTH124     or     MTH125     PHL122	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health^  or  Statistics^ Ω  or  College Algebra Ω  Ethics	4 4 3 3 3 3 3 0r 3 or 4 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency  Check for prerequisites	-

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

**<sup>★</sup>Indicates only offered as Web 3.** 

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites. ΩMTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

#### 2021 Catalog

Effective Summer 2020

#### ATS MASSAGE THERAPY - FALL START

3450

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

Fall Semester SSC101	Student Success Seminar^^	<u>Credit Hours</u> 1	<u>Pre- and Co-requisites</u> Take first semester
MAS121	Massage Therapy I	6	Tuke jirsi semesier
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency
COM121	Effective Speaking	3	
ENG 124	College Composition^	3	Co-ENG024 or Co-ENG011 or
			Proficiency
MAS123	Massage Therapy Anatomy and Physiology I★	1	
g : g .		18	
Spring Semester	M TI II	2	MAG121 1 MAG122
MAS122	Massage Therapy II	2	MAS121 and MAS123
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 <b>and</b> Pre-Co-BIO122
PSY222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency
MAS224	Massage Therapy III	<u>2</u>	MAS122
WIA5224	Wassage Therapy III	13	WA3122
Summer Semester		13	
BIO124	Human Diseases	3	BIO122 or BIO123
BIO125	Medical Terminology	3	B10122 01 B10123
MAS225	Massage Therapy IV	2	MAS224
MAS228	Professional Practice and Evaluation	<u>1</u>	MAS122
		9	
Fall Semester			
MTH105	Math for Allied Health ^	3	
or	or	or	Check for prerequisites
MTH124	Statistics <sup>^</sup> Ω	3	
or	or	or	
MTH125	College Algebra Ω	4	
MAS223	Massage Therapy Review	3	(BIO122 or BIO123)
3.5.4.5323.6		2	and Pre-Co-MAS226
MAS226	Massage Therapy V	3	MAS124 and MAS225
MAS227	Massage Therapy Procedures	2	MAS121
MAS229	Clinic Operations	<u>2</u>	MAS225
Spring Semester		13-14	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
GER121	Introduction to Gerontology	3	11D100 of 110 liciency
PHL122	Ethics	3	
11111122	Dunes	<u>3</u>	
	TOTAL CREDITS	62-63	
AD 1 CCC 1			

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

<sup>★</sup>Indicates only offered as Web 3.

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

ΩMTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.



## ASSOCIATE OF TECHNICAL STUDIES ATS MASSAGE THERAPY – SPRING START

2021 Catalog

Effective Summer 2020

3450

Pre-3452

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121 and MAS123	
MAS123	Massage Therapy Anatomy and Physiology I☆	1		
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 <b>and</b> Pre-Co-BIO122	
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) and Pre-Co-MAS226	
MAS224	Massage Therapy III	2	MAS122	
MAS225	Massage Therapy IV	2	MAS224	
MAS226	Massage Therapy V	3	MAS124 and MAS225	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	MAS122	
MAS229	Clinic Operations	2	MAS225	
BIO124	Human Diseases	3	BIO122 or BIO123	
	Total	30		
NON-TECH				Completed
Course Number	Course Title	Credits	Pre- and Co-Requisites	Sem./Year
	Course Title  Anatomy and Physiology I (lab)^▲	Credits 4	Pre- and Co-Requisites BIO101 or Proficiency	
Course Number	***************************************		-	
Course Number BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO121 BIO122	Anatomy and Physiology I (lab)^▲ Anatomy and Physiology II (lab)	4 4	BIO101 or Proficiency	
BIO121 BIO122 BIO125	Anatomy and Physiology I (lab)^ A  Anatomy and Physiology II (lab)  Medical Terminology	4 4 3	BIO101 or Proficiency	
BIO121 BIO122 BIO125 COM121	Anatomy and Physiology I (lab)^ A  Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking	4 4 3 3 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or	
BIO121 BIO122 BIO125 COM121 ENG124	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab) Medical Terminology Effective Speaking College Composition^	4 4 3 3 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or	
BIO121 BIO122 BIO125 COM121 ENG124 GER121	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab) Medical Terminology Effective Speaking College Composition^ Introduction to Gerontology	4 4 3 3 3 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency	
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health ^  or	4 4 3 3 3 3 3 3 3 or	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency	
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or MTH124	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health ^ or Statistics^ Ω	4 4 3 3 3 3 3 3 0r 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency	
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health ^  or	4 4 3 3 3 3 3 3 3 or	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency	
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or MTH124 or	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health ^  or  Statistics^ Ω  or	4 4 3 3 3 3 3 3 or 3 or	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency	
BIO121 BIO122 BIO125 COM121 ENG124 GER121 ITD122 MTH105 or MTH124 or MTH125	Anatomy and Physiology I (lab)^ A Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^ Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health ^ or Statistics^ Ω or College Algebra Ω	4 4 3 3 3 3 3 3 0r 3 or 4	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency	
BIO121     BIO122     BIO125     COM121     ENG124     GER121     ITD122     MTH105     or     MTH124     or     MTH125     PHL122	Anatomy and Physiology I (lab)^ A  Anatomy and Physiology II (lab)  Medical Terminology  Effective Speaking  College Composition^  Introduction to Gerontology  Computer Applications for Professionals^  Math for Allied Health ^  or  Statistics^ Ω  or  College Algebra Ω  Ethics	4 4 3 3 3 3 3 3 or 3 or 4 3	BIO101 or Proficiency BIO121 or BIO123  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency  Check for prerequisites	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

**<sup>☆</sup>Indicates only offered as Web 3.** 

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites. ΩMTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

Effective Summer 2020

#### ATS MASSAGE THERAPY - SPRING START

3450

1

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

Spring Semester SSC101	Student Success Seminar^^	<u>Credit Hours</u> 1	<u>Pre- and Co-requisites</u> Take first semester
MAS121	Massage Therapy I	6	y
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency
COM121	Effective Speaking	3	
MAS123	Massage Therapy Anatomy and Physiology I★	<u>1</u>	
		15	
Summer Semester			
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 <b>or</b> Proficiency
MAS122	Massage Therapy II	2	MAS121 and MAS123
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011
		_	or Proficiency
BIO125	Medical Terminology	<u>3</u> 11	
E 11 C		11	
Fall Semester BIO122	Anatomy & Dhysiology II (loh)	4	BIO121 or BIO123
MAS124	Anatomy & Physiology II (lab) Massage Therapy Anatomy and Physiology II☆	4 2	MAS 123 and
WIA5124	Wassage Therapy Anatomy and Thysiology IIA	Z	Pre-Co-BIO122
PSY222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency
MAS224	Massage Therapy III	2	MAS122
MAS225	Massage Therapy IV	2	MAS224
MAS227	Massage Therapy Procedures	2	MAS121
MAS228	Professional Practice and Evaluation	<u>1</u>	MAS122
111110220	Troisessional Fraction and Extraction	16	1,11,12,122
Spring Semester		,	
BIO124	Human Diseases	3	BIO122 or BIO123
MAS223	Massage Therapy Review	3	(BIO122 or BIO123)
			and Pre-Co-MAS226
MAS226	Massage Therapy V	3	MAS225 and MAS124
MAS229	Clinic Operations	<u>2</u>	MAS225
		11	
Summer Semester			
MTH105	Math for Allied Health ^	3	
or	or	or	
MTH124	Statistics <sup>^</sup> Ω	3	Check for prerequisites
or	or	or	
MTH125	College Algebra Ω	4	
GER121	Introduction to Gerontology	3	
PHL122	Ethics	<u>3</u>	
	TOTAL CREDITS	9-10 62-63	
	TOTAL CREDITS	02-03	

<sup>^</sup>Based on SSC placement scores.

#### **★Indicates only offered as Web 3.**

Application criteria requires a "C" or better in BIO101 or HS BIO to apply to the Massage program.

Minimum grade of "C" in all non-technical courses in the program curriculum is required.

Minimum grade of "B" in all MAS technical courses in the program curriculum is required.

This program requires an application (separate from the College).

Please see your advisor to discuss the application process.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites. ΩMTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.



### MAP

## ASSOCIATE OF APPLIED SCIENCE AAS MASSAGE THERAPY - FALL START

3453 Pre-3454

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121 and MAS123	
MAS123	Massage Therapy Anatomy and Physiology I★	1		
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 and Pre-Co-BIO122	
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) and Pre-Co-MAS226	
MAS224	Massage Therapy III	2	MAS122	
MAS225	Massage Therapy IV	2	MAS224	
MAS226	Massage Therapy V	3	MAS124 and MAS225	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	MAS122	
MAS229	Clinic Operations	2	MAS225	
MAS231	Sports Massage	2	MAS121	
BIO124	Human Diseases	3	BIO122 or BIO123	
	TOTAL	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO125	Medical Terminology	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH105	Math for Allied Health ^	3		
or MTH124	or Statistics^ Ω	or 3	Check for prerequisites	
or	or	or	encenjoi prerequisites	
MTH125	College Algebra Ω	4		
NTR121	Nutrition for Health^	3	IDS102 or Proficiency	
PHL122	Ethics	3		
PSY222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency	
EXS110	Anatomy of Exercise	3	Co-BIO122 or Co-BIO123 and Co-EXS110L	
EXS110L	Anatomy of Exercise Lab	1	Co-EXS110	
	TOTAL	31-32		
	TOTAL CREDIT HOURS	62-63		

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course must be taken in the first semester.

**<sup>★</sup>Indicates only offered as Web 3.** 

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

 $<sup>\</sup>Omega\,MTH125\,College\,Algebra\,or\,MTH124\,Statistics\,should\,only\,be\,taken\,by\,students\,planning\,to\,transfer\,to\,a\,four-year\,institution.$ 

Effective Summer 2020

#### **AAS MASSAGE THERAPY - FALL START**

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#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

Fall Semester SSC101	Student Success Seminar^^	Credit Hours	Pre- and Co-requisites Take first semester
MAS121	Massage Therapy I Anatomy and Physiology I (lab)^▲	6 4	DIO101 on Drofision av
BIO121 BIO125	Medical Terminology	3	BIO101 or Proficiency
MAS123	Massage Therapy Anatomy and Physiology I★	<u>1</u>	
		15	
Spring Semester			
MAS122	Massage Therapy II	2	MAS121 and MAS123
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 and
			Pre-Co-BIO122
PSY222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency
MAS224	Massage Therapy III	<u>2</u>	MAS122
g g ,		13	
Summer Semester	H Di	2	DIO122 am DIO122
BIO124 ENG124	Human Diseases	3	BIO122 or BIO123 Co-ENG024 or Co-ENG011
ENG124	College Composition^	3	or Proficiency
MAS225	Massage Therapy IV	2	MAS224
MAS228	Professional Practice and Evaluation	<u>1</u>	MAS122
WII 10220	1 Totessional 1 factice and Evaluation	9	1417 15122
Fall Semester		,	
MTH105	Math for Allied Health ^	3	
or	or	or	
MTH124	Statistics <sup>^</sup> Ω	3	Check for prerequisites
or	or	or	
MTH125	College Algebra Ω	4	
MAS223	Massage Therapy Review	3	(BIO122 or BIO123)
			and Pre-Co-MAS226
MAS226	Massage Therapy V	3	MAS124 and MAS225
MAS227	Massage Therapy Procedures	2	MAS121
MAS229	Clinic Operations	<u>2</u>	MAS225
Ci C		13-14	
Spring Semester MAS231	Cmarta Massaga	2	MAS121
NTR121	Sports Massage Nutrition for Health^	2 3	IDS102 or Proficiency
EXS110	Anatomy of Exercise	3	Co-BIO122 or Co-BIO123 and
EASTIO	Anatomy of Exercise	3	Co-EXS110L
EXS101L	Anatomy of Exercise Lab	1	Co-EXS110E
PHL122	Ethics	<u>3</u>	CO 12/15/110
		12	
	TOTAL CREDITS	62-63	
1 000 1			

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course must be taken in the first semester.

**<sup>★</sup>Indicates only offered as Web 3.** 

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## ASSOCIATE OF APPLIED SCIENCE AAS MASSAGE THERAPY - SPRING START

**2021 Catalog**Effective Summer 2020

3453

Pre-3454

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121 and MAS123	
MAS123	Massage Therapy Anatomy and Physiology I★	1		
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 and Pre-Co-BIO122	
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) and Pre-Co-MAS226	
MAS224	Massage Therapy III	2	MAS122	
MAS225	Massage Therapy IV	2	MAS224	
MAS226	Massage Therapy V	3	MAS124 and MAS225	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	MAS122	
MAS229	Clinic Operations	2	MAS225	
MAS231	Sports Massage	2	MAS121	
BIO124	Human Diseases	3	BIO122 or BIO123	
	TOTAL	31		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO125	Medical Terminology	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
MTH105 or MTH124 or MTH125	Math for Allied Health $^{\circ}$ or Statistics $^{\circ}\Omega$ or College Algebra $\Omega$	3 or 3 or 4	Check for prerequisites	
NTR121	Nutrition for Health^	3	IDS102 or Proficiency	
PHL122	Ethics	3	-	
PSY222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency	
EXS110	Anatomy of Exercise	3	Co-BIO122 or Co-BIO123 and Co-EXS110L	
EXS110L	Anatomy of Exercise Lab	1	Co-EXS110	
	TOTAL	31-32		
	TOTAL CREDIT HOURS	62-63		

<sup>^</sup>Based on SSC placement scores

 $\Omega\,MTH125\,College\,Algebra\,or\,MTH124\,Statistics\,should\,only\,be\,taken\,by\,students\,planning\,to\,transfer\,to\,a\,four-year\,institution.$ 

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

**<sup>☆</sup>**Indicates only offered as Web 3.

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Effective Summer 2020

### AAS MASSAGE THERAPY - SPRING START

3453

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

Spring Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MAS121	Massage Therapy I	6	DIO101 D . C .
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency
BIO125 MAS123	Medical Terminology Massage Therapy Anatomy and Physiology I☆	3	
WIA3123	Wassage Therapy Anatomy and Physiology 14	1 15	
Summer Semester		13	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
MAS122	Massage Therapy II	2	MAS121 and MAS123
PSY222	Psychological Aspects of Therapy^		IDS102 or Proficiency
		<u>3</u>	
Fall Semester			
BIO124	Human Diseases	3	BIO122 or BIO123
MAS124	Massage Therapy Anatomy and Physiology II★	2	MAS123 and
			Pre-Co-BIO122
MAS224	Massage Therapy III	2	MAS122
MAS225	Massage Therapy IV	2	MAS224
MAS227	Massage Therapy Procedures	2	MAS121
MAS228	Professional Practice and Evaluation	<u>1</u>	MAS122
		12	
Spring Semester	M m b '	2	(DIO122 DIO122)
MAS223	Massage Therapy Review	3	(BIO122 or BIO123)
MAS226	Massage Thomas V	2	and Pre-Co-MAS226 MAS124 and MAS225
MAS229	Massage Therapy V Clinic Operations	3 2	MAS124 and MAS223 MAS225
MAS231	Sports Massage	2	MAS121
EXS110	Anatomy of Exercise	3	Co-BIO122 or Co-BIO123 and
LASTIO	Thatomy of Exercise	3	Co-EXS110L
EXS110L	Anatomy of Exercise Lab	<u>1</u>	Co-EXS110
21101102	Timetomy of Energie Euc	14	G0 <b>241</b> 5110
<u>Summer</u>			
MTH105	Math for Allied Health ^	3	
or	or	or	
MTH124	Statistics <sup>Λ</sup> Ω	3	Check for prerequisites
or	or	or	
MTH125	College Algebra Ω	4	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
NTR121	Nutrition for Health <sup>^</sup>	3	IDS102 or Proficiency
PHL122	Ethics	<u>3</u>	-
		12-13	
	TOTAL CREDITS	62-63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>★</sup>Indicates only offered as Web 3.

A Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Ω MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.



# ONE-YEAR CERTIFICATE MASSAGE THERAPY – FALL START

**2021 Catalog**Effective Summer 2020

ective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121 and MAS123	
MAS123	Massage Therapy Anatomy and Physiology I☆	1		
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 <b>and</b> Pre-Co-BIO122	
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) and Co-MAS226	
MAS224	Massage Therapy III	2	MAS122	
MAS225	Massage Therapy IV	2	MAS224	
MAS226	Massage Therapy V	3	MAS225 and MAS124 and Co-MAS223	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	MAS122	
MAS229	Clinic Operations	2	MAS225	
	Total	27		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
PSY222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency	
	Total	14		
	TOTAL CREDIT HOURS	41		

<sup>^</sup>Based on SSC placement scores.

Application criteria requires a "C" or better in BIO101 or HS BIO to apply to the Massage program. Minimum grade of "C" in all non-technical courses in the program curriculum is required. Minimum grade of "B" in all MAS technical courses in the program curriculum is required.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

**<sup>☆</sup>Indicates only offered as Web 3.** 

ABecause of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

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### ONE-YEAR CERTIFICATE MASSAGE THERAPY – FALL START

3451

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

Fall Semester		Credit	Pre- and Co-requisites
000101	G. 1 G G AA	<u>Hours</u>	T. I. C.
SSC101	Student Success Seminar^^	1	Take first semester
MAS121	Massage Therapy I	6	
BIO121	Anatomy and Physiology I (lab)▲	4	BIO101 or Proficiency
MAS123	Massage Therapy Anatomy and Physiology I★	1	
PSY222	Psychological Aspects of Therapy^	<u>3</u>	IDS102 or Proficiency
		15	
Spring Semester			
MAS122	Massage Therapy II	2	MAS121 and MAS123
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 and Pre-Co-BIO122
MAS224	Massage Therapy III	<u>2</u>	MAS122
		10	
Summer Semester			
BIO124	Human Diseases	3	BIO122 or BIO123
MAS225	Massage Therapy IV	2	MAS224
MAS228	Professional Practice and Evaluation	<u>1</u>	MAS122
		6	
Fall Semester			
MAS223	Massage Therapy Review	3	(BIO122 or BIO123)
			and Co-MAS226
MAS226	Massage Therapy V	3	MAS225 and MAS124 and Co-MAS223
MAS227	Massage Therapy Procedures	2	MAS121
MAS229	Clinic Operations	<u>2</u>	MAS225
1111 10227	Chine Operations	<u>2</u> 10	WI 10223
	TOTAL CREDITS	41	
	IUIAL CKEDIIS	41	

<sup>^</sup>Based on SSC placement scores.

Application criteria requires a "C" or better in BIO101 or HS BIO to apply to the Massage program.

Minimum grade of "C" in all non-technical courses in the program curriculum is required.

Minimum grade of "B" in all MAS technical courses in the program curriculum is required.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

**<sup>★</sup>Indicates only offered as Web 3.** 

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.



# ONE-YEAR CERTIFICATE MASSAGE THERAPY - SPRING START

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121 and MAS123	
MAS123	Massage Therapy Anatomy and Physiology I★	1		
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 and Pre-Co-BIO122	
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) and Co-MAS226	
MAS224	Massage Therapy III	2	MAS122	
MAS225	Massage Therapy IV	2	MAS224	
MAS226	Massage Therapy V	3	MAS225 and MAS124 and Co-MAS223	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	MAS122	
MAS229	Clinic Operations	2	MAS225	
	Total	27		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
PSY222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency	
	Total	14		
	TOTAL CREDIT HOURS	41		

<sup>^</sup>Based on SSC placement scores.

Application criteria requires a "C" or better in BIO101 or HS BIO to apply to the Massage program. Minimum grade of "C" in all non-technical courses in the program curriculum is required. Minimum grade of "B" in all MAS technical courses in the program curriculum is required.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

**<sup>☆</sup>**Indicates only offered as Web 3.

ABecause of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

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## ONE-YEAR CERTIFICATE MASSAGE THERAPY - SPRING START

3451

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

Spring Semester		Credit	Pre- and Co-requisites
000101	Gr. 1 G G AA	<u>Hours</u>	
SSC101	Student Success Seminar^^	1	Take first semester
MAS121	Massage Therapy I	6	
BIO121	Anatomy and Physiology I (lab) <sup>^</sup> ▲	4	BIO101 or Proficiency
MAS123	Massage Therapy Anatomy and Physiology I★	1	
PSY222	Psychological Aspects of Therapy <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		15	
Summer Semester			
MAS122	Massage Therapy II	<u>2</u>	MAS121 and MAS123
		2	
Fall Semester			
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
MAS124	Massage Therapy Anatomy and Physiology II☆	2	MAS123 and Pre-Co-BIO122
MAS224	Massage Therapy III	2	MAS122
MAS225	Massage Therapy IV	2	MAS224
MAS228	Professional Practice and Evaluation	<u>1</u>	MAS122
		11	
Spring Semester			
BIO124	Human Diseases	3	BIO122 or BIO123
MAS223	Massage Therapy Review	3	(BIO122 or BIO123)
		_	and Co-MAS226
MAS226	Massage Therapy V	3	MAS225 and MAS124 and Co-MAS223
MAS227	Massage Therapy Procedures	2	MAS121
MAS229	Clinic Operations	<u>2</u>	MAS225
WIAG223	Chine Operations		WIAS223
	TOTAL OPENIES	13	
	TOTAL CREDITS	41	

<sup>^</sup>Based on SSC placement scores.

Application criteria requires a "C" or better in BIO101 or HS BIO to apply to the Massage program.

Minimum grade of "C" in all non-technical courses in the program curriculum is required.

Minimum grade of "B" in all MAS technical courses in the program curriculum is required.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

**<sup>★</sup>Indicates only offered as Web 3.** 

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.



## ASSOCIATE OF TECHNICAL STUDIES MEDICAL INSTRUMENT STERILIZATION TECHNICIAN

2021 Catalog

Effective Summer 2020

3500 Pre-3502

MAP

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Respiratory, Laboratory, and Surgical Technology Dept.

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MIS124	Medical Instrument Sterilization I ▲-	4	BIO101	
MIS125	Medical Instrument Sterilization I/Directed Practice ▲-	2	(BIO125 or Co-BIO125) and Pre-Co-MIS124	
MIS126	Medical Instrument Sterilization II ▲+	4	MIS124	
MIS127	Medical Instrument Sterilization II/Directed Practice ▲+	3	MIS125 <b>and</b> Pre-Co- MIS126	
MIS123	Introduction to Surgical Terminology/Microbiology ▲+	3	MIS124	
MIS222	Medical Instrument Sterilization III ▲*	2	MIS123 and MIS126	
MIS223	Medical Instrument Sterilization III/Directed Practice ▲*	1	MIS127 <b>and</b> Pre-Co- MIS222	
BIO123	Principles of Human Structure and Function (lab)#	5	BIO101 or Proficiency	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO101	Introduction to Anatomy and Physiology <sup>^</sup>	3	IDS102 or Proficiency	
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH105	Math for Allied Health <sup>^</sup>	3		
or MTH124	or Statistics ^ Ω	<b>or</b> 3	Check for prerequisites	
or	or	or	v 1 1	
MTH125	College Algebra <sup>^</sup> Ω	4		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PHL122	Ethics	3	, and the second	
	Social Science Elective^*	3	IDS102 or Proficiency	
	Total	32-33	,	
	TOTAL CREDIT HOURS	62-63		

<sup>^</sup>Based on SSC placement scores.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

This program requires an application (separate from the College).

Please see your advisor to discuss the application process.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Ω MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

<sup>#</sup>BIO121 and BIO122 can be substituted for BIO123.

<sup>\*</sup>May select from Sociology offerings only ▲+ Spring only courses. Please see your academic advisor for availability.

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲\*</sup> Summer only courses. Please see your academic advisor for availability.

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below gives the normal scheduling option for full-time associate degree students who plan to finish in two years. Some courses can be scheduled as beginning courses in <u>other</u> semesters depending upon course availability and advisor's recommendation.

### Medical Instrument Sterilization courses must be taken in the order listed below.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BIO101	Introduction to Anatomy and Physiology <sup>^</sup>	3	IDS102 or Proficiency
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
			Proficiency
BIO125	Medical Terminology	3	
MIS124	Medical Instrument Sterilization I▲-	4	BIO101
MIS125	Medical Instrument Sterilization I/Directed Practice ▲-	<u>2</u>	(BIO125 or Co-BIO125)
		16	and Pre-Co-MIS124
0 10		16	
Second Semeste		2	MIC124
MIS123	Introduction to Surgical Terminology/Microbiology ▲+ Medical Instrument Sterilization II ▲+	3	MIS124 MIS124
MIS126		4	
MIS127 MTH105	Medical Instrument Sterilization II/Directed Practice ▲+ Math for Allied Health^	3 3	MIS125 and Pre-Co-MIS126
or MTH124	or Statistics^Ω	<b>or</b> 3	
		_	Check for prerequisites
or	<b>or</b> College Algebra^ Ω	or	
MTH125	Concge Aigeora 22	<u>4</u>	
G		13-14	
Summer Nuscee	Marian and the state of the sta	2	MG122 1MG126
MIS222	Medical Instrument Sterilization III ▲*	2	MIS123 and MIS126
MIS223	Medical Instrument Sterilization III/Directed Practice ▲*	1	MIS127 and Pre-Co-MIS222
PHL122	Ethics	<u>3</u>	
Thind Comments		0	
Third Semester BIO123	Dain sinds of Hanney Competent and Franction (lab)#	<i>E</i>	DIO101 on Durfision on
COM122	Principles of Human Structure and Function (lab)# Interpersonal Communication	5 3	BIO101 or Proficiency
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 on Proficionay
PSY121	General Psychology <sup>^</sup>	<u>3</u>	ITD100 <b>or</b> Proficiency IDS102 <b>or</b> Proficiency
F31121	General r sychology	<u>3</u> 14	1DS102 of Fioriciency
Fourth Semester		14	
BIO124	Human Diseases	3	BIO122 or BIO123
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141
COM121	Effective Speaking	3	DIO122 01 DIO123 01 DIO141
Social Science E		<u>3</u>	IDS102 <b>or</b> Proficiency
Social Science L	meente	13	125102 of Honeleney
	TOTAL CREDITS	62-63	

See page one for footnotes.



## ONE-YEAR CERTIFICATE MEDICAL INSTRUMENT STERILIZATION TECHNICIAN

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Respiratory, Laboratory, and Surgical Technology Dept.

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MIS124	Medical Instrument Sterilization I▲-	4	BIO101	
MIS125	Medical Instrument Sterilization I/Directed Practice ▲-	2	Pre-Co-BIO125 and Pre-Co-MIS124	
MIS126	Medical Instrument Sterilization II ▲+	4	MIS124	
MIS127	Medical Instrument Sterilization II/Directed Practice ▲+	3	MIS125 and Pre-Co- MIS126	
MIS123	Introduction to Surgical Terminology/Microbiology ▲+	3	MIS124	
MIS222	Medical Instrument Sterilization III ▲*	2	MIS123 and MIS126	
MIS223	Medical Instrument Sterilization III/ Directed Practice ▲*	1	MIS127 and Pre-Co- MIS222	
	Total	19		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
ENG124	College Composition^	3	Co-ENG024 or Co- ENG011 or Proficiency	
PHL122	Ethics	3		
	Total	13		
	TOTAL CREDIT HOURS	32		

<sup>^</sup>Based on SSC placement scores.

Application criteria require ENG011 or required placement score and IDS102 or required placement score.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲+</sup> Spring only courses. Please see your academic advisor for availability.

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

**<sup>▲</sup>**\* Summer only courses. Please see your academic advisor for availability.

#### **ONE-YEAR CERTIFICATE**

MEDICAL INSTRUMENT STERILIZATION TECHNICIAN

3501

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

#### Medical Instrument Sterilization courses must be taken in the order listed below.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency
MIS124	Medical Instrument Sterilization I▲-	4	BIO101
MIS125	Medical Instrument Sterilization I/Directed Practice ▲-	2	Pre-Co-BIO125
			and Pre-Co-MIS124
BIO125	Medical Terminology	<u>3</u>	
		13	
Second Semester			
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011
			or Proficiency
MIS126	Medical Instrument Sterilization II ▲+	4	MIS124
MIS127	Medical Instrument Sterilization II/Directed Practice ▲+	3	MIS125 and Pre-Co-MIS126
MIS123	Introduction to Surgical Terminology/Microbiology ▲+	<u>3</u>	MIS124
		13	
<u>Summer</u>			
MIS222	Medical Instrument Sterilization III ▲*	2	MIS123 and MIS126
MIS223	Medical Instrument Sterilization III/Directed	1	MIS127 andPre- Co-
	Practice ▲*		MIS222
PHL122	Ethics	<u>3</u>	
		6	
	TOTAL CREDITS	32	

<sup>^</sup>Based on SSC placement scores

 $Application\ criteria\ require\ ENG011\ or\ required\ placement\ score\ and\ IDS102\ or\ required\ placement\ score.$ 

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

 $<sup>\</sup>blacktriangle + Spring$  only courses. Please see your academic advisor for availability.

<sup>▲-</sup> Fall only courses. Please see your academic advisor for availability.

<sup>▲\*</sup> Summer only courses. Please see your academic advisor for availability.



### MAP

### ASSOCIATE OF SCIENCE

**DIETETIC TECHNICAN** 

changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

The catalog in force is assigned to students based on the academic year they first applied to the college, and

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Pre-3561

#### Health and Public Services Division

Therapy & Wellness Programs Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN	EXPERIENCE			
SSC101	Student Success Seminar^	1	Take first semester	
WRITTEN &	ORAL COMMUNICATION			
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121	Effective Speaking	3		
SOCIAL & B	EHAVIORAL SCIENCES: 6 credit hours ma	inimum		
	Social & Behavioral Sciences Elective <sup>1</sup>	6	Check for prerequisites	
ARTS & HUM	IANITIES: 6 credit hours minimum	•		
	Arts & Humanities Elective <sup>2</sup>	3	Check for prerequisites	
PHL122	Ethics (required)	3		
NATURAL &	PHYSICAL SCIENCES	•		
BIO121	Anatomy and Physiology I^ (lab)	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CORE MATH	IEMATICS & DATA ANALYSIS COURS	ES: 3 cred	it hours minimum	
MTH124	Statistics <sup>^</sup> Ω	3		
or	or	or		
MTH125	College Algebra <sup>^</sup> Ω	4	Check for prerequisites	
0r	Or	or		
MTH105	Math for Allied Health^	3		
	TOTAL	37-38		

<sup>^</sup>Based on SSC placement scores.

This coursework complies with the requirements of the Accreditation Council for Education in Nutrition and Dietetics.

This program requires an application (separate from the College).

Please see your advisor to discuss the application process.

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed prerequisites.

 $<sup>\</sup>Omega$  MTH125 College Algebra or MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>&</sup>lt;sup>1</sup>Social & Behavioral Sciences Electives: PSY121, PSY123, PSY124, PSY222, SOC121, SOC122, SOC123, SOC225

Three hours must be in the PSY electives and three hours must be in the SOC electives.

<sup>&</sup>lt;sup>2</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, HIS221, HIS222

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### **AS - DIETETIC TECHNICAN**

**3560** 

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
Concentration (				
DTR121	Food Science Principles	3		
DTR122	Life Cycle Nutrition	3	NTR121	
DTR223	Nutrition/MNT Directed Practice	2	Permission	
DTR225	Community Nutrition	3	NTR121	
DTR226	Community Nutrition Directed Practice	2	Permission	
DTR228	Dietary Systems	3		
DTR229	Professional Dietetics	1	Permission	
DTR231	Foodservice Directed Practice	2	Permission	
DTR235	Medical Nutrition Therapy I	3	NTR122	
DTR236	Medical Nutrition Therapy II	3	DTR235	
NTR121	Nutrition for Health	3	IDS102 or proficiency	
NTR122	Introduction to Medical Nutrition Therapy	1	NTR121	
NTR130	Food Operations	3	Co-NTR130L	
NTR130L	Food Operations Lab	1	Co-NTR130	
	TOTAL	33		
	TOTAL CREDIT HOURS	70-71		

See page one for footnotes

### **AS - DIETETIC TECHNICAN**

Effective Summer 2020

### 3560

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### Elective Additional Credit

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit u-select at <a href="http://www.transfer.org/uselect">http://www.transfer.org/uselect</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^	1	Take first semester
Arts & Humanities		3	Check for prerequisites
DTR121	Food Science Principles	3	
MTH124	Statistics $^{\wedge}$ $\Omega$	3	
or	or	or	
MTH125	College Algebra $^{\wedge}\Omega$	4	
or	or	or	Check for prerequisites
MTH105	Math for Allied Health^	3	
NTR121	Nutrition for Health	3	IDS102 or Proficiency
NTR130	Food Operations	3	Co-NTR130L
NTR130L	Food Operations Lab	<u>1</u>	Co-NTR130
G 1G .		17-18	
Second Semester BIO121	Anatomy and Physiology I (lab) ^^	4	BIO101 or Proficiency
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011
LIVO124	Conege Composition	3	or proficiency
NTR122	Introduction to Medical Nutrition Therapy	1	NTR121
DTR228	Dietary Systems	3	TVIKI21
DTR231	Foodservice Directed Practice	2	Permission
D111231	1 soulset vice Birocked 1 facilee	2	Termission
Social & Behavior	al Sciences Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		16	
Summer Semester			
COM121	Effective Speaking	3	
Social & Behavior	al Sciences Elective <sup>1</sup>	<u>3</u>	Check for prerequisites
		6	
Third Semester			
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
DTR225	Community Nutrition	3	NTR121
DTR226	Community Nutrition Directed Practice	2	Permission
DTR235	Medical Nutrition Therapy I	3	NTR122
ENG221	Technical Report Writing	<u>3</u>	ENG124
		15	
Fourth Semester			
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141
PHL122	Ethics (required)	3	
DTR122	Life Cycle Nutrition	3	NTR121
DTR223	Nutrition/MNT Directed Practice	2	Permission
DTR229	Professional Dietetics	1	Permission
DTR236	Medical Nutrition Therapy II	<u>3</u>	DTR235
	••	16	
	TOTAL CREDITS	70-71	

See page one for footnotes



# ASSOCIATE OF SCIENCE DIETARY MANAGER

2021 Catalog

Effective Summer 2020

3562 Pre-3563

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN	EXPERIENCE			
SSC101	Student Success Seminar^^	1	Take first semester	
WRITTEN &	ORAL COMMUNICATION: 9 credit hours	s minimum		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121	Effective Speaking	3		
SOCIAL & BI	EHAVIORAL SCIENCES: 6 credit hours mi	inimum		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
ARTS & HUM	IANITIES: 6 credit hours minimum	•		
	Arts & Humanities Elective <sup>1</sup>	6	Check for prerequisites	
NATURAL SO	CIENCES: 12 credit hours minimum			
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO123	Principles of Human Structure and Function#	5	BIO101 or Proficiency	
BIO221	Principles of Microbiology	4	BIO122 or BIO123 or BIO141	
MATHEMAT	ICS: 3 credit hours minimum			
MTH105	Math for Allied Health^	3		
or MTH125	or College AlgebraΩ^	<b>or</b> 4		
or	or	or	Check for prerequisites	
MTH124	Statistics $\Omega^{\wedge}$	3		
	TOTAL	37-38		

<sup>^</sup>Based on SSC placement scores.

This coursework is in compliance with the requirements of the Association of Nutrition and Foodservice Professionals.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Ω MTH125 College Algebra or MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>&</sup>lt;sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222

<sup>#</sup> BIO121 and BIO122 can be substituted for BIO123

### **DIETARY MANAGER**

3562

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
Concentration	Core: All are required			
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
NTR121	Nutrition for Health^	3	IDS102 or Proficiency	
NTR130	Food Operations	3		
NTR122	Introduction to Medical Nutrition Therapy	1	NTR121	
DTR228	Dietary Systems	3		
MAT103	Medical Law and Ethics	3		
DMA135	Food Operations Directed Practice	1	Co-NTR130 or Permission	
DMA145	Medical Nutrition Therapy Directed Practice	1	NTR121 <b>and</b> Co-NTR122 <b>or</b> Permission	
DMA155	Dietary Systems Directed Practice	1	Co-DTR228 or Permission	
DTR122	Life Cycle Nutrition	3	NTR121	
DTR121	Food Science Principles	3		
	TOTAL	25		
	TOTAL CREDIT HOURS	62-63		

<sup>^</sup>Based on SSC placement scores.

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### Elective Additional Credit

Self-selection of course and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester	·	Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
IDT122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011
			or Proficiency
DMA135	Food Operations Directed Practice	1	Co-NTR130 or Permission
NTR121	Nutrition for Health <sup>^</sup>	3	IDS102 or Proficiency
NTR130	Food Operations	<u>3</u>	
		14	
Second Semester			
Arts & Humanities E	Elective <sup>1</sup>	3	Check for prerequisites
BIO101	Introduction to Anatomy and Physiology <sup>^</sup>	3	IDS102 or Proficiency
DMA145	Medical Nutrition Therapy Directed Practice	1	NTR121 and Co-NTR122 or Permission
DMA155	Dietary Systems Directed Practice	1	Co-DTR228 or Permission
DTR228	Dietary Systems	3	
NTR122	Introduction to Medical Nutrition Therapy	<u>1</u>	NTR121
		12	
Third Semester			
ENG221	Technical Report Writing	3	ENG124
SOC121	Sociology^	<u>3</u> <b>6</b>	IDS102 or Proficiency
		6	
Fourth Semester			
DTR121	Food Science Principles	3	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
MTH105	Math for Allied Health <sup>^</sup>	3	
or	or	or	
MTH125	College Algebra $\Omega^{\wedge}$	4	Check for prerequisites
or	or	or	
MTH124	Statistics $\Omega^{\wedge}$	3	
BIO123	Principles of Human Structure and Function#	<u>5</u>	BIO101 or Proficiency
		14-15	
<u>Fifth Semester</u>			
Arts & Humanities E		3	Check for prerequisites
COM121	Effective Speaking	3	
DTR122	Life Cycle Nutrition	3	NTR121
BIO221	Principles of Microbiology	4	BIO122 or BIO123 or BIO141
MAT103	Medical Law and Ethics	<u>3</u>	
		16	
	TOTAL CREDITS	62-63	

See page one for footnotes



### **ONE-YEAR CERTIFICATE DIETARY MANAGER**

2021 Catalog

Effective Summer 2020

3564 Pre-3565

 $The\ catalog\ in\ force\ is\ assigned\ to\ students\ based\ on\ the\ academic\ year\ they\ first\ applied\ to\ the\ college,\ and$ changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
NTR130	Food Operations	3		
NTR122	Introduction to MNT	1	NTR121	
DTR122	Life Cycle Nutrition	3	NTR121	
DTR228	Dietary Systems	3		
DMA135	Food Operations Directed Practice	1	Co-NTR130 or Permission	
DMA145	MNT Directed Practice	1	Co-NTR121 or Permission	
DMA155	Dietary Systems Directed Practice	1	Co-DTR228 or Permission	
	TOTAL	16		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO101	Introduction to Anatomy & Physiology^	3	IDS102 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
COM121	Effective Speaking	3	·	
MAT103	Medical Law and Ethics	3		
MTH125	College Algebra Ω^	4		
or MTH105 or	or Math for Allied Health^ or	or 3 or	Check for prerequisites	
MTH124	Statistics <sup>Δ</sup> Ω	3		
NTR121	Nutrition for Health	3	IDS102 or Proficiency	
	TOTAL	19-20		
	TOTAL CREDIT HOURS	35-36		

<sup>^</sup>Based on SSC placement scores.

This coursework is in compliance with the requirements of the Association of Nutrition and Foodservice Professionals.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

 $<sup>\</sup>Omega$  MTH125 College Algebra or MTH124 should only be taken by students planning to transfer to a four-year institution.

## ONE-YEAR CERTIFICATE **DIETARY MANAGER**

3564

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Each student should make an appointment to see their advisor every semester before registering for classes. Please have your registration form completed, including the courses you wish to take, for this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
DMA135	Food Operations Directed Practice	1	Co-NTR130 or Permission
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
MAT103	Medical Law and Ethics	3	
NTR121	Nutrition for Health	3	IDS102 or Proficiency
NTR130	Food Operations	<u>3</u> 14	
Second Semester			
BIO101	Introduction to Anatomy and Physiology	3	IDS102 or Proficiency
DMA145	MNT Directed Practice	1	Co-NTR121 or Permission
DMA155	Dietary Systems Directed Practice	1	Co-DTR228 or Permission
DTR122	Life Cycle Nutrition	3	NTR121
DTR228	Dietary Systems	3	
NTR122	Introduction to MNT	$\frac{1}{12}$	NTR121
Third Semester			
COM121	Effective Speaking	3	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
MTH125	College Algebra $\Omega^{\wedge}$	4	•
or MTH105	<b>or</b> Math for Allied Health^	<b>or</b> 3	Check for prerequisites
or	or	or	check for prerequisites
MTH124	Statistics <sup>^</sup> Ω	3	
		9-10	
	TOTAL CREDITS	35-36	

See first page for footnotes



# CAREER ENHANCEMENT CERTIFICATE Medical Billing Specialist

Medical Billing Specialist

The catalog in force is assigned to students based on the academic year they first applied to the college,

and changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

**2021 Catalog**Effective Summer 2020

3057

Health and Public Services Division

Medical Technology Programs Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
HIT101	Introduction to Medical Billing	3		
HIT102	Medical Claims Methodology	4	HIT101	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
HIT123	Healthcare Legal and Ethical Issues	2	HIT230 <b>or</b> Co-HIT121	
HIT230	Health Care Delivery in the U.S.	2		
	TOTAL CREDIT HOURS	21		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency
HIT101	Introduction to Medical Billing	3	
HIT230	Health Care Delivery in the U.S.	<u>2</u>	
		9	
Second Semester			
BIO125	Medical Terminology	3	
HIT123	Healthcare Legal and Ethical Issues	2	HIT230 <b>or</b> Co-HIT121
HIT102	Medical Claims Methodology	4	HIT101
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		12	
	TOTAL CREDITS	21	

<sup>^</sup>Based upon SSC placement score

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.



### CAREER ENHANCEMENT CERTIFICATE **Phlebotomy Technician**

2021 Catalog Effective Summer 2020

3102

#### The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Medical Technology Programs Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
COM122	Interpersonal Communications	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MAT234	Introduction to Phlebotomy	3	IDS102 or Proficiency	
MAT235	Phlebotomy Practicum	1	MAT234	
	TOTAL CREDIT HOURS	17		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MAT234	Introduction to Phlebotomy	3	IDS102 or Proficiency
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency
BIO125	Medical Terminology	<u>3</u>	
		10	
Second Semester			
MAT235	Phlebotomy Practicum	1	MAT234
COM122	Interpersonal Communications	3	
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		7	
	TOTAL CREDITS	17	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester.



# CAREER ENHANCEMENT CERTIFICATE OPHTHALMIC ASSISTANT

2021 Catalog

Effective Summer 2020

3366



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Medical Technology Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
OPH100	Introduction to Ophthalmology Profession	3	Co-OPH101 and Co-OPH102	
OPH101	Ophthalmic Procedures I	4	Co-OPH100 and Co-OPH102	
OPH102	Ocular Anatomy and Physiology	1	Co-OPH100 and Co-OPH101	
OPH103	Ophthalmic Procedures II	4	OPH102 and Co-OPH105 and Co-OPH106	
OPH105	Ocular Diseases	2	Co-OPH103 and Co-OPH106	
OPH106	Ocular Pharmacology	2	Co-OPH103 and Co-OPH105	
	Total	16		
	TOTAL CREDIT HOURS	16		

#### **FULL-TIME STUDENT ADVISING NOTES**

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option to finish in one year.

First Semester		Credit Hours	Pre- and Co-requisites
OPH100	Introduction to Ophthalmology Profession	3	Co-OPH101 and OPH102
OPH101	Ophthalmic Procedures I	4	Co-OPH100 and OPH102
OPH102	Ocular Anatomy and Physiology	<u>1</u>	Co-OPH100 and Co-OPH101
	, , ,	8	
Second Semester			
OPH103	Ophthalmic Procedure II	4	OPH102 and Co-OPH105 and
			Co-OPH106
OPH105	Ocular Diseases	2	Co-OPH103 and Co-OPH106
OPH106	Ocular Pharmacology	<u>2</u>	Co-OPH103 and Co-OPH105
	-	8	
	TOTAL CREDITS	16	

Students must be currently working in the field or have 6 months of previous working experience in ophthalmology to apply.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.



### CAREER ENHANCEMENT CERTIFICATE OPHTHALMIC TECHNICIAN

2021 Catalog

Effective Summer 2020

3367



The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Medical Technology Programs Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
OPH200	Ophthalmic Procedures III	4	OPH103 <b>or</b> Program Coordinator approval	
OPH202	Ophthalmic Procedures IV	4	OPH200	
	Total	8		
	TOTAL CREDIT HOURS	8		_

#### **FULL-TIME STUDENT ADVISING NOTES**

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students who plan to finish in one year.

First Semester		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
OPH200	Ophthalmic Procedures III	<u>4</u>	OPH103 or Program Coordinator
	•		approval
		4	**
Second Semester			
OPH202	Ophthalmic Procedures IV	<u>4</u>	OPH200
	•	$\overline{4}$	
	TOTAL CREDITS	8	

 $Students\ must\ currently\ work\ in\ the\ field\ or\ have\ 6\ month\ previous\ working\ experience\ in\ ophthalmology\ and\ hold\ COA\ certification\ to\ apply.$ 

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.



### CAREER ENHANCEMENT CERTIFICATE DENTAL ASSISTING

**2021 Catalog** Effective Summer 2020

3403

MAP

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

#### Allied Dental Health Professions Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co- Requisites	Completed Sem./Year
DAS121	Dental Assisting Techniques I**	3		
DAS122	Dental Assisting Radiography	3		
DAS123	Dental Assisting Techniques II	3	DAS121	
DAS124	Dental Assisting Materials	2		
DAS125	Dental Assisting Specialty#	3	DAS123	
DAS128	Introduction to Dental Terminology and Basic Anatomy	2		
	Total	16		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credits Hours	Pre- and Co-requisites
DAS121	Dental Assisting Techniques I**	3	
DAS122	Dental Assisting Radiography	3	
DAS123	Dental Assisting Techniques II	3	DAS121
DAS124	Dental Assisting Materials	2	
DAS128	Introduction to Dental Terminology and Basic Anatomy	<u>2</u>	
	•	13	
Second Semester			
DAS125	Dental Assisting Specialty#	3	DAS 123

#### TOTAL CREDITS 16

Minimum grade of "C" in all technical courses is required.

<sup>\*\*</sup>Course may be taken in conjunction with other technical courses, but must be taken in the first semester of technical course work.

<sup>#</sup>Applicants may select a dental assisting course option in which to gain specialized skills: Dental Office Management, Community Dentistry or Clinical Dental Assisting. Required course in the Associate of Science Degree in Dental Assisting.



# CAREER ENHANCEMENT CERTIFICATE DENTAL PRACTICE COORDINATOR

2021 Catalog

Effective Summer 2020

3404 Pre-3407

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Allied Dental Health Professions Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DAS128	Introduction to Dental Terminology and Basic Anatomy	2		
DAS129	Fundamentals of the Dental Profession	3	Co-Requisite DAS130	
DAS130	Dental Practice Coordination I	3	Co-Requisite DAS129	
DAS131	Dental Insurance	2	Pre-Requisite DAS130	
DAS132	Dental Practice Coordination II	3	Pre-Requisite DAS130	
AOT121	Keyboarding/Formatting	3	Co-Requisite DAS130	
	TOTAL CREDITS	16		

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semeste	<u>er</u>	Credit Hours	Pre- and Co-Requisites
DAS128	Introduction to Dental Terminology and Basic Anatomy	2	
DAS129	Fundamentals of the Dental Profession	3	Co-Requisite DAS130
DAS130	Dental Practice Coordination I	<u>3</u>	Co-Requisite DAS129
		8	
Second Seme	<u>ester</u>		
DAS131	Dental Insurance	2	Pre-Requisite DAS130
DAS132	Dental Practice Coordination II	3	Pre-Requisite DAS130
AOT121	Key Boarding/Formatting	<u>3</u>	Co-Requisite DAS130
		8	
	TOTAL CREDITS	16	

Minimum grade of "C" in all technical courses is required.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.



### CAREER ENHANCEMENT CERTIFICATE EXPANDED FUNCTIONS DENTAL AUXILIARY

2021 Catalog

Effective Summer 2020

3423

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357.09(K):15-13-06.

Health and Public Services Division

Allied Dental Health Professions Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DAS125	Dental Assisting Specialty#	3		
DAS225	Dental Morphology for the Expanded Functions Dental Auxiliary	2	Co-DAS226 and Co-DAS227	
DAS226	Expanded Dental Assisting I	2	Co-DAS225 and Co-DAS227	
DAS227	Expanded Dental Assisting II	4	Co-DAS225 and Co-DAS226	
DAS228	Directed Clinical Practice	5	DAS225 and DAS226 and DAS227	
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
DAS125	Dental Assisting Specialty#	3	
DAS225	Dental Morphology for the Expanded Functions Dental Auxiliary	2	Co-DAS226 and Co-DAS227
DAS226	Expanded Dental Assisting I	2	Co-DAS225 and Co-DAS227
DAS227	Expanded Dental Assisting II	<u>4</u>	Co-DAS225 <b>and</b> Co-DAS226
		11	
Second Semester			
DAS228	Directed Clinical Practice	<u>5</u>	DAS225 and DAS226 and DAS227
	TOTAL CREDITS	16	

#Applicants must select Option A: Clinical Practice.



# CAREER ENHANCEMENT CERTIFICATE SPORTS MASSAGE SPECIALIST

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

3455

MAP

Health and Public Services Division

Therapy & Wellness Programs Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy and Physiology I (lab)^ ++	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)++	4	BIO121 or BIO123	
MAS121	Massage Therapy I+	6		
MAS231	Sports Massage+	2	MAS121	
NTR121	Nutrition for Health^++	3	IDS102 or Proficiency	
EXS110	Anatomy of Exercise++	3	Co-BIO122 or Co-BIO123 and Co-EXS110L	
EXS110L	Anatomy of Exercise Lab++	1	Co-EXS110	
	TOTAL CREDIT HOURS	23		

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
BIO121	Anatomy and Physiology I (lab)^▲++	4	BIO101 or Proficiency
MAS121	Massage Therapy I+	<u>6</u>	
		10	
Second Semester			
BIO122	Anatomy and Physiology II (lab)++	4	BIO121 or BIO123
NTR121	Nutrition for Health^++	<u>3</u>	IDS102 or Proficiency
		7	
Third Semester			
MAS231	Sports Massage+	2	MAS121
EXS110	Anatomy of Exercise++	3	Co-BIO122 or Co-BIO123 and
	•		Co-EXS110L
EXS110L	Anatomy of Exercise Lab++	<u>1</u>	Co-EXS110
		6	
	TOTAL CREDITS	23	

<sup>^</sup>Based on SSC placement scores.

Application criteria requires a "C" or better in BIO101 or HS BIO to apply to the Massage program.

Minimum grade of "C" in all other courses in the program curriculum is required.

Minimum grade of "B" in all MAS technical courses in the program curriculum is required.

<sup>+</sup>Minimum grade of "B" required.

<sup>++</sup>Minimum grade of "C" required.

<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.



#### CAREER ENHANCEMENT CERTIFICATE

### MEDICAL INSTRUMENT STERILIZATION TECHNICIAN CERTIFICATE

**2021 Catalog**Effective Summer 2020

3504

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Respiratory, Laboratory, and Surgical Technology Dept.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MIS124	Medical Instrument Sterilization I▲-	4	BIO101 Advisor approval required	
MIS126	Medical Instrument Sterilization II ▲+	4	MIS124	
MIS123	Introduction to Surgical Terminology/ Microbiology ▲+	3	MIS124	
MIS222	Medical Instrument Sterilization III ▲*	2	MIS123 and MIS126	
BIO101	Introduction to Anatomy & Physiology^	3	IDS102 or Proficiency	
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
BIO101	Introduction to Anatomy & Physiology^	3	IDS102 or Proficiency
MIS124	Medical Instrument Sterilization I▲-	<u>4</u>	BIO101
			Advisor approval required
		7	
Second Semester			
MIS126	Medical Instrument Sterilization II ▲+	4	MIS124
MIS123	Introduction to Surgical Terminology/Microbiology ▲+	<u>3</u>	MIS124
		7	
Third Semester			
MIS222	Medical Instrument Sterilization III ▲*	<u>2</u>	MIS123 and MIS126
		2	
	TOTAL CREDITS	16	

<sup>^</sup>Based upon SSC placement score.

- ▲+ Spring only courses. Please see your academic advisor for availability.
- ▲ Fall only courses. Please see your academic advisor for availability.
- ▲\* Summer only courses. Please see your academic advisor for availability.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required. Students must be currently working in the field or have one year previous working experience in central service processing to apply.



# CAREER ENHANCEMENT CERTIFICATE DIETARY MANAGER

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Therapy & Wellness Programs Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 <b>or</b> Proficiency	
NTR121	Nutrition for Health	3	IDS102 or Proficiency	
NTR122	Introduction to MNT	1	NTR121	
NTR130	Food Operations	3		
DTR228	Dietary Systems	3		
DMA135	Food Operations Directed Practice	1	Co-NTR130 <b>or</b> Permission	
DMA145	MNT Directed Practice	1	Permission	
DMA155	Dietary Systems Directed Practice	1	Permission	
	TOTAL CREDIT HOURS	16		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester	, , , , , , , , , , , , , , , , , , , ,	Credit	Pre- and Co-requisites
		<u>Hours</u>	
DMA135	Food Operations Directed Practice	1	Co-NTR130 or Permission
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
NTR121	Nutrition for Health	3	IDS102 or Proficiency
NTR130	Food Operations	<u>3</u>	
		10	
Second Semeste	<u>r</u>		
DMA145	MNT Directed Practice	1	Permission
DMA155	Dietary Systems Directed Practice	1	Permission
DTR228	Dietary Systems	3	
NTR122	Introduction to MNT	<u>1</u>	NTR121
		6	
	TOTAL CREDITS	16	

<sup>^</sup>Based upon SSC placement score.

This coursework is in compliance with the requirements of the Association of Nutrition and Food Service Professionals.

### HUMAN SERVICES, SOCIAL SERVICES AND PUBLIC SAFETY



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



# ASSOCIATE OF APPLIED SCIENCE HUMAN AND SOCIAL SERVICES

2021 Catalog

Effective Summer 2020

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MAP

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Human Services and Justice Studies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
GER121	Introduction to Gerontology	3		
HJS250	Human Services and Justice Studies Practicum and Seminar	3	CJS221 or GLS123 or SWK130 or CDC222	
SWK121	Introduction to Social Welfare++^	3	IDS102 or Proficiency	
SWK124	Methods in Practice I++	3	SWK121	
SWK125	Substance Abuse^	3	IDS102 or Proficiency	
SWK126	Human Behavior in the Social Environment++^	3	IDS102 or Proficiency	
SWK127	Group Processes++	3		
SWK130	Methods in Practice II++	3	SWK124	
SWK224	Poverty in the U.S.++	3	SWK121 and ENG124	
SWK225	Victimization and Crisis Intervention	3	ENG124	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO127	Human Biology	4		
BUS122	Basic Economics ^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3		
or	or	or	Check for prerequisites	
MTH124	Statistics $^{\Lambda}\Omega$	3		
PSC121	Political Science	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency	
SOC225	Cultural Diversity++	3		
	Total	32		
	TOTAL CREDIT HOURS	62		

<sup>^</sup>Based on SSC placement scores.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

Effective Summer 2020

#### **HUMAN AND SOCIAL SERVICES**

1000

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester.
SWK121	Introduction to Social Welfare++^	3	IDS102 or Proficiency
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
~~~.	~		Proficiency
SOC121	Sociology^	3	IDS102 or Proficiency
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		16	
Second Semester		_	
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	Check for prerequisites
MTH124	Statistics $^{\Lambda}\Omega$	3	
SWK124	Methods in Practice I++	3	SWK121
SWK224	Poverty in the U.S.++	3	SWK121 and ENG124
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
BIO127	Human Biology	<u>4</u>	
		16	
Third Semester			
SWK130	Methods in Practice II++	3	SWK124
SWK126	Human Behavior in the Social Environment++^	3	IDS102 or Proficiency
SOC225	Cultural Diversity++	3	
SWK125	Substance Abuse^	3	IDS102 or Proficiency
SWK225	Victimization and Crisis Intervention	3 <u>3</u> <b>15</b>	ENG124
		15	
Fourth Semester			
PSC121	Political Science	3	
BUS122	Basic Economics^	3	IDS102 or Proficiency
HJS250	Human Services and Justice Studies Practicum	3	CJS221 or GLS123 or
	and Seminar		SWK130 or CDC222
GER121	Introduction to Gerontology	3	
SWK127	Group Processes++	3 <u>3</u>	
		15	
	TOTAL CREDITS	62	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.



#### ASSOCIATE OF APPLIED SCIENCE

# HUMAN AND SOCIAL SERVICES GERONTOLOGY MAJOR

2021 Catalog

Effective Summer 2020

1003

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Human Services and Justice Studies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
GER121	Introduction to Gerontology	3		
GER122	Psychosocial Aspects of Aging++	3		
HJS250	Human Services and Justice Studies Practicum and Seminar	3	CJS221 or GLS123 or SWK130 or CDC222	
SWK121	Introduction to Social Welfare++^	3	IDS102 or Proficiency	
SWK124	Methods in Practice I++	3	SWK121	
SWK125	Substance Abuse^	3	IDS102 or Proficiency	
SWK126	Human Behavior in the Social Environment++^	3	IDS102 or Proficiency	
SWK130	Methods in Practice II++	3	SWK124	
SWK224	Poverty in the U.S.++	3	SWK121 and ENG124	
SWK230	Social Services for the Elderly++	3	ENG124	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO127	Human Biology	4		
BUS122	Basic Economics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition ^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3		
or	or	or	Check for prerequisites	
MTH124	Statistics <sup>Δ</sup> Ω	3		
PSC121	Political Science	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity++	3		
	Total	32		
	TOTAL CREDIT HOURS	62		

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

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## HUMAN AND SOCIAL SERVICES - GERONTOLOGY MAJOR

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#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
COM121	Effective Speaking	3	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
GER121	Introduction to Gerontology	3	•
SOC121	Sociology^	3	IDS102 or Proficiency
SWK121	Introduction to Social Welfare++^	<u>3</u>	IDS102 or Proficiency
		16	
Second Semester			
BIO127	Human Biology	4	
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	Check for prerequisites
MTH124	Statistics <sup>Δ</sup> Ω	3	
SWK124	Methods in Practice I++	3	SWK121
SWK224	Poverty in the U.S.++	<u>3</u>	SWK121 and ENG124
		16	
Third Semester			
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
SOC225	Cultural Diversity++	3	•
SWK125	Substance Abuse^	3	IDS102 or Proficiency
SWK126	Human Behavior in the Social Environment++^	3	IDS102 or Proficiency
SWK130	Methods in Practice II++	<u>3</u>	SWK124
		15	
Fourth Semester			
BUS122	Basic Economics^	3	IDS102 or Proficiency
GER122	Psychosocial Aspects of Aging++	3	
HJS250	Human Services and Justice Studies Practicum and	3	CJS221 or GLS123 or
	Seminar		SWK130 or CDC222
PSC121	Political Science	3	
SWK230	Social Services for the Elderly++	<u>3</u>	ENG124
		15	
	TOTAL CREDITS	62	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.



# ASSOCIATE OF APPLIED SCIENCE HUMAN AND SOCIAL SERVICES CHEMICAL DEPENDENCY MAJOR

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

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MY ACADEMIC PLAN

Health and Public Services Division

Human Services and Justice Studies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CDC121	Chemical Dependency: Assessment and Treatment Planning++	3	SWK121 and SWK125	
CDC122	Fundamentals of Chemical Dependency Practice I++	3	SWK125	
CDC221	Chemical Dependency and the Family++	3	SWK125	
CDC222	Fundamentals of Chemical Dependency Practice II++	3	CDC122	
CDC223	Chemical Dependency and Prevention++	1	SWK125	
CDC224	Chemical Dependency and Ethics++	1	SWK125	
HJS250	Human Services and Justice Studies Practicum and Seminar	3	CJS221 or GLS123 or SWK130 or CDC222	
SWK121	Introduction to Social Welfare++^	3	IDS102 or Proficiency	
SWK125	Substance Abuse++^	3	IDS102 or Proficiency	
SWK126	Human Behavior in the Social Environment++^	3	IDS102 or Proficiency	
SWK224	Poverty in the U.S.++	3	SWK121 and ENG124	
SWK225	Victimization and Crisis Intervention	3	ENG124	
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take finat somesten	
		1	Take first semester	
BIO127	Human Biology	4	Take jirsi semesier	
BIO127 BUS122			IDS102 or Proficiency	
	Human Biology	4		
BUS122	Human Biology Basic Economics^	4 3		
BUS122 COM121	Human Biology  Basic Economics^  Effective Speaking  College Composition ^  Computer Applications for Professionals^	4 3 3	IDS102 or Proficiency  Co-ENG024 or Co-	
BUS122 COM121 ENG124	Human Biology Basic Economics^ Effective Speaking College Composition ^	4 3 3 3	IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency	
BUS122 COM121 ENG124 ITD122 MTH108 or	Human Biology  Basic Economics^  Effective Speaking  College Composition ^  Computer Applications for Professionals^  Explorations in Modern Mathematics^  or	4 3 3 3 3 3 or	IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency	
BUS122 COM121 ENG124 ITD122 MTH108 or MTH124	Human Biology  Basic Economics^  Effective Speaking  College Composition ^  Computer Applications for Professionals^  Explorations in Modern Mathematics^  or  Statistics^Ω	4 3 3 3 3 0r 3	IDS102 or Proficiency  Co-ENG024 or Co- ENG011 or Proficiency  ITD100 or Proficiency	
BUS122 COM121 ENG124 ITD122 MTH108 or MTH124 PSC121	Human Biology  Basic Economics^  Effective Speaking  College Composition ^  Computer Applications for Professionals^  Explorations in Modern Mathematics^  or  Statistics^Ω  Political Science	4 3 3 3 3 or 3 3	IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency ITD100 or Proficiency  Check for prerequisites	
BUS122 COM121 ENG124 ITD122 MTH108 or MTH124 PSC121 PSY121	Human Biology  Basic Economics^  Effective Speaking  College Composition ^  Computer Applications for Professionals^  Explorations in Modern Mathematics^  or  Statistics^Ω  Political Science  General Psychology^	4 3 3 3 3 or 3 3 3	IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency  Check for prerequisites  IDS102 or Proficiency	
BUS122 COM121 ENG124 ITD122 MTH108 or MTH124 PSC121 PSY121 SOC121	Human Biology  Basic Economics^  Effective Speaking  College Composition ^  Computer Applications for Professionals^  Explorations in Modern Mathematics^  or  Statistics^Ω  Political Science  General Psychology^  Sociology^	4 3 3 3 3 or 3 3	IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency ITD100 or Proficiency  Check for prerequisites	
BUS122 COM121 ENG124 ITD122 MTH108 or MTH124 PSC121 PSY121	Human Biology  Basic Economics^  Effective Speaking  College Composition ^  Computer Applications for Professionals^  Explorations in Modern Mathematics^  or  Statistics^Ω  Political Science  General Psychology^	4 3 3 3 3 or 3 3 3	IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency  Check for prerequisites  IDS102 or Proficiency	
BUS122 COM121 ENG124 ITD122 MTH108 or MTH124 PSC121 PSY121 SOC121	Human Biology  Basic Economics^  Effective Speaking  College Composition ^  Computer Applications for Professionals^  Explorations in Modern Mathematics^  or  Statistics^Ω  Political Science  General Psychology^  Sociology^	4 3 3 3 3 0r 3 3 3	IDS102 or Proficiency  Co-ENG024 or Co-ENG011 or Proficiency  ITD100 or Proficiency  Check for prerequisites  IDS102 or Proficiency	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

Effective Summer 2020

# HUMAN AND SOCIAL SERVICES - CHEMICAL DEPENDENCY MAJOR

1004

#### **FULL-TIME STUDENT ADVISING NOTES**

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		<u>Credit</u>	Pre- and Co-requisites
		<u>Hours</u>	
SSC101	Student Success Seminar^^	1	Take first semester
COM121	Effective Speaking	3	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
SWK121	Introduction to Social Welfare++^	3	IDS102 or Proficiency
SWK125	Substance Abuse++^	<u>3</u>	IDS102 or Proficiency
		16	
Second Semester			
CDC121	Chemical Dependency: Assessment and Treatment Planning++	3	SWK121 and SWK125
CDC122	Fundamentals of Chemical Dependency Practice I++	3	SWK125
CDC223	Chemical Dependency and Prevention++	1	SWK125
CDC224	Chemical Dependency and Ethics++	1	SWK125
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	Check for prerequisites
MTH124	Statistics $^{\Omega}$	3	
PSC121	Political Science	3	
SWK224	Poverty in the U.S.++	<u>3</u>	SWK121 and ENG124
	•	<del>-</del> 7	
Third Semester			
CDC221	Chemical Dependency and the Family++	3	SWK125
CDC222	Fundamentals of Chemical Dependency Practice II++	3	CDC122
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
SWK126	Human Behavior in the Social Environment++^	3	IDS102 or Proficiency
SWK225	Victimization and Crisis Intervention	<u>3</u>	ENG124
		18	
Fourth Semester			
BUS122	Basic Economics^	3	IDS102 or Proficiency
HJS250	Human Services and Justice Studies Practicum and	3	CJS221 or GLS123 or
	Seminar		SWK130 <b>or</b> CDC222
SOC225	Cultural Diversity++	3	
BIO127	Human Biology		
	67	$\frac{4}{13}$	
	TOTAL CREDITS	64	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.



#### ASSOCIATE OF APPLIED SCIENCE

### **HUMAN AND SOCIAL SERVICES -COMMUNITY CORRECTIONS**

2021 Catalog Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Human Services and Justice Studies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CJS121	Introduction to Criminal Justice++	3		
CJS129	Corrections++	3	CJS121	
CJS221	Criminology	3	CJS121	
CJS223	Criminal Procedure	3	CJS121	
HJS250	Human Services and Justice Studies Practicum and Seminar	3	CJS221 or GLS123 or SWK130 or CDC222	
SWK121	Introduction to Social Welfare++^	3	IDS102 or Proficiency	
SWK124	Methods in Practice I++	3	SWK121	
SWK130	Methods in Practice II++	3	SWK124	
SWK125	Substance Abuse^	3	IDS102 or Proficiency	
SWK126	Human Behavior in the Social Environment++^	3	IDS102 or Proficiency	
SWK225	Victimization and Crisis Intervention	3	ENG124	
	Total	33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
BIO127	Human Biology	4		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH108	Explorations in Modern Mathematics^	3		
or MTH124	or Statistics^Ω	<b>or</b> 3	Check for prerequisites	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC222	Juvenile Delinquency	3	SOC121	
or PSY221	or Abnormal Psychology	<b>or</b> 3	<b>or</b> PSY121	
SOC225	Cultural Diversity++	3	F31121	
500225	Total	32		
	TOTAL CREDIT HOURS	65		

<sup>^</sup>Based upon SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

#### 2021 Catalog

Effective Summer 2020

# HUMAN AND SOCIAL SERVICES - COMMUNITY CORRECTIONS

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#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CJS121	Introduction to Criminal Justice++	3	
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
SWK121	Introduction to Social Welfare++^	3	IDS102 or Proficiency
SWK125	Substance Abuse^	<u>3</u>	IDS102 or Proficiency
		16	
Second Semester			
CJS129	Corrections++	3	CJS121
CJS221	Criminology	3	CJS121
ENG221	Technical Report Writing	3	ENG124
MTH108	Explorations in Modern Mathematics^	3	
or	or	or	Check for prerequisites
MTH124	Statistics $^{}\Omega$	3	V 1 1
SWK124	Methods in Practice I++	3	SWK121
SWK126	Human Behavior and the Social Environment++^	<u>3</u>	IDS102 or Proficiency
		18	Ž
Third Semester			
CJS223	Criminal Procedure	3	CJS121
COM121	Effective Speaking	3	
SOC222	Juvenile Delinquency	3	SOC121
or	or	or	or
PSY221	Abnormal Psychology	3	PSY121
SWK130	Methods in Practice II++	3	SWK124
SWK225	Victimization & Crisis Intervention	<u>3</u>	ENG124
		15	
Fourth Semester			
BIO127	Human Biology	4	
HJS250	Human Services and Justice Studies Practicum and	3	CJS221 or GLS123 or SWK130
	Seminar		or CDC222
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
SOC225	Cultural Diversity++	<u>3</u>	
		16	
	TOTAL CREDITS	65	

<sup>^</sup>Based upon SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.



### MAP

### ASSOCIATE OF APPLIED SCIENCE POLICE SCIENCE

only when students change their major or request the change in writing. Refer to Policy No. 3357: 15-13-06.

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes

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Health and Public Services Division

Human Services and Justice Studies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CJS140	Law Enforcement Academy I^++	12	IDS102 or Proficiency	
CJS240	Law Enforcement Academy II++	12	CJS140	
CJS221	Criminology	3	CJS121	
HJS250	Human Services and Justice Studies Practicum and Seminar	3	CJS221 or GLS123 or SWK130 or CDC222	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG231	College Composition II	3	ENG124	
COM121	Effective Speaking	3		
PHL122	Ethics	3		
CHM105	Introduction to Forensic Science (lab)	3		
SOC225	Cultural Diversity	3		
CJS121	Introduction to Criminal Justice	3		
PSY121	General Psychology <sup>1</sup> (recommended)	3	IDS102 or Proficiency	
MTH108	Explorations in Modern Mathematics <sup>2</sup> (recommended)	3	MTH022 or MTH023 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
	Total	31		
	TOTAL CREDIT HOURS	61		

<sup>^</sup>Based on SSC placement scores

Note: Stark State College Police Science program is for individuals interested in pursuing a career in law enforcement. Background checks are completed and submitted to BCI and FBI prior to acceptance into the Ohio Peace Officer Training Academy. Individuals who have been convicted of a felony or domestic violence will not be eligible for the Ohio Peace Officer Training Academy or the Police Science program. All OPOTA instructors are certified by the Ohio Peace Officer Training Commission. Students who successfully complete the Ohio Peace Officer Training Academy and pass all practical exercises are eligible to take the Ohio Basic Peace Officer Certification Examination. Please send an email to LEAinfo@starkstate.edu for more information.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

<sup>&</sup>lt;sup>1</sup> Or select from one of the following choices: PSC121, PSY221, SOC121, SOC123, SOC221, SOC222

<sup>&</sup>lt;sup>2</sup> Or select from one of the following choices: MTH124

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time students who plan to finish in one year.

First Semester		Credit Hours	Pre-or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or
			Proficiency
CJS121	Introduction to Criminal Justice	3	
CHM105	Introduction to Forensic Science (lab)	3	
PSY121	General Psychology (recommended)	3 13	IDS102 or Proficiency
		13	
Second Semester			
CJS140	Law Enforcement Academy I^++	12	IDS102 or Proficiency
ENG231	College Composition II	<u>3</u>	ENG124
		15	
Third Semester			
CJS240	Law Enforcement Academy II++	12	CJS140
CJS221	Criminology	3 15	CJS121
		15	
Fourth Semester			
COM121	Effective Speaking	3 3	
ITD122	Computer Applications for	3	ITD100 or Proficiency
	Professionals ^		
PHL122	Ethics	3	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023
	<sup>2</sup> (recommended)		or Proficiency
SOC225	Cultural Diversity	3	
HJS250	Human Services and Justice Studies	<u>3</u>	CJS221 or GLS123 or
	Practicum and Seminar		SWK130 or CDC222
		18	
	TOTAL CREDITS	61	

<sup>^</sup>Based on SSC placement scores

Note: Stark State College Police Science program is for individuals interested in pursuing a career in law enforcement. Background checks are completed and submitted to BCI and FBI prior to acceptance into the Ohio Peace Officer Training Academy. Individuals who have been convicted of a felony or domestic violence will not be eligible for the Ohio Peace Officer Training Academy or the Police Science program. All OPOTA instructors are certified by the Ohio Peace Officer Training Commission. Students who successfully complete the Ohio Peace Officer Training Academy and pass all practical exercises are eligible to take the Ohio Basic Peace Officer Certification Examination. Please send an email to LEAinfo@starkstate.edu for more information.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

<sup>&</sup>lt;sup>1</sup> Or select from one of the following choices: PSC121, PSY221, SOC121, SOC123, SOC221, SOC222

<sup>&</sup>lt;sup>2</sup> Or select from one of the following choices: MTH124



# ONE-YEAR CERTIFICATE POLICE SCIENCE

2021 Catalog

Effective Summer 2020

1302

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Human Services and Justice Studies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CJS140	Law Enforcement Academy I^++	12	IDS102 or Proficiency	
CJS240	Law Enforcement Academy II++	12	CJS140	
CJS121	Introduction to Criminal Justice	3		
CJS221	Criminology	3	CJS121	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
	Total	10		
	TOTAL CREDIT HOURS	40		

<sup>^</sup>Based on SSC placement score.

**Note:** Stark State College Police Science program is for individuals interested in pursuing a career in law enforcement. Background checks are completed and submitted to BCI and FBI prior to acceptance into the Ohio Peace Officer Training Academy. Individuals who have been convicted of a felony or domestic violence will not be eligible for the Ohio Peace Officer Training Academy or the Police Science program. All OPOTA instructors are certified by the Ohio Peace Office Training Commission. Students who successfully complete the Ohio Peace Officer Training Academy and pass all practical exercises are eligible to take the Ohio Basic Peace Officer Certification Examination.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.

Effective Summer 2020

### ONE-YEAR CERTIFICATE POLICE SCIENCE

1302

#### FULL-TIME STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for students seeking a one-year certificate.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CJS140	Law Enforcement Academy I^++	12	IDS102 or Proficiency
CJS121	Introduction to Criminal Justice	3	
COM121	Effective Speaking	<u>3</u>	
		19	
Second Semester			
CJS240	Law Enforcement Academy II++	12	CJS140
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
PSY121	General Psychology^	3	IDS102 or Proficiency
CJS221	Criminology	<u>3</u>	CJS121
		21	
	TOTAL CREDITS	40	

<sup>^</sup>Based on SSC placement score.

**Note:** Stark State College Police Science program is for individuals interested in pursuing a career in law enforcement. Background checks are completed and submitted to BCI and FBI prior to acceptance into the Ohio Peace Officer Training Academy. Individuals who have been convicted of a felony or domestic violence will not be eligible for the Ohio Peace Officer Training Academy or the Police Science program. All OPOTA instructors are certified by the Ohio Peace Office Training Commission. Students who successfully complete the Ohio Peace Officer Training Academy and pass all practical exercises are eligible to take the Ohio Basic Peace Officer Certification Examination.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>++</sup>Minimum grade of "C" required.



### ASSOCIATE OF ARTS CRIMINAL JUSTICE

2021 Catalog

Effective Summer 2020

1301

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357: 15-13-06.

Health and Public Services Division

Human Services and Justice Studies Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXP				
SSC101	Student Success Seminar^^	1	Take first semester	
COMPUTER APP			IIID 100 D C :	
ITD122	Computer Applications for Professionals^ AL COMMUNICATION: 9 credit hours minimum	3	ITD100 or Proficiency	
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG231	College Composition II	3	ENG124	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
COM123	Small Group Communication	3	IDS102 or Proficiency	
	VIORAL SCIENCES: 12 credit hours minimum		, ,	
SOC225	Cultural Diversity (required)	3		
PSC121	Political Science	3		
PSC221	State and Local Government	3	PSC121	
PSC222	Public Policy	3	PSC121	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PSY220	Social Psychology	3	PSY121	
PSY221	Abnormal Psychology	3	PSY121	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC123	Dynamics of the Family	3		
SOC221	Social Problems	3	SOC121	
SOC222	Juvenile Delinquency	3	SOC121	
CRIMINAL JUST	ICE: 18 credit hours required	L	'	
CJS121	Introduction to Criminal Justice	3		
CJS124	Policing	3	CJS121	
CJS129	Corrections	3	CJS121	
CJS221	Criminology	3	CJS121	
CJS222	Criminal Law in the United States	3	CJS121	
CJS223	Criminal Procedure	3	CJS121	
ARTS & HUMAN	ITIES: 6 credit hours minimum			
PHL122	Ethics (required)	3		
ENG233	British Literature: Medieval to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	

See last page for footnotes

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### **CRIMINAL JUSTICE**

1301

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
Natural Sciences: 6 see	EMATICS  nester credit hours minimum (1 lab course required)			
BIO121	Anatomy and Physiology I (lab)^ \	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO126	Science, Energy, & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO128	Climate Studies (lab)	3		
BIO129	Meteorology (lab)	3		
BIO130	Ocean Studies (lab)	3		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4		
CHM100	Exploring Science and Technology (lab)	4		
CHM101	Introduction to Chemistry^ ▲	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., and Biol. Chemistry I (lab)	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM122	Gen., Org., and Biol. Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
CHM205	Forensic Chemistry (lab)	4	CHM105 or CHM121 or CHM141	
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
PHY105	Astronomy (lab)	4		
Mathematics: 3 semeste	er credit hours required			
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
MTH125	College Algebra^	4	MTH023 or Pre-Co-MTH025 or Proficiency	
ELECTIVE: 0-3 credit	t hours -Students may select one additional course from abo	ove or choose one ele		
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
PSC122	Introduction to Law and the Legal System^	3	IDS102 or Proficiency	
PSY124	Industrial/Organizational Psychology	3		
SPN100 SPN200	Elementary Spanish I  Elementary Spanish II ++	4	SPN100	
SSC201	Study Away: Experiential Learning	1	Successful completion of 15 or more college credits, age 18 or older, permission of instructor	
	TOTAL CREDIT HO	URS 60-63		

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make appointments to meet with their advisors before registering for classes each semester. The student should determine his or her course preferences for the semester prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish the degree in two years.

#### Selection of Elective Courses

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester		Credit Hours	Pre-or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
PHL122	Ethics	3	
CJS121	Introduction to Criminal Justice	3	
Social & Behavio	ral Sciences Elective <sup>4</sup>	<u>3</u>	Check for prerequisites
		16	
Second Semester			
Mathematics Elec	ctive <sup>6</sup>	3-4	Check for prerequisites
Natural Sciences	Elective $\wedge^2$	3-5	Check for prerequisites
Social & Behavio	ral Sciences Elective <sup>4</sup>	3	Check for prerequisites
CJS124	Policing	3	CJS121
CJS129	Corrections	<u>3</u>	CJS121
		15-18	
Third Semester			
Natural Sciences	Elective $\wedge^2$	3-5	Check for prerequisites
Written & Oral C	Communication Elective <sup>3</sup>	3	Check for prerequisites
SOC225	Cultural Diversity	3	
CJS221	Criminology	3	CJS121
CJS222	Criminal Law in the United States	<u>3</u>	CJS121
		15-17	
Fourth Semester			
Arts & Humanitie		3	Check for prerequisites
	Communication Elective <sup>3</sup>	3	Check for prerequisites
Social & Behavio	ral Sciences Elective <sup>4</sup>	3	Check for prerequisites
Elective 5 (If need		0-3	Check for prerequisites
CJS223	Criminal Procedure	<u>3</u>	CJS121
		12-15	
	TOTAL CREDITS	60-63	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and/or biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> Arts and Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222

<sup>&</sup>lt;sup>2</sup> Natural Sciences Electives: BIO121, BIO122, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, CHM100, CHM101, CHM105, CHM121, CHM122, CHM141, CHM142, CHM205, PHY101, PHY105, PHY121, PHY122

<sup>&</sup>lt;sup>3</sup> Written & Oral Communication Electives: COM121, COM122, COM123, ENG221, ENG230, ENG231,

<sup>&</sup>lt;sup>4</sup> Social & Behavioral Sciences Electives: PSC121, PSC221, PSC222, PSY121, PSY220, PSY221, SOC121, SOC123, SOC221, SOC222

<sup>&</sup>lt;sup>5</sup> <u>Elective (If needed):</u> BUS221, BUS222, PSC122, PSY124, SPN100, SPN200, SSC201

<sup>&</sup>lt;sup>6</sup> Mathematics Electives: MTH108, MTH124, MTH125



### ASSOCIATE OF APPLIED SCIENCE **Government and Legal Studies**

2021 Catalog

Effective Summer 2020

1310

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Human Services and justice Studies Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT226	Spreadsheet Microsoft Excel^	3	ITD100 or Proficiency	
AOT235	Legal Research and Writing	3		
COM123	Small Group Communication^	3	IDS102 or Proficiency	
ENG230	Business Communication	3	ENG124	
PSC123	Government and Legal Ethics^	3	IDS102 or Proficiency	
PSC122	Introduction to Law and the Legal System^	3	IDS102 or Proficiency	
HJS250	Human Services and Justice Studies Practicum and Seminar	3	CJS221 or GLS123 or SWK130 or CDC222	
PSC221	State and Local Government	3	PSC121	
PSC222	Public Policy	3	PSC121	
PSY124	Industrial and Organizational Psychology	3		
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AOT130	Editing, Proofreading, and Language Skills	3		
AOT132	Records Management^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity	3		
BIO126	Science, Energy, & the Environment (lab)	4		
MTH124	Statistics^	3		
or MTH108	or Explorations in Modern Mathematics^	<b>or</b> 3	Check for prerequisites	
	Total	32		
	TOTAL CREDIT HOURS	62		

<sup>^</sup>Based upon SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

**1310** 

Effective Summer 2020

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make appointments to meet with their advisors before registering for classes each semester. The student should determine his or her course preferences for the semester prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester.
AOT130	Editing, Proofreading, and Language Skills	3	
PSC122	Introduction to Law and the Legal System <sup>^</sup>	3	IDS102 or Proficiency
PSC121	Political Science	3	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
SOC225	Cultural Diversity	<u>3</u>	•
		16	
Second Semester			
AOT132	Records Management <sup>^</sup>	3	IDS102 or Proficiency
COM121	Effective Speaking	3	
PSC123	Government and Legal Ethics^	3	IDS102 or Proficiency
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
PSY121	General Psychology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		15	
Third Semester			
AOT226	Spreadsheet Microsoft Excel <sup>^</sup>	3	ITD100 or Proficiency
ENG230	Business Communication	3	ENG124
PSC222	Public Policy	3	PSC121
PSC221	State and Local Government	3	PSC121
MTH124	Statistics <sup>^</sup>	3	
or	or	or	Check for prerequisites
MTH108	Explorations in Modern Mathematics^	3 <b>15</b>	
Fourth Semester		10	
AOT235	Legal Research and Writing	3	
BIO126	Science, Energy, and the Environment (lab)	4	
COM123	Small Group Communication <sup>^</sup>	3	IDS102 or Proficiency
HJS250	Human Services and Justice Studies Practicum and	3	CJS221 or GLS123 or SWK130
	Seminar	_	or CDC222
PSY124	Industrial and Organizational Psychology	<u>3</u>	
		16	
	TOTAL CREDITS	62	

<sup>^</sup>Based upon SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.



### ASSOCIATE OF APPLIED SCIENCE **EMERGENCY MEDICAL SERVICES**

2021 Catalog

Effective Summer 2020

3551

Pre-3553

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

**Emergency Services Department** 

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EMS122	Paramedic I+▲-	9	BIO101 and EMS121 and Co-EMS124	
EMS124	Paramedic I Clinical+▲-	1	BIO101 and EMS121 and Co-EMS122	
EMS221	Paramedic II+▲+	9	EMS122 and EMS124 and Co-EMS223	
EMS223	Paramedic II Clinical+▲+	2	EMS122 and EMS124 and Co-EMS221	
EMS222	Paramedic III+▲*	3	EMS221 and EMS223 and Co-EMS226	
EMS226	Paramedic III Clinical+ ▲ *	1	EMS221 and EMS223 and Co-EMS222	
EMS224	Paramedic IV+▲-	4	EMS222 and EMS226 and Co-EMS225	
EMS225	Paramedic IV Clinical+▲-	1	EMS222 and EMS226 and Co-EMS224	
FST224	Legal Aspects of Fire Service	2		
	Total	32		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
EMS121	Emergency Medical Technician^+#	7	IDS102 or Proficiency	
BIO101	Introduction to Anatomy and Physiology^+	3	IDS102 or Proficiency	
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125	College Algebra^	4	MTH023 <b>or</b> Pre-Co-MTH025 <b>or</b> Proficiency	
PHL122	Ethics	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
	Total	30		
	TOTAL CREDIT HOURS	62		

Effective Summer 2020

#### **EMERGENCY MEDICAL SERVICES**

3551

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides a scheduling option for full-time associate degree students who plan to finish in two years.

<u>Summer</u>		Credit	Pre and Co-requisites
SSC101	Student Success Seminar^^	<u>Hours</u> 1	Take first semester
EMS121	Emergency Medical Technician^+#	7	IDS102 <b>or</b> Proficiency
BIO101	Introduction to Anatomy and Physiology^+	<u>3</u>	IDS102 or Proficiency
		11	
First Semester			
EMS122	Paramedic I+ ▲ -	9	BIO101 and EMS121 and Co-EMS124
EMS124	Paramedic I Clinical+▲-	1	BIO101 and EMS121 and Co-EMS122
ENG124	College Composition ^	<u>3</u>	Co-ENG024 or Co-ENG011 or Proficiency
		13	
Second Semester			
EMS221	Paramedic II+ ▲+	9	EMS122 and EMS124 and Co-EMS223
EMS223	Paramedic II Clinical+ ▲+	2	EMS122 and EMS124 and Co-EMS221
MTH125	College Algebra^	<u>4</u>	MTH023 <b>or</b> Pre-Co-MTH025 <b>or</b> Proficiency
		15	
<u>Summer</u>			
EMS222	Paramedic III+ ▲ *	3	EMS221 and EMS223 and Co-EMS226
EMS226	Paramedic III Clinical+ <b>▲</b> *	1	EMS221 and EMS223 and Co-EMS222
TOTAL DEC.		4	
Third Semester	Paramedic IV+▲-	4	EMG222 - JEMG226 - J.C. EMG225
EMS224	- <del> </del>	4	EMS222 and EMS226 and Co-EMS225
EMS225	Paramedic IV Clinical+ A	1	EMS222 and EMS226 and Co-EMS224
FST224	Legal Aspects of Fire Service	2	
BIO125	Medical Terminology	<u>3</u>	
		10	
Fourth Semester		2	IIID 100 D C
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
PHL122	Ethics	<u>3</u>	
		9	
	Total Credits	62	

<sup>^</sup>Based on SSC placement score.

#EMS121 is a prerequisite for EMS122. A student can waive this course by showing proof of current State of Ohio EMT Certification. This certification is required for enrollment to the paramedic program.

- ▲+ Spring only courses. Please see your academic advisor for availability.
- ▲- Fall only courses. Please see your academic advisor for availability.
- ▲\* Summer only courses. Please see your academic advisor for availability.

This program requires an application (separate from the College).

Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>+</sup>Minimum grade of "B" required.

<sup>\*</sup>Students must contact the Fire Program Coordinator prior to registering.



### ASSOCIATE OF APPLIED SCIENCE **EMERGENCY FIRE SERVICES**

2021 Catalog

Effective Summer 2020

3554 Pre-3555

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

**Emergency Services Department** 

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EMS122	Paramedic I+▲-	9	BIO101 and EMS121 and Co-EMS124	
EMS124	Paramedic I Clinical+▲-	1	BIO101 and EMS121 and Co-EMS122	
EMS221	Paramedic II + ▲ +	9	EMS122 and EMS124 and Co-EMS223	
EMS223	Paramedic II Clinical+▲+	2	EMS122 and EMS124 and Co-EMS221	
EMS222	Paramedic III+▲*	3	EMS221 and EMS223 and Co-EMS226	
EMS226	Paramedic III Clinical+▲*	1	EMS221 and EMS223 and Co-EMS222	
EMS224	Paramedic IV+▲-	4	EMS222 and EMS226 and Co-EMS225	
EMS225	Paramedic IV Clinical+▲-	1	EMS222 and EMS226 and Co-EMS224	
FST228	Fire Fighter 1 & 2++*		IDS102 or Proficiency	
or FST129 and FST230  or FST128 and FST 229 and FST 230	Take the Firefighter sequence of courses to obtain Firefighter Level 2 certification (Firefighter 1 and Firefighter 2 Transition)++*  or  Take the Firefighter sequence of courses to obtain Firefighter Level 2 certification (Volunteer,	11	Check for prerequisites  Check for prerequisites	
	Firefighter 1Transition and Firefighter 2 Transition)++*  Total	41		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	Som, rear
EMS121	Emergency Medical Technician^+#	7	IDS102 or Proficiency	
BIO101	Introduction to Anatomy and Physiology^+	3	IDS102 or Proficiency	
COM122	Interpersonal Communication	3		
ENG124	College Composition^	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125	College Algebra^	4	MTH023 <b>or</b> Pre-Co-MTH025 <b>or</b> Proficiency	
PHL122	Ethics	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
	Total	30		
	TOTAL CREDIT HOURS	71		

See last page for footnotes

#### **EMERGENCY FIRE SERVICES**

3554

FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides a scheduling option for full-time associate degree students who plan to finish in two years.

<u>Summer</u>		Credit Hours	Pre and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
EMS121	Emergency Medical Technician^+#	7	IDS102 or Proficiency
BIO101	Introduction to Anatomy & Physiology^+	<u>3</u>	IDS102 or Proficiency
		11	
First Semester			
EMS122	Paramedic I+ ▲ -	9	BIO101 and EMS121 and Co-EMS124
EMS124	Paramedic I Clinical+ ▲ -	1	BIO101 and EMS121 and Co-EMS122
ENG124	College Composition <sup>^</sup>	<u>3</u>	Co-ENG024 or Co-ENG011or Proficiency
		13	
Second Semester			
EMS221	Paramedic II+ ▲+	9	EMS122 and EMS124 and Co-EMS223
EMS223	Paramedic II Clinical + ▲+	2	EMS122 and EMS124 and Co-EMS221
MTH125	College Algebra^	<u>4</u>	MTH023 or Pre-Co-MTH025
		15	or Proficiency
Cumman		15	
Summer EMS222	Paramedic III+▲*	2	EMS221 and EMS223 and Co-EMS226
	Paramedic III Clinical+ ▲ *	3	
EMS226		1	EMS221 and EMS223 and Co-EMS222
PSY121	General Psychology <sup>^</sup>	<u>3</u> 7	IDS102 or Proficiency
Thind Commenter		1	
Third Semester EMS224	Paramedic IV+ ▲ -	4	EMS222 and EMS226 and Co-EMS225
EMS225	Paramedic IV Clinical+ A -	4 1	EMS222 and EMS226 and Co-EMS224
COM122		3	EMS222 and EMS220 and CO-EMS224
	Interpersonal Communication Ethics	3	
PHL122	Etnics	<u>3</u> 11	
Essentia Commenter		11	
Fourth Semester FST228	Firefighter 1 & 2++*	11	IDC102 on Proficionary
	Č		IDS102 or Proficiency
ITD122	Computer Applications for Professionals <sup>^</sup>	<u>3</u>	IDT100 or Proficiency
		14	
	Total Credits	71	

<sup>^</sup>Based on SSC placement score.

#EMS121 is a prerequisite for EMS122. A student can waive this course by showing proof of current State of Ohio EMT Certification. This certification is required for enrollment to the paramedic program.

- ▲+ Spring only courses. Please see your academic advisor for availability.
- ▲ Fall only courses. Please see your academic advisor for availability.
- ▲\* Summer only courses. Please see your academic advisor for availability.

This program requires an application (separate from the College). Please see your advisor to discuss the application process.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>+</sup>Minimum grade of "B" required.

<sup>\*</sup>Students must contact the Fire Program Coordinator prior to registering.

# Stark State COLLEGE

#### CAREER ENHANCEMENT CERTIFICATE

### HUMAN AND SOCIAL SERVICES GERONTOLOGY MAJOR

2021Catalog

Effective Summer 2020

1006

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing.

Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Human Services and Justice Studies Department

Course Number	Course Title	Credits	Pre- and Co- Requisites	Completed Sem./Year
GER121	Introduction to Gerontology++	3		
GER122	Psychosocial Aspects of Aging++	3		
	Technical Elective 1: Select one (1) from list below*++	2-5		
	Technical Elective 2: Select one (1) from list below**++	3-5		
	TOTAL CREDIT HOURS	11-16		

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
GER121	Introduction to Gerontology++	3	
GER122	Psychosocial Aspects of Aging++	3	
Technical Elective 1	*++	2-5	
Technical Elective 2	**++	<u>3-5</u>	
	TOTAL CREDITS	11-16	

<sup>++</sup>Minimum grade of "C" required.

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<sup>\*</sup>Technical Electives 1: ENG124, FIN123, FIN224, HIT230, OTA223, PSY121, PSY123, SWK230

<sup>\*\*&</sup>lt;u>Technical Elective 2</u>: ACC132, BIO101, BIO121, BIO122, BIO123, BIO127, FIN222, MAT231



### MY AGADEMIC PLAN

#### CAREER ENHANCEMENT CERTIFICATE

# HUMAN AND SOCIAL SERVICES - CHEMICAL DEPENDENCY MAJOR

1007

2021 Catalog

Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Human Services and Justice Studies Department

Course Number	Course Title	Credits	Pre- and Co- Requisites	Completed Sem./Year
SWK125	Substance Abuse++^	3	IDS102 or Proficiency	
SWK225	Victimization and Crisis Intervention	3	ENG124	
CDC121	Chemical Dependency: Assessment and Treatment Planning++	3	SWK121 and SWK125	
CDC122	Fundamentals of Chemical Dependency Practice I++	3	SWK125	
CDC221	Chemical Dependency and the Family++	3	SWK125	
CDC222	Fundamentals of Chemical Dependency Practice II++	3	CDC122	
CDC223	Chemical Dependency and Prevention++	1	SWK125	
CDC224	Chemical Dependency and Ethics++	1	SWK125	
	TOTAL CREDIT HOURS	20		

#### STUDENT ADVISING NOTES

#### **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester SWK125 SWK225	Substance Abuse++^ Victimization and Crisis Intervention	<u>Credit Hours</u> 3 <u>3</u> <b>6</b>	Pre- and Co-requisites IDS102 or Proficiency ENG124
Second Semester CDC121	Chamical Danandanay, Assassment and Treatment	3	SWK121 and SWK125
CDC121	Chemical Dependency: Assessment and Treatment Planning++	3	SWK121 and SWK123
CDC122	Fundamentals of Chemical Dependency Practice I++	3	SWK125
CDC223	Chemical Dependency and Prevention++	<u>1</u>	SWK125
		7	
Third Semester			
CDC221	Chemical Dependency and the Family++	3	SWK125
CDC222	Fundamentals of Chemical Dependency Practice II++	3	CDC122
CDC224	Chemical Dependency and Ethics++	<u>1</u>	SWK125
		7	
	TOTAL CREDITS	20	

<sup>^</sup>Based on SSC placement scores.

<sup>++</sup>Minimum grade of "C" required.



# POLICE SCIENCE

2021 Catalog

Effective Summer 2020

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The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Health and Public Services Division

Human Services and Justice Studies Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CJS140	Law Enforcement Academy I^++	12	IDS102 or Proficiency	
CJS240	Law Enforcement Academy II^++	12	CJS140	
	TOTAL CREDIT HOURS	24		

#### STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
CJS140	Law Enforcement Academy I^++	<u>12</u>	IDS102 or Proficiency
		12	
Second Semester			
CJS240	Law Enforcement Academy II^++	<u>12</u>	CJS140
		12	
	TOTAL CREDITS	24	

<sup>^</sup>Based upon SSC placement score

**Note:** Stark State College's Police Science Career Enhancement Certificate is for individuals interested in pursuing a career in law enforcement. This is an intensive, two-semester program.

Background checks are completed and submitted to BCI and FBI prior to acceptance into the Police Science certificate program. Individuals who have been convicted of a felony, domestic violence, or drug convictions will not be eligible for the Police Science program. Application packets are available through the Education, Liberal Arts, and Mathematics Division.

All instructors are certified by the Ohio Peace Office Training Commission. Individuals who successfully complete the Police Science Career Enhancement Certificate program and pass the practical exercises are eligible to take the state (Ohio Basic Peace Officer Certification) examination.

<sup>++</sup>Minimum grade of "C" required.

### **LIBERAL ARTS**



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



# ASSOCIATE OF APPLIED SCIENCE TECHNICAL COMMUNICATIONS

**2021 Catalog**Effective Summer 2020

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

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# Arts and Sciences Division

# English and Modern Languages Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG125	Technical Editing and Layout ▲+	3	ENG124	
ENG126	Technical Grammar and Style ▲+	3	ENG124	
ENG221	Technical Report Writing	3	ENG124	
COM223	Interviewing I▲-	3		
ENG250	Technical Communications Internship	3	Completed final semester	
ENG227	Writing for Media	3	ENG124	
ENG228	Writing for the Web▲-	3	ENG124	
ENG229	Grant Writing	3	ENG124	
TECHNICAL EL	ECTIVES: 3 credit hours minimum			
WDD121	Internet Design & Development^	3	IDS102 or Proficiency	
AOT235	Legal Research and Writing	3		
IMT121	Interactive Media	3		
IMT122	Graphic Arts Design	3	ITD100 or Proficiency	
	Total	30		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
COM122	Interpersonal Communication	3		
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG231	College Composition II	3	ENG124	
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency	
or	or	or	, and the second	
MTH124	Statistics <sup>^</sup> Ω	3	MTH022 or Pre-Co-MTH024 or Proficiency	
	Select one (1) Arts & Humanities Elective from the list below <sup>2</sup>	3	Check for prerequisites	
	Select two (2) Social Science Electives from the list below <sup>3</sup>	6	Check for prerequisites	
	Select two (2) Natural Sciences Electives from the list below ⁴▲	6-8	Check for prerequisites	
	Select one (1) Communication Elective from the list below <sup>5</sup>	3	Check for prerequisites	
	Total	31-33		
	TOTAL CREDIT HOURS	61-63		

<sup>^</sup>Based upon SSC placement scores.

 $\Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>2</sup> Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>3</sup> Social Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY123, PSY221, SOC121, SOC123

<sup>&</sup>lt;sup>4</sup> Natural Sciences Electives: BIO101, BIO121, BIO126, BIO127, BIO128, BIO129, BIO130, CHM101, PHY101

<sup>&</sup>lt;sup>5</sup> Communication Elective: COM121, COM123, COM125

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

# **TECHNICAL COMMUNICATIONS**

1200

# FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester SSC101	Student Success Seminar^^	Credit Hours	<u>Pre- and Co-Requisites</u> Take first semester
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency
COM122 Communication Ele	Interpersonal Communication ctive 5	3 3	Check for prerequisites
MTH108	Explorations in Modern Mathematics^	3	MTH022 or MTH023 or Proficiency
or	or	or	MELIO22 D. C. MELIO24
MTH124	Statistics <sup>^</sup> Ω	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency
ITD122	Computer Applications for Professionals^	3 16	ITD100 or Proficiency
Second Semester			
ENG231	College Composition II	3	ENG124
Natural Sciences El	ective 4 🛧	3-4	Check for prerequisites
COM223	Interviewing I▲-	3	
ENG221	Technical Report Writing	3	ENG124
ENG227	Writing for Media	<u>3</u>	ENG124
		15-16	
Third Semester			
ENG125	Technical Editing and Layout ▲+	3	ENG124
ENG126	Technical Grammar and Style ▲+	3	ENG124
Social Science Elec		3	Check for prerequisites
Natural Sciences El		3-4	Check for prerequisites
Arts & Humanities	Elective <sup>2</sup>	<u>3</u>	Check for prerequisites
		15-16	
Fourth Semester			
ENG228	Writing for the Web▲-	3	ENG124
ENG229	Grant Writing	3	ENG124
ENG250	Technical Communications Internship	3	Completed final semester
Social Science Elec		3	Check for prerequisites
Technical Elective <sup>1</sup>		<u>3</u>	Check for prerequisites
		15	
	TOTAL CREDITS	61-63	

<sup>^</sup>Based upon SSC placement scores.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

 $<sup>\</sup>Omega$  MTH124 should only be taken by students planning to transfer to a four-year institution.

<sup>&</sup>lt;sup>1</sup> Technical Elective: AOT235, IMT121, IMT122, WDD121

<sup>&</sup>lt;sup>2</sup> Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>&</sup>lt;sup>3</sup> Social Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY123, PSY221, SOC121, SOC123

<sup>&</sup>lt;sup>4</sup> Natural Sciences Electives: BIO101, BIO121, BIO126, BIO127, BIO128, BIO129, BIO130, CHM101, PHY101

<sup>&</sup>lt;sup>5</sup> Communication Elective: COM121, COM123, COM125

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.



# ASSOCIATE OF ARTS **ASSOCIATE OF ARTS - GENERAL**

2021 Catalog

Effective Summer 2020

7100

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Arts and Sciences Division

Education and Social Sciences Department

Aris una sciences Division		Zaucanon ana Social Sciences Department		
Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year	
Student Success Seminar^^	1	Take first semester		
Computer Applications for Professionals^	3	ITD100 or Proficiency		
ON: 6 credit hours minimum				
College Composition^ (required)	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency		
Technical Report Writing	3	ENG124		
Business Communication	3	ENG124		
College Composition II	3	ENG124		
Effective Speaking	3			
Interpersonal Communication	3			
Small Group Communication	3	IDS102 or Proficiency		
Introduction to Communication Theory^▲-	3	IDS102 or Proficiency		
Introduction to Mass Communication ▲+	3			
5: 12 credit hours minimum				
Basic Economics^	3	IDS102 or Proficiency		
Microeconomics^	3	IDS102 or Proficiency		
Macroeconomics^	3	IDS102 or Proficiency		
Political Science	3			
General Psychology^	3	IDS102 or Proficiency		
Human Growth and Development	3	PSY121		
Industrial/Organizational Psychology	3			
Psychology of Personality	3	PSY121		
Social Psychology	3	PSY121		
Abnormal Psychology	3	PSY121		
Sociology^	3	IDS102 or Proficiency		
Society and Technology	3			
Dynamics of the Family	3			
Social Problems	3	SOC121		
Cultural Diversity (required)	3			
* * * *	1			
British Literature: Medieval to 1785	3	ENG124		
	Student Success Seminar^^  ON: 6 credit hours minimum  College Composition^ (required)  Technical Report Writing  Business Communication  College Composition II  Effective Speaking  Interpersonal Communication  Small Group Communication  Introduction to Communication Theory^ \( \ \ \_ \)  Introduction to Mass Communication \( \_ + \_ \)  S: 12 credit hours minimum  Basic Economics^  Microeconomics^  Microeconomics^  Political Science  General Psychology^  Human Growth and Development  Industrial/Organizational Psychology  Psychology of Personality  Social Psychology  Sociology^  Sociology^  Society and Technology  Dynamics of the Family  Social Problems  Cultural Diversity (required)  minimum	Student Success Seminar^^ 1  Computer Applications for Professionals^ 3  ON: 6 credit hours minimum  College Composition^ (required) 3  Technical Report Writing 3  Business Communication 3  College Composition II 3  Effective Speaking 3  Interpersonal Communication 3  Small Group Communication 3  Introduction to Communication Theory^▲- 3  Introduction to Mass Communication ▲+ 3  S: 12 credit hours minimum  Basic Economics^ 3  Microeconomics^ 3  Microeconomics^ 3  Political Science 3  General Psychology^ 3  Human Growth and Development 3  Industrial/Organizational Psychology 3  Psychology of Personality 3  Social Psychology 3  Society and Technology 3  Dynamics of the Family 3  Social Problems 3  Cultural Diversity (required) 3  minimum	Student Success Seminar^^ 1 Take first semester    Computer Applications for Professionals^ 3 ITD100 or Proficiency   ON: 6 credit hours minimum   College Composition^ (required) 3 Co-ENG024 or Co-ENG011 or Proficiency   Technical Report Writing 3 ENG124     Business Communication 3 ENG124     College Composition II 3 ENG124     Effective Speaking 3 Interpersonal Communication 3 IDS102 or Proficiency Introduction to Communication ↑	

<sup>^</sup>Based on SSC placement scores.

^To promote student success, this course should be taken in the first semester.

-Fall only courses. Please see your academic advisor for availability.

-Fall only courses. Please see your academic advisor for availability.

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# **ASSOCIATE OF ARTS - GENERAL**

**7100** 

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG235	Introduction to Shakespeare ▲+	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	
ENG241	Major Modern Writers ▲+	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
PHL122	Ethics	3		
SCIENCES & MATHE	EMATICS	·		•
Natural Sciences: 7 cre	edit hours minimum (1 lab course required)			
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO126	Science, Energy, and the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO128	Climate Studies (lab) ▲+	3		
BIO129	Meteorology (lab)	3		
BIO130	Ocean Studies (lab) ▲-	3		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM100	Exploring Science and Technology (lab)	4		
CHM101	Introduction to Chemistry^ ▲	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., and Bio Chemistry I (lab)^▲	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM122	Gen., Org., and Bio Chemistry II (lab) ▲+	4	CHM121	
CHM141	General Chemistry I (lab)^▲	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
CHM205	Forensic Chemistry (lab)	4	CHM105 or CHM121 or CHM141	
GEO141	Physical Geology (lab)	4		
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)	4	MTH135 <b>or</b> (MTH125 and MTH130)	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
PHY105	Astronomy (lab)	4		

<sup>^</sup> Based on SSC placement scores.

^ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

♣ -Fall only courses. Please see your academic advisor for availability.

♣ +Spring only courses. Please see your academic advisor for availability.

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# **ASSOCIATE OF ARTS - GENERAL**

**7100** 

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
Mathematics: 3 cre	dit hours minimum			
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
MTH125	College Algebra^	4	MTH023 <b>or</b> Pre-Co-MTH025 <b>or</b> Proficiency	
MTH130	Trigonometry	3	MTH125	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
MTH221	Concepts of Calculus^▲+	3	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH 135 or (MTH125 and MTH130) or Proficiency	
ADDITIONAL ELE	ADDITIONAL ELECTIVES TO COMPLETE DEGREE		Check for prerequisites	
	TOTAL CREDIT HOURS (60 hour minimum)	60-63		

# ASSOCIATE OF ARTS GENERAL ELECTIVES

The Associate of Arts Degree requires a minimum of 60 credit hours. Students should select additional courses from the previous page or choose elective courses from the list below. Please note, courses on the previous pages are OTM and/or TAG with the exception of SSC101 and IDS122; the listing on this page may contain OTM or TAG courses. Please see your academic advisor for assistance with course selection.

ADDITIONAL LIBERAL ARTS COURSES				
Arts and Humanities	English and Modern Languages			
ENG239 Film Appreciation (3)▲+	ENG125 Technical Editing and Layout (3)▲+			
ENG 240 Women's Literature (3)▲-	ENG126 Technical Grammar and Style (3) ▲+			
ASL122 American Sign Language I (4)	ENG227 Writing for Media (3)			
ASL124 American Sign Language II (4)	ENG228 Writing for the Web (3)▲-			
ASL221 American Sign Language III (4)	ENG229 Grant Writing (3)			
	ENG232 Scriptwriting (3)▲+			
Communication	ENG238 Introduction to Creative Writing (3) ▲+			
COM223 Interviewing (3)▲-	SPN100 Elementary Spanish I (4)			
	SPN200 Elementary Spanish II (4)▲+			
Social and Behavioral Sciences				
GER121 Introduction to Gerontology (3)	Criminal Justice			
GER122 Psychosocial Aspects of Aging (3)	CJS121 Introduction to Criminal Justice (3)			
PSC122 Introduction to Law and the Legal System (3)	CJS129 Corrections (3)			
PSC221 State and Local Government (3)	CJS221 Criminology (3)			
PSC222 Public Policy (3)				
PSY222 Psychological Aspects of Therapy (3)	Biology			
SOC222 Juvenile Delinquency (3)	BIO101 Introduction to Anatomy and Physiology (3) <sup>^</sup> ▲			
	BIO123 Principles of Human Structure & Function (5)#			
Experiential Learning	BIO222 Pharmacology (3)			
SSC201 Study Away: Experiential Learning (1)				

<sup>^</sup> Based on SSC placement scores.

<sup>#</sup>BIO121 and BIO122 may be substituted for BIO123.

<sup>♣</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

# **ASSOCIATE OF ARTS - GENERAL**

7100

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### Elective Additional Credit

Self-selection of course and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

# Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
ENG124	College Composition <sup>^</sup> (Required)	3	Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency
Arts & Humanities I	Elective <sup>1</sup>	3	Check for prerequisites
Social & Behavioral	l Science Elective^ 5	3 13	Check for prerequisites
		13	
Second Semester			
Arts & Humanities I		3	Check for prerequisites
Mathematics Electiv		3-5	Check for prerequisites
Natural Sciences Ele		3-5	Check for prerequisites
Written & Oral Com	nmunication Elective <sup>4</sup>	<u>3</u>	Check for prerequisites
		12-16	
Third Semester			
SOC225	Cultural Diversity ( <b>Required</b> )	3	
Natural Sciences Ele		4-5	Check for prerequisites
Arts & Humanities I		3	Check for prerequisites
Social & Behavioral	l Science Elective^ 5	3	Check for prerequisites
Social & Behavioral	l Science Elective^5	<u>3</u>	Check for prerequisites
		16-17	
Fourth Semester			
Elective <sup>6</sup> (Take an ac	dditional 14-20 credit hours to reach 60 credit hours)	14-20	Check for prerequisites
	TOTAL CREDITS	60-63	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

A Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> <u>Arts & Humanities Electives</u>: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

<sup>&</sup>lt;sup>2</sup> Mathematics Elective: MTH124, MTH125, MTH130, MTH135, MTH221, MTH223

<sup>&</sup>lt;sup>3</sup> Natural Sciences Electives: BIO121, BIO122, BIO124, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, BIO221, CHM100, CHM101, CHM105, CHM121, CHM122, CHM141, CHM142, CHM205, GEO141, PHY101, PHY105, PHY121, PHY122

<sup>&</sup>lt;sup>4</sup> Written & Oral Communication Elective: COM121, COM122, COM123, COM125, COM126, ENG221, ENG230, ENG231

<sup>&</sup>lt;sup>5</sup> <u>Social & Behavioral Science Electives</u>: BUS122, BUS221, BUS222, PSC121, PSY121, PSY123, PSY124, PSY131, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221

<sup>6</sup> Electives: ASL122, ASL124, ASL221, BIO101, BIO123, BIO222, CIS121, CIS129, CIS221, COM223, ENG239, ENG240, ENG125, ENG126, ENG227, ENG228, ENG232, ENG238, GER121, GER122, PSC122, PSC222, PSC222, PSC222, SPN100, SPN200, SSC201 or any additional Written & Oral Communication, Social & Behavioral Sciences, Arts & Humanities, or Science courses.



# ASSOCIATE OF ARTS ASSOCIATES OF ARTS – ENGLISH

2021 Catalog

Effective Summer 2020

7202

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

# English and Modern Languages Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year		
FRESHMAN EXPERIENCE						
SSC101	Student Success Seminar^^	1	Take first semester			
COMPUTER AP	PLICATIONS					
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency			
ENGLISH COM	POSITION: 6 credit hours required					
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency			
ENG231	College Composition II	3	ENG124			
	REE ELECTIVES: 20-21 credit hours required for			m the following		
	n areas. A maximum of 8 credit hours may be chose	en from the	additional AA options.			
ENG221		2	ENG124			
ENG221 ENG227	Technical Report Writing	3	ENG124 ENG124			
	Writing for the Media	3	ENG124 ENG124			
ENG228	Writing for the Web▲-	3				
ENG229	Grant Writing Business Communication	3	ENG124			
ENG230			ENG124			
ENG232	Scriptwriting +	3	ENG124 and ENG227			
ENG238	Introduction to Creative Writing +		ENG124			
ENG233	LECTIVES: No duplications between this category of British Literature: Medieval to 1785	ina ine Ari 3	ENG124			
ENG233 ENG234	British Literature: 1785 to Present	3	ENG124 ENG124			
ENG234 ENG235	Introduction to Shakespeare ▲+	3	ENG124 ENG124			
ENG235 ENG236	American Literature: Colonial to 1865	3	ENG124 ENG124			
ENG230 ENG237	American Literature: 1865 to Present	3	ENG124 ENG124			
ENG237 ENG239	Film Appreciation ++	3	ENG124 ENG124			
ENG239 ENG240	Women's Literature ▲-	3	ENG124 ENG124			
ENG240 ENG241	Major Modern Writers ▲+	3	ENG124 ENG124			
	MMUNICATIONS ELECTIVES:	<u> </u>	ENG124			
ENG125	Technical Editing and Layout ▲+	3	ENG124			
ENG126	Technical Grammar and Style ▲+	3	ENG124			
ENG250	Technical Communications Internship	3	Completed final semester			
	SSOCIATE OF ARTS ELECTIVES: Maximum of 8					
COM121	Effective Speaking	3	J. Silv vivo curegory.			
SPN100	Elementary Spanish I	4				
SPN200	Elementary Spanish II 4+	4	SPN100			

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

 $<sup>\</sup>blacktriangle + Spring only courses. Please see your academic advisor for availability.$ 

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# **ASSOCIATES OF ARTS - ENGLISH**

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SOCIAL & BEHAVI	ORAL SCIENCES: 9 credit hours minimum			
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
PSY123	Human Growth and Development	3	PSY121	
PSY124	Industrial/Organizational Psychology	3		
PSY131	Psychology of Personality	3	PSY121	
PSY221	Abnormal Psychology	3	PSY121	
BUS122	Basic Economics^	3	IDS102 or Proficiency	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC122	Society and Technology	3	IDS102 of Froncisco	
SOC122	<del> </del>	3		
	Dynamics of the Family		900101	
SOC221	Social Problems	3	SOC121	
SOC225	Cultural Diversity (required)	3		
	IES: 12 credit hours minimum. No duplications between this cate		egory.	
PHL122	Ethics N. F. L. 1505	3	EVG104	
ENG233	British Literature: Medieval to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
SCIENCES & MATH	HEMATICS: 10 credit hours minimum			
Natural Sciences: 7 se	mester credit hours required. (Choose one 3 hour course and on	e 4 hour course.)		
BIO101	Intro to Anatomy and Physiology^ A	3	IDS102 or Proficiency	
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO126	Science, Energy, and the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO128	Climate Studies (lab) ▲+	3		
BIO129	Meteorology (lab)	3		
BIO130	Ocean Studies (lab) ▲-	3		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
CHM100	Exploring Science and Technology (lab)	4		
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org. and Bio Chemistry I (lab) ^	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
GEO141	Physical Geology (lab)	4		

See next page for footnotes.

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PHY101	Principles of Physics (lab) ^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
PHY105	Astronomy (lab)	4		
Mathematics: 3 semes	ster credit hours required			
MTH108	Explorations in Modern Mathematics	3	MTH022 or MTH023 or Proficiency	
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency	
MTH125	College Algebra^	4	MTH023 or Pre-Co-MTH025 or Proficiency	
	TOTAL CREDIT HOURS	61-63		

<sup>^</sup>Based on SSC placement scores.

^Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

^-Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

Effective Summer 2020

# **ASSOCIATES OF ARTS - ENGLISH**

7202

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting. The Associate of Arts in English Degree requires a minimum of 60 credit hours. Students should choose elective courses from the first page or receive approval from the department chair for other related electives. Students are responsible for knowing and following all pre-requisites for the courses below. Please see your academic advisor for assistance with course selection.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish the degree in two years.

# Elective Additional Credit

Self-selection of course and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit u-select at <a href="http://www.transfer.org/uselect">http://www.transfer.org/uselect</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester		Credit Hours	Pre-or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition <sup>^</sup> (required)	3	Co-ENG024 or Co-ENG011
			or Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
Mathematics Elec	ctive 1	3	Check for prerequisites
Arts & Humanitie	es Elective 2	3	Check for prerequisites
Social & Behavio	ral Science Elective <sup>3</sup>	<u>3</u>	Check for prerequisites
		16	
Second Semester			
ENG231	College Composition II (required)	3	ENG124
SOC225	Cultural Diversity (required)	3	
Natural Sciences	Elective <sup>▲ 4</sup>	3-4	Check for prerequisites
Arts & Humanitie	es Elective <sup>2</sup>	3	Check for prerequisites
Additional Englis	h Elective <sup>5</sup>	<u>3</u>	Check for prerequisites
		15-16	
Third Semester			
Arts & Humanitie	es Elective <sup>2</sup>	3	Check for prerequisites
Natural Sciences	Elective <sup>▲ 4</sup>	3	Check for prerequisites
Social & Behavio	ral Science Elective <sup>3</sup>	3	Check for prerequisites
Additional Englis	h Elective <sup>5</sup>	3	Check for prerequisites
Additional Englis	h Elective <sup>5</sup>	<u>3</u> <b>15</b>	Check for prerequisites
		15	
Fourth Semester			
Arts & Humanitie	es Elective <sup>2</sup>	3	Check for prerequisites
Additional Englis	h Elective <sup>5</sup>	4	Check for prerequisites
Additional Englis	h Elective <sup>5</sup>	3	Check for prerequisites
Additional Englis	h Elective <sup>5</sup>	3	Check for prerequisites
Additional Englis	h Elective <sup>5</sup>	<u>3</u>	Check for prerequisites
		16	
	TOTAL CREDITS	61-63	

<sup>^</sup> Based on SSC placement scores.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> Mathematics Elective: MTH108, MTH124, MTH125

<sup>&</sup>lt;sup>2</sup> Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122

<sup>&</sup>lt;sup>3</sup> Social & Behavioral Science Elective: BUS122, BUS221, BUS222, PSC121, PSY121, PSY123, PSY124, PSY131, PSY221, SOC121, SOC122, SOC123, SOC221

<sup>&</sup>lt;sup>4</sup> <u>Natural Sciences Elective</u>: BIO101, BIO121, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, CHM100, CHM101, CHM105, CHM121, GEO141, PHY101, PHY105, PHY121

<sup>&</sup>lt;sup>5</sup> <u>Additional English Elective</u>: COM121, ENG125, ENG126, ENG221, ENG227, ENG228, ENG229, ENG230, ENG232, ENG233, ENG234, ENG235, ENG236, ENG237, ENG238, ENG239, ENG240, ENG241, ENG250, SPN100, SPN200

# Stark State COLLEGE

# ASSOCIATE OF ARTS **PSYCHOLOGY**

2021 Catalog

Effective Summer 2020

**7210** 

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

Education and Social Sciences Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXI	PERIENCE			genn, rear
SSC101	Student Success Seminar^^	1	Take first semester	
COMPUTER API	PLICATIONS	•	, , , , , , , , , , , , , , , , , , ,	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
WRITTEN & OR	AL COMMUNICATION: 9 credit hours mini	mum	•	
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG231	College Composition II	3	ENG124	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
COM123	Small Group Communication	3	IDS102 or Proficiency	
BEHAVIORAL S	CIENCES: 24 credit hours required		•	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PSY123	Human Growth and Development	3	PSY121	
PSY124	Industrial/Organizational Psychology	3		
PSY131	Psychology of Personality	3	PSY121	
PSY220	Social Psychology	3	PSY 121	
PSY221	Abnormal Psychology	3	PSY121	
PSY222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency	
PSY229	Psychological Methods	3	PSY123 and PSY220 and PSY221 and PSY222	
SOCIAL SCIENC	CES: 6 credit hours minimum			
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC123	Dynamics of the Family	3	·	
SOC221	Social Problems	3	SOC121	
SOC225	Cultural Diversity ( <b>required</b> )	3		
CJS121	Introduction to Criminal Justice	3		
ELECTIVES: 3 d				
CJS221	Criminology	3	CJS121	
COM223	Interviewing	3		
GER121	Gerontology	3		
PSC122	Introduction to Law and the Legal System^	3	IDS102 <b>or</b> Proficiency	
PSC121	Political Science	3		
PSC221	State and Local Government	3	PSC121	
PSC222	Public Policy	3	PSC121	
SSC201	Study Away: Experiential Learning	1	Permission of Instructor	
SWK125	Substance Abuse^	3	IDS102 <b>or</b> Proficiency	
	ΓΙΕS: 6 credit hours minimum			
PHL122	Ethics (required)	3		
ASL122	American Sign Language I	4		
ASL124	American Sign Language II	4	ASL122	
ASL221	American Sign Language III	4	ASL124	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

# **PSYCHOLOGY**

**7210** 

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ARTS & HUMANIT	TIES: 6 credit hours minimum	•		
ENG233	British Literature: Medieval to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17 <sup>th</sup> Century	3		
HIS222	World Civilization from 17 <sup>th</sup> Century	3		
SPN100	Elementary Spanish I	4		
SPN200	Elementary Spanish II ▲+	4	SPN100	
SCIENCES & MATI				
Natural Sciences: 6	semester credit hours minimum (1 lab course require	<i>d</i> )		
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO126	Science, Energy, and the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO128	Climate Studies (lab) ▲+	3		
BIO129	Meteorology (lab)	3		
BIO130	Ocean Studies (lab) A-	3		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM100	Exploring Science and Technology (lab)	4	OI BIOTTI	
CHM101	Introduction to Chemistry^ \	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM105	Introduction to Forensic Science (lab)	3	j	
CHM121	Gen., Org., and Bio Chemistry I (lab)^	4	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH107	
CHM205	Forensic Chemistry (lab)	4	CHM105 or CHM121 or CHM141	
GEO141	Physical Geology (lab)	4	1 2 25 12	
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
PHY105	Astronomy (lab)	4		
Mathematics: 3 seme	ster credit hours required			
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
TOTAL CREDITS I	IOURS	61-63	·	

<sup>^</sup>Based on SSC placement scores.

^Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

^-Fall only courses. Please see your academic advisor for availability.

^+Spring only courses. Please see your academic advisor for availability.

# **PSYCHOLOGY**

**7210** 

# FULL-TIME STUDENT ADVISING NOTES

# **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre-or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENG124	College Composition <sup>^</sup> (required)	3	Co-ENG024 or Co-ENG011
		_	or Proficiency
PHL122	Ethics (required)	3	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency
Social Science Ele	ctive <sup>4</sup>	<u>3</u>	Check for prerequisites
~		16	
Second Semester	D 1.1 CD 11:	2	DGX/101
PSY131	Psychology of Personality	3	PSY121
SOC225	Cultural Diversity ( <b>required</b> )	3	
Natural Sciences I		3-4	Check for prerequisites
PSY123	Human Growth and Development	3	PSY121
PSY124	Industrial/Organizational Psychology	<u>3</u>	
Til. 1 C		15-16	
Third Semester		2	
	ommunication Elective <sup>3</sup>	3	Check for prerequisites
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency
PSY220	Social Psychology	3	PSY121
PSY221	Abnormal Psychology	3	PSY121
PSY222	Psychological Aspects of Therapy <sup>^</sup>	3 <u>3</u>	IDS102 <b>or</b> Proficiency
- ~	,	15	
Fourth Semester			
Arts & Humanities	Elective <sup>1</sup>	3	Check for prerequisites
Natural Sciences I	Elective <b>^</b> <sup>2</sup>	3-4	Check for prerequisites
Written & Oral Co	ommunication Elective <sup>3</sup>	3	Check for prerequisites
Elective 5		3	Check for prerequisites
PSY229	Psychological Methods	<u>3</u>	PSY123 and PSY220 and PSY221 and PSY222
		15-16	
	TOTAL CREDITS	61-63	

<sup>^</sup>Based on SSC placement scores.

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<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> Arts & Humanities Elective: ASL122, ASL124, ASL221, CHN100, CHN200, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, SPN100, SPN200

<sup>&</sup>lt;sup>2</sup> Natural Sciences Elective: BIO121, BIO122, BIO124, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, BIO221, CHM100, CHM101, CHM105, CHM121, CHM205, GEO141, PHY101, PHY105, PHY121

<sup>&</sup>lt;sup>3</sup> Written & Oral Communication Elective: COM121, COM122, COM123, ENG221, ENG230, ENG231

<sup>&</sup>lt;sup>4</sup> Social Science Elective: CJS121, SOC121, SOC123, SOC221

<sup>5 &</sup>lt;u>Elective</u>: CJS221, COM223, GER121, PSC121, PSC122, PSC221, PSC222, SSC201, SWK125.



# ASSOCIATE OF ARTS APPLIED SOCIOLOGY

2021 Catalog

Effective Summer 2020

7211

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

Education and Social Sciences Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year		
FRESHMAN EXPERIENCE						
SSC101	Student Success Seminar^^	1	Take first semester			
COMPUTER AP	PLICATIONS					
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency			
WRITTEN & OR	AAL COMMUNICATION: 9 credit hours min	imum				
ENG124	College Composition (required)^	3	Co-ENG024 or Co-ENG011 or Proficiency			
ENG221	Technical Report Writing	3	ENG124			
ENG230	Business Communication	3	ENG124			
ENG231	College Composition II	3	ENG124			
COM121	Effective Speaking	3				
COM122	Interpersonal Communication	3				
COM123	Small Group Communication	3	IDS102 or Proficiency			
COM125	Introduction to Communication Theory^▲-	3	IDS102 or Proficiency			
SOCIOLOGICA	L SCIENCES: 21 credit hours required					
SOC121	Sociology^	3	IDS102 or Proficiency			
SOC123	Dynamics of the Family	3				
SOC221	Social Problems	3	SOC121			
SOC225	Cultural Diversity (required)	3				
SOC228	Social Structure and the Individual ▲-	3	SOC121			
SOC229	The African American Experience ▲+	3	SOC121			
SOC230	Applied Sociological Methods	3	SOC123 and SOC221 and SOC225 and SOC228 and SOC229 and MTH124			
BEHAVIORAL S	SCIENCES: 6 credit hours minimum					
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency			
PSY123	Human Growth and Development	3	PSY121			
PSY124	Industrial/Organizational Psychology	3				
PSY221	Abnormal Psychology	3	PSY121			
ELECTIVES: 6 c	redit hours minimum					
CJS121	Introduction to Criminal Justice	3				
CJS221	Criminology	3	CJS121			
COM225	Sex, Gender and Culture ▲+	3				
GER121	Introduction to Gerontology	3				
GER122	Psychosocial Aspects of Aging	3				

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

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# **APPLIED SOCIOLOGY**

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PSC122	Introduction to Law and the Legal System^	3	IDS102 or Proficiency	
PSC121	Political Science	3		
PSC221	State and Local Government	3	PSC121	
PSC222	Public Policy	3	PSC121	
SOC122	Society and Technology	3		
SOC222	Juvenile Delinquency	3	SOC121	
SSC201	Study Away: Experiential Learning	1	Permission of Instructor	
ARTS AND HUMA	NITIES: 6 credit hours minimum	_L		
PHL122	Ethics (required)	3		
ASL122	American Sign Language I	4		
ASL124	American Sign Language II	4	ASL122	
ASL221	American Sign Language III	4	ASL124	
ENG233	British Literature Medieval to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124 ENG124	
ENG236	American Literature: Colonial to 1865	3		
ENG237	American Literature: 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
SPN100	Elementary Spanish I	4		
SPN200	Elementary Spanish II ▲+	4	SPN100	
SCIENCES AND M	IATHEMATICS			
Natural Sciences:	s semester credit hours minimum (1 lab course requi	red)		
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO126	Science, Energy and the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO128	Climate Studies (lab) ▲+	3		
BIO129	Meteorology (lab)	3		
BIO130	Ocean Studies (lab) A-	3		
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM100	Exploring Science and Technology (lab)	4		
CHM101	Introduction to Chemistry^ ▲	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., & Bio Chemistry I (lab)^▲	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM205	Forensic Chemistry (lab)	4	CHM105 or CHM121 or CHM141	
CHM122	Gen., Org., & Bio Chemistry II (lab) ▲+	4	CHM121	
GEO141	Physical Geology (lab)	4		

See next page for footnotes.

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PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)
PHY121	College Physics I with Algebra (lab)	4	MTH135 <b>or</b> (MTH125 and MTH130)
PHY105	Astronomy (lab)	4	
Mathematics: 3 se	emester credit hours required		
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency
	TOTAL CREDITS HOURS	61-64	

<sup>^</sup>Based on SSC placement scores.

- ▲-Fall only courses. Please see your academic advisor for availability.
- ▲+Spring only courses. Please see your academic advisor for availability.

ABecause of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Effective Summer 2020

# FULL-TIME STUDENT ADVISING NOTES

# **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre-or Co-requisites
	Student Success Seminar^^	1	Take first semester
ITD122	Computer Applications For Professionals <sup>^</sup>	3	ITD100 or Proficiency
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency
Written and Ord	al Communication Elective <sup>3</sup>	3	Check for prerequisites
SOC225	Cultural Diversity (required)	3	* * *
SOC121	Sociology <sup>^</sup>	3 16	IDS102 or Proficiency
		16	
Second Semeste	<u>er</u>		
Sociology Elect	$ive^4$	3	Check for prerequisites
SOC221	Social Problems	3	SOC121
	Dynamics of the Family	3	
Behavioral Scie	ences Elective <sup>5</sup>	3	Check for prerequisites
Natural Science	es Elective ♣²	<u>3-4</u>	Check for prerequisites
		15-16	
Third Semester			
Natural Science		3-4	Check for prerequisites
	al Communication Elective <sup>3</sup>	3	Check for prerequisites
SOC228	Social Structure and the Individual ▲-	3	SOC121
MTH124	Statistics^	<u>3</u>	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency
		12-13	·
Fourth Semeste	<u>r</u>		
Arts and Human	nities Elective <sup>1</sup>	3-4	Check for prerequisites
Sociology Elect	$ive^4$	3	Check for prerequisites
Behavioral Scie		3	Check for prerequisites
SOC229	The African American Experience ▲+	3	SOC121
PHL122	Ethics (required)	3	
SOC230	Applied Sociological Methods	<u>3</u>	SOC123 and SOC221 and SOC225 and SOC228 and SOC229 and MTH124
		18-19	
	TOTAL CREDITS	61-64	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Arts and Humanities Electives: ASL122, ASL124, ASL221, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, SPN100, SPN200 Natural Sciences Electives: BIO121, BIO122, BIO124, BIO126, BIO127, BIO128, BIO129, BIO130, BIO221, CHM100, CHM101, CHM105, CHM121, CHM122, CHM205, GEO141, PHY101, PHY105, PHY121

<sup>&</sup>lt;sup>3</sup>Written and Oral Communication Electives: COM121, COM122, COM123, COM125, ENG221, ENG230, ENG231

<sup>4</sup>Electives: CJS121, CJS221, COM225, GER121, GER122, PSC121, PSC122, PSC221, PSC222, SOC122, SOC222, SSC201

<sup>&</sup>lt;sup>5</sup>Behavioral Sciences Electives: PSY121, PSY123, PSY124, PSY221

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.



# ASSOCIATE OF ARTS COMMUNICATION

2021 Catalog

Effective Summer 2020

7215

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

Communication, Humanities, and Reading Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year		
FRESHMAN EXPERIENCE						
SSC101	Student Success Seminar^^	1	Take first semester			
CORE CLASSES	: 15 credit hours required					
COM121	Effective Speaking	3				
COM122	Interpersonal Communication	3				
COM123	Small Group Communication^	3	IDS102 or Proficiency			
COM125	Introduction to Communication Theory^▲-	3	IDS102 or Proficiency			
COM126	Introduction to Mass Communication ▲+	3				
COMMUNICAT	ION ELECTIVES: 9 credit hours minimum					
COM223	Interviewing I▲-	3				
COM225	Sex, Gender, and Culture ▲+	3				
COM227	Intercultural Communication -	3				
COM228	Nonverbal Communication ▲ -	3				
COM229	Persuasion^▲+	3	IDS102 or Proficiency			
COMPUTER AP	PLICATIONS: 3 credit hours required	<u>.</u>				
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency			
ENGLISH AND	MODERN LANGUAGES: 6 credit hours minimum					
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency			
ENG221	Technical Report Writing	3	ENG124			
ENG230	Business Communication	3	ENG124			
ENG231	College Composition II	3	ENG124			
ENG227	Writing for Media	3	ENG124			
ENG228	Writing for the Web▲-	3	ENG124			
ENG126	Technical Grammar and Style ▲+	3	ENG124			
SPN100	Elementary Spanish I	4				
SPN200	Elementary Spanish II 4+	4	SPN100			

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SOCIAL & BEHA	VIORAL SCIENCES: 9 credit hours minimum	ı		
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
PSY123	Human Growth and Development	3	PSY121	
PSY124	Industrial / Organizational Psychology	3		
PSY220	Social Psychology	3	PSY121	
BUS122	Basic Economics^	3	IDS102 or Proficiency	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC122	Society and Technology	3		
SOC123	Dynamics of the Family	3		
SOC221	Social Problems	3	SOC121	
SOC225	Cultural Diversity ( <b>required</b> )	3		
ARTS & HUMAN	ITIES: 9 credit hours minimum			
PHL122	Ethics	3		
ENG233	British Literature: Medieval to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
SCIENCES & MA	THEMATICS			
Natural Sciences:	6 credit hours minimum (1 lab course required)			
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO126	Science, Energy, and the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO128	Climate Studies (lab) ▲+	3		
BIO129	Meteorology (lab)	3		
BIO130	Ocean Studies (lab) ▲-	3		

<sup>^</sup>Based on SSC placement scores.

<sup>♣</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM100	Exploring Science and Technology (lab)	4		
CHM101	Introduction to Chemistry^▲	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., and Bio Chemistry I (lab)^▲	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM122	Gen., Org., and Bio Chemistry II (lab) ▲+	4	CHM121	
CHM205	Forensic Chemistry (lab)	4	CHM105 or CHM121 or CHM141	
GEO141	Physical Geology (lab)	4		
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency	
PHY122	College Physics II with Algebra (lab) ▲*	4	PHY121	
PHY105	Astronomy (lab)	4		
Mathematics: 3 c	redit hours minimum			
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
MTH125	College Algebra^	4	MTH023 or Pre-Co-MTH025 or Proficiency	
	TOTAL CREDIT HOURS	61-65		

<sup>^</sup>Based on SSC placement scores.

ABecause of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

<sup>▲\*</sup>Summer only courses. Please see your academic advisor for availability.

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# FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

### Elective Additional Credit

Self-selection of course and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at http://www.transferology.com to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester		Credit Hours	Pre-or Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
ENG124	College Composition I <sup>^</sup> (required)	3	Co-ENG024 or Co-ENG011 or Proficiency
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
COM121	Effective Speaking	3	
Natural Sciences E	lective² ▲	3-4	Check for prerequisites
COM122	Interpersonal Communication	<u>3</u>	
		16-17	
Second Semester			
English & Modern	Languages Elective <sup>5</sup>	3-4	Check for prerequisites
COM125	Introduction to Communication Theory^▲-	3	IDS102 or Proficiency
Mathematics Electr	$ive^6$	3-4	Check for prerequisites
Communication El	ective <sup>3</sup>	3	Check for prerequisites
Arts and Humanitie	es Elective <sup>4</sup>	<u>3</u>	Check for prerequisites
		15-17	
Third Semester			
COM123	Small Group Communication <sup>^</sup>	3	IDS102 or Proficiency
Communication El	ective <sup>3</sup>	3	Check for prerequisites
SOC225	Cultural Diversity (required)	3	
Arts and Humanitie	es Elective <sup>4</sup>	3	Check for prerequisites
Social & Behaviore	al Science Elective <sup>1</sup>	<u>3</u> <b>15</b>	Check for prerequisites
		15	
Fourth Semester			
Natural Sciences E	llective <sup>2</sup> ▲	3-4	Check for prerequisites
COM126	Introduction to Mass Communication ▲+	3	
Communication El	ective <sup>3</sup>	3	Check for prerequisites
Social & Behaviore	al Science Elective <sup>1</sup>	3	Check for prerequisites
Arts and Humanitie	es Elective <sup>4</sup>	<u>3</u>	Check for prerequisites
		15-16	
	TOTAL CREDITS	61-65	

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> Social & Behavioral Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY123, PSY124, PSY220, SOC121, SOC122, SOC123, SOC221

<sup>&</sup>lt;sup>2</sup> Natural Sciences Electives: BIO101, BIO121, BIO122, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, BIO221, CHM100, CHM101, CHM105, CHM121, CHM122, CHM205, GEO141, PHY101, PHY105, PHY121, PHY122,

<sup>&</sup>lt;sup>3</sup> Communication Electives: COM223, COM225, COM227, COM228, COM229

<sup>&</sup>lt;sup>4</sup> Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122

<sup>&</sup>lt;sup>5</sup> English & Modern Languages Elective: ENG126, ENG221, ENG227, ENG228, ENG230, ENG231, SPN100, SPN200

<sup>&</sup>lt;sup>6</sup> Mathematics Elective: MTH124, MTH125

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.



# CAREER ENHANCEMENT CERTIFICATE ENGLISH – TECHNICAL COMMUNICATIONS

**2021 Catalog**Effective Summer 2020

1201

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

English and Modern Languages Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG125	Technical Editing and Layout ▲+	3	ENG124	
ENG227	Writing for Media	3	ENG124	
COM223	Interviewing I▲-	3		
	TOTAL CREDIT HOURS	18		

# STUDENT ADVISING NOTES

# **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011 or Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
COM223	Interviewing I▲-	<u>3</u>	
		9	
Second Semester			
ENG221	Technical Report Writing	3	ENG124
ENG125	Technical Editing and Layout ▲+	3	ENG124
ENG227	Writing for Media	<u>3</u>	ENG124
		9	
	TOTAL CREDITS	18	

<sup>^</sup> Based upon SSC placement score.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.



# CAREER ENHANCEMENT CERTIFICATE GRANT WRITING

2021 Catalog

Effective Summer 2020

1203

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

English and Modern Languages Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG231	College Composition II	3	ENG124	
ENG221	Technical Report Writing	3	ENG124	
ENG229	Grant Writing	3	ENG124	
ENG125	Technical Editing and Layout ▲+	3	ENG124	
ENG126	Technical Grammar and Style ▲+	3	ENG124	
	TOTAL CREDIT HOURS	18		

# STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

First Semester		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3 3	Co-ENG024 or Co-ENG011
		3	or Proficiency
Second Semester			
ENG221	Technical Report Writing	3	ENG124
ENG231	College Composition II	3	ENG124
ENG125	Technical Editing and Layout ▲+	3	ENG124
ENG126	Technical Grammar and Style ▲+	<u>3</u>	ENG124
		9	
Third Semester			
ENG229	Grant Writing	<u>3</u>	ENG124
		3	
	TOTAL CREDITS	18	
	IOIAL CREDIIS		

<sup>^</sup>Based upon SSC placement score.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

# **MATH AND SCIENCE**



In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately. To keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions or any other statements contained in this catalog at the discretion of the College or its Board of Trustees.



# ASSOCIATE OF SCIENCE MATHEMATICS

2021 Catalog

Effective Summer 2020

**7500** 

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

# Arts and Sciences Division

# Mathematics Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXPE	RIENCE			
SSC101	Student Success Seminar^^	1	Take first semester	
WRITTEN & ORAI	COMMUNICATION: 6 credit hours minimum			
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG231	College Composition II	3	ENG124	
COM122	Interpersonal Communication	3		
COM123	Small Group Communication	3	IDS102 or Proficiency	
COM125	Introduction to Communication Theory^▲-	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
SOCIAL & BEHAV	IORAL SCIENCES: 6 credit hours minimum			
PSC121	Political Science	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity (required)	3		
BUS122	Basic Economics^	3	IDS102 or Proficiency	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
ARTS & HUMANIT	TIES: 6 credit hours minimum			
ENG233	British Literature I: Med to 1785	3	ENG124	
ENG234	British Literature II: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
PHL122	Ethics	3		
NATURAL SCIENC	CES: 7 credit hours minimum (1 lab course require	d)		
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO126	Science, Energy, & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO129	Meteorology (lab)	3		

<sup>^</sup>Based upon SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

A Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM101	Introduction to Chemistry^ \	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab)^▲	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)^▲	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
PHY105	Astronomy (lab)	4		
PHY221	General Physics I with Calculus (lab) ▲-	5	MTH223 and Co-MTH224	
PHY222	General Physics II with Calculus (lab) ▲+	5	PHY221 and MTH224 and Co-MTH225	
CORE MATHEMA	TICS & DATA ANALYSIS COURSES: 26 credit hou	ırs required		
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 <b>or</b> Proficiency	
MTH214	Discrete Mathematics^	3	MTH125 or MTH135 or Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
MTH224	Analytic Geometry and Calculus II	4	MTH223	
MTH225	Analytic Geometry and Calculus III	4	MTH224	
MTH226	Linear Algebra▲-	3	MTH224	
MTH227	Ordinary Differential Equations▲+	3	MTH224	
ADDITIONAL ELE TO COMPLETE DI	CTIVES FROM THIS SHEET EGREE <sup>5</sup>	8-9	Check for prerequisites	
	TOTAL CREDIT HOURS	61-65		

<sup>^</sup>Based upon SSC placement scores.

Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

5 Additional Electives: Any courses listed on this sheet not already being used to fulfill another requirement.

4-Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

# FULL-TIME STUDENT ADVISING NOTES

# **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MTH135	Precalculus^- A student may take	5	MTH025 or Proficiency
	MTH125 (College Algebra) and MTH130		
	(Trigonometry) over two semesters to		
ENG104	satisfy this requirement.	2	Co-ENG024 or Co-ENG011
ENG124	College Composition <sup>^</sup> (required)	3	or Proficiency
Social & Behavioral Sc	viences Flective 2	3	Check for prerequisite
Arts & Humanities Elec		<u>3</u>	Check for prerequisite
mis & manufactures Lies	cure	15	Check for prerequisite
Second Semester		13	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 <b>or</b> (MTH125 and MTH130)
111111111111111111111111111111111111111	That yet Scometry and Saleards 1	•	or Proficiency
SOC225	Cultural Diversity ( <b>required</b> )	3	<i>01 1101101010</i>
MTH214	Discrete Mathematics <sup>^</sup>	3	MTH125 or MTH135 or Proficiency
Arts & Humanities Elec		3	Check for prerequisite
Written & Oral Commi		<u>3</u>	Check for prerequisite
		16	J. T. T.
Third Semester			
MTH224	Analytic Geometry and Calculus II	4	MTH223
	, , ,	$\frac{4}{4}$	
Fourth Semester			
MTH225	Analytic Geometry and Calculus III	4	MTH224
MTH226	Linear Algebra ▲-	3	MTH224
Natural Sciences Electi	ive ▲ ¹	4-5	Check for prerequisite
Additional Elective 5		<u>3</u>	Check for prerequisite
		14-15	
Fifth Semester			
MTH227	Ordinary Differential Equations ▲+	3	MTH224
Additional Elective <sup>5</sup>		3-4	Check for prerequisite
Natural Sciences Electi	ive 🖈 1	3-5	Check for prerequisite
Additional Elective <sup>5</sup>		<u>3</u>	Check for prerequisite
		12-15	
	TOTAL CREDITS	61-65	

<sup>^</sup> Based upon SSC placement scores.

<sup>^^</sup> To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> Natural Sciences Electives: BIO121, BIO122, BIO124, BIO126, BIO127, BIO129, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101, PHY105, PHY121, PHY122, PHY221, PHY222

<sup>&</sup>lt;sup>2</sup> Social & Behavioral Sciences Electives: BUS122, BUS221, BUS222, PSC121, PSY121, SOC121

<sup>&</sup>lt;sup>3</sup> Written & Oral Communication Elective: COM121, COM122, COM123, COM125, ENG221, ENG230, ENG231

<sup>&</sup>lt;sup>4</sup> Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122

<sup>&</sup>lt;sup>5</sup> Additional Electives: Any courses listed on this sheet not already being used to fulfill another requirement.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

# Stark State COLLEGE

# ASSOCIATE OF SCIENCE

# MATHEMATICS - PRE-ACTUARIAL MATHEMATICS MAJOR

2021 Catalog

Effective Summer 2020

7501

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

# Arts and Sciences Division

# Mathematics Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EX	PERIENCE			
SSC101	Student Success Seminar^^	1	Take first semester	
WRITTEN & OR	RAL COMMUNICATION: 6 credit hours minin	num		
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG231	College Composition II	3	ENG124	
COM122	Interpersonal Communication	3		
COM123	Small Group Communication	3	IDS102 or Proficiency	
COM125	Introduction to Communication Theory^▲-	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
SOCIAL & BEH	AVIORAL SCIENCES: 9 credit hours required	l		
SOC225	Cultural Diversity	3		
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
ARTS & HUMAN	NITIES: 6 credit hours minimum	'		1
ENG233	British Literature: Med to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
PHL122	Ethics	3		
NATURAL SCIE	NCES: 7 credit hours minimum (1 lab course r	equired)		
BIO121	Anatomy and Physiology I (lab)^▲	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO126	Science, Energy, and the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO129	Meteorology (lab)	3		
BIO141	General Biology I (lab)	4		

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

A Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

Effective Summer 2020

# MATHEMATICS - PRE-ACTUARIAL MATHEMATICS MAJOR

**7501** 

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO142	General Biology II (lab) ▲+	4		
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM101	Introduction to Chemistry^▲	4	(MTH022 <b>or</b> MTH023 <b>or</b> Proficiency) <b>or</b> MTH105 <b>or</b> MTH107 <b>or</b> Proficiency	
CHM121	Gen., Org., and Bio Chemistry I (lab)^▲	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM122	Gen., Org., and Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)^▲	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
PHY101	Principles of Physics (lab)^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra <sup>^</sup> (lab)	4	MTH135 or (MTH125 and MTH130) or Proficiency	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
PHY105	Astronomy (lab)	4		
PHY221	General Physics I with Calculus (lab) ▲-	5	MTH223 and Co-MTH224	
PHY222	General Physics II with Calculus (lab) ▲+	5	PHY221 and MTH224 and Co- MTH225	
CORE MATHEMA	TICS & DATA ANALYSIS COURSES: 32 credit hou	ırs required		
BUS124	Business Analysis with Algebra	3	(MTH022 <b>or</b> Proficiency) <b>and</b> (IDS102 <b>or</b> Proficiency)	
ACC132	Financial Accounting	4	BUS124	
AOT226	Spreadsheets Microsoft Excel^	3	ITD100 or Proficiency	
MTH124	Statistics^ (required)	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 <b>or</b> Proficiency	
MTH214	Discrete Mathematics^	3	MTH125 or MTH135 or Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
MTH224	Analytic Geometry and Calculus II	4	MTH223	
MTH225	Analytic Geometry and Calculus III	4	MTH224	
MTH226	Linear Algebra ▲-	3	MTH224	
MTH227	Ordinary Differential Equations ▲+	3	MTH224	
	TOTAL CREDIT HOURS	60-65		

<sup>^</sup> Based upon SSC placement scores.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

# 2021 Catalog

Effective Summer 2020

# MATHEMATICS – PRE-ACTUARIAL MATHEMATICS MAJOR

**7501** 

# FULL-TIME STUDENT ADVISING NOTES

# **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
MTH135	Precalculus^- A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy	5	MTH025 or Proficiency
ENG124	this requirement. College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency
BUS124	Business Analysis with Algebra	3	(MTH022 <b>or</b> Proficiency) <b>and</b> (IDS102 <b>or</b> Proficiency)
BUS221	Microeconomics^	<u>3</u>	IDS102 or Proficiency
		15	
Second Semester			
MTH214	Discrete Mathematics^	3	MTH125 or MTH135 or Proficiency
MTH223	Analytic Geometry and Calculus I^	4	MTH135 or (MTH125 and MTH130) or Proficiency
ACC132	Financial Accounting	4	BUS124
BUS222	Macroeconomics^	3	IDS102 or Proficiency
Arts & Humanities Elective <sup>4</sup>		<u>3</u>	Check for prerequisites
		17	
Third Semester			
MTH224	Analytic Geometry and Calculus II	4	MTH223
Written & Oral Com	munication Elective <sup>2</sup>	3	Check for prerequisites
Natural Sciences Ele	ective 👗 1	3-5	Check for prerequisites
Arts & Humanities E	Elective <sup>4</sup>	<u>3</u>	Check for prerequisites
		13-15	
Fourth Semester			
MTH124	Statistics (required)	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency
MTH226	Linear Algebra ▲-	3	MTH224
SOC225	Cultural Diversity	3	
Core Mathematics as	nd Data Analysis Elective <sup>3</sup>	3-4	Check for prerequisites
Natural Sciences Ele	ective ♣ ¹	<u>3-5</u>	Check for prerequisites
		15-18	
	TOTAL CREDITS	60-65	

<sup>^</sup>Based upon SSC placement score.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup>Natural Sciences Electives: BIO121, BIO122, BIO124, BIO126, BIO127, BIO129, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101, PHY105, PHY121, PHY122, PHY221, PHY222

<sup>&</sup>lt;sup>2</sup>Written & Oral Communication Elective: COM121, COM122, COM123, COM125, ENG221, ENG230, ENG231

 $<sup>\</sup>underline{^3Core\ Mathematics\ and\ Data\ Analysis\ Elective}\text{:}\ AOT226,\ MTH225,\ MTH227$ 

 $<sup>^4\</sup>underline{Arts\ \&\ Humanities\ Electives}: ENG 233, ENG 234, ENG 236, ENG 237, HIS 121, HIS 122, HIS 221, HIS 222, PHL 122, HIS 221, HIS 221, HIS 222, PHL 122, HIS 222, HIS 2222, HI$ 

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.



# ASSOCIATE OF SCIENCE CHEMISTRY

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

2021 Catalog

Effective Summer 2020

**1260** 

Arts and Sciences Division

Chemistry Department

Arts and Sciences Division		Chemistry Department			
Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year	
FRESHMAN EX	PERIENCE				
SSC101	Student Success Seminar^^	1	Take first semester		
WRITTEN & OR	AL COMMUNICATION:				
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency		
SOCIAL & BEH	AVIORAL SCIENCES: 6 credit hours minimum				
BUS122	Basic Economics^	3	IDS102 or Proficiency		
BUS221	Microeconomics^	3	IDS102 or Proficiency		
BUS222	Macroeconomics^	3	IDS102 or Proficiency		
CJS121	Introduction to Criminal Justice	3			
PSC121	Political Science	3			
PSY121	General Psychology^	3	IDS102 or Proficiency		
PSY124	Industrial/Organizational Psychology	3			
PSY220	Social Psychology	3			
SOC121	Sociology^	3	IDS102 or Proficiency		
SOC122	Society and Technology	3			
SOC225	Cultural Diversity (required)	3			
ARTS & HUMAN	NITIES: 6 credit hours minimum				
ENG233	British Literature: Med to 1785	3	ENG124		
ENG234	British Literature: 1785 to Present	3	ENG124		
ENG236	American Literature: Colonial to 1865	3	ENG124		
ENG237	American Literature: 1865 to Present	3	ENG124		
HIS121	U.S. History I to 1877	3			
HIS122	U.S. History II from 1877	3			
HIS221	World Civilization to 17th Century	3			
HIS222	World Civilization from 17 <sup>th</sup> Century	3			
PHL122	Ethics (recommended)	3			
MATHEMATICS	S: 8 credit hours minimum				
MTH135	Precalculus <sup>^</sup> – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency		
MTH223	Analytic Geometry and Calculus I^	4	MTH135		
MTH224	Analytic Geometry and Calculus II	4	MTH223		
MTH225	Analytic Geometry and Calculus III*	4	MTH224		

<sup>^</sup> Based on SSC placement scores

<sup>^^</sup> To promote student success, this course should be taken in the first semester

<sup>\*</sup>Required if also taking PHY222

2021 Catalog Effective Summer 2020	CHEMISTRY			1260	
NATURAL SCIENCES: 7-10 credit hours required. Choose one of the following.					
Pre – Bac	helor of Science				
PHY221	General Physics I with Calculus (lab) ▲-	5	Pre-MTH223 and Co-MTH224		
PHY222	General Physics II with Calculus (lab) ▲+	5	PHY221 and MTH224 and Co-MTH225		
Pre – Bac	helor of Arts				
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency		
PHY122	College Physics II with Algebra (lab)	4	PHY121		
Forensic	S				
CHM105	Introduction to Forensic Science (lab)	3			
CHM205	Forensic Chemistry (lab)	4	CHM105 or CHM121 or CHM141		
Biochemi	stry				
CHM243	Biochemistry I▲-	3	CHM121 or CHM141		
CHM244	Biochemistry II ▲+	3	CHM243		
BIO241	General Genetics (lab) ▲-	4	BIO141		
	<u> </u>		Die i i i		
CONCENTRATIC	ON CORE: 20 credit hours required.	ı	(CIDM101 D.C.)		
CHM141	General Chemistry I (lab)	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)		
CHM142	General Chemistry II (lab) ▲+	5	CHM141		
CHM241	Organic Chemistry I (lab) A-	5	CHM142		
CHM242	Organic Chemistry II (lab) 🛕+	5	CHM241		
ELECTIVES – Selected tredit hours.	ect additional credits from mathematics, natural s	ciences, o	r electives categories to complete th	ne total of 60-65	
BIO141	General Biology I (lab)**	4			
BIO142	General Biology II (lab) ▲+	4			
GEO141	Physical Geology (lab)	4			
PHY105	Astronomy (lab)	4			
SSC201 SCI273	Study Away: Experiential Learning Special Topics in Science	3	Sophomore in Program		
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency		
MTH227	Ordinary Differential Equations	4	MTH224		
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) <b>and</b> (ITD100 or Proficiency)		
COM121	Effective Speaking	3			
COM122	Interpersonal Communication	3			
ENG221	Technical Report Writing	3	ENG124		
ENG231	College Composition II	3	ENG124		
PET131	Corrosion Basics	3	TED 100 D C		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency		
	TOTAL CREDIT HOURS	60-65			

<sup>^</sup> Based on SSC placement scores

\*\*Required if taking BIO241

▲-Fall only courses. Please see your academic advisor for availability.

▲+Spring only courses. Please see your academic advisor for availability.

# FULL-TIME STUDENT ADVISING NOTES

# **Academic Advising**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

# Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time students who plan to finish in two years.

# Elective Additional Credit

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
CHM141	General Chemistry I (lab)	5	(CHM101 or Proficiency) or
			(MTH024 or MTH025 or
			Proficiency)
SOC225	Cultural Diversity (required)	3 3	
ENG124	College Composition <sup>^</sup>	3	Co-ENG024 or Co-ENG011
			or Proficiency
Mathematics Elective <sup>3</sup>		<u>4</u>	Check for prerequisite
		16	
Second Semester			
CHM142	General Chemistry II (lab) ▲+	5	CHM141
Social & Behavioral Sc		3	Check for prerequisite
Arts & Humanities Elec	ctive <sup>2</sup>	3	Check for prerequisite
Mathematics Elective <sup>3</sup>		<u>4</u>	Check for prerequisite
		15	
Third Semester			
CHM241	Organic Chemistry I (lab) ▲-	5	CHM142
Natural Sciences Option	$ns^4$	3-5	Check for prerequisite
Arts & Humanities Elec	ctive <sup>2</sup>	3	Check for prerequisite
Elective 3,5		<u>3-4</u>	Check for prerequisite
		14-17	
Fourth Semester			
CHM242	Organic Chemistry II (lab) ▲+	5	CHM241
Natural Sciences Option	ns <sup>4</sup>	4-7	Check for prerequisite
Elective(s) $^{5,6}$		<u>6-7</u>	Check for prerequisite
		15-17	
	TOTAL CREDITS	60-65	

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup> Social & Behavioral Science Elective: BUS122, BUS221, BUS222, CJS121, PSC121, PSY121, PSY124, PSY220, SOC121, SOC122

<sup>&</sup>lt;sup>2</sup> Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended)

<sup>&</sup>lt;sup>3</sup> Mathematics Electives: MTH135, MTH223, MTH224, MTH225\*

<sup>&</sup>lt;sup>4</sup> Natural Sciences Options:: (PHY221 and PHY222) or (CHM243, CHM244 and BIO241) or (CHM105 and CHM205) or (PHY121 and PHY122)

<sup>&</sup>lt;sup>5</sup><u>Electives</u>: BIO141\*\*, BIO142, COM121, COM122, CSE122, ENG221, ENG231, GEO141, ITD122, MTH124, MTH227, PET131, PHY105, SSC201, SCI273

<sup>&</sup>lt;sup>6</sup> Select additional courses to complete the total of 60-65 credit hours.

<sup>\*</sup> Required if also taking PHY222

<sup>\*\*</sup> Required if also taking BIO241

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

# Stark State COLLEGE MAP

# ASSOCIATE OF SCIENCE BIOLOGY

2021 Catalog

Effective Summer 2020

**1270** 

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-06.

Arts and Sciences Division

Biology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
				Sem./ Tear
FRESHMAN EXI	PERIENCE	1		
SSC101	Student Success Seminar^^	1	Take first semester	
WRITTEN AND	ORAL COMMUNICATION: 6 credit hours min	imum		
ENG124	College Composition^ (required)	3	ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG231	College Composition II	3	ENG124	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
SOCIAL & BEHA	AVIORAL SCIENCES: 6 credit hours minimum			
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity (required)	3		
BUS122	Basic Economics^	3	IDS102 or Proficiency	
ARTS & HUMAN	NITIES: 6 credit hours minimum			
ENG233	British Literature: Med to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
PHL122	Ethics (recommended)	3		
MATHEMATICS	: 4 credit hours minimum			
MTH125	College Algebra^	4	MTH023 or Pre-Co-MTH025 or Proficiency	
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	

<sup>^</sup> Based on SSC placement scores

<sup>^^</sup> To promote student success, this course should be taken in the first semester

*	,		
2021 Catalog			
2021 Catalog			

NATURAL SCII	ENCES: 18 credit hours required		
BIO141	General Biology I (lab)	4	
BIO142	General Biology II (lab) ▲+	4	
CHM141	General Chemistry I (lab) ▲	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)
CHM142	General Chemistry II (lab) ▲+	5	CHM141
BIOLOGY COR	E ELECTIVES: 4-8 credit hours minimum as need	ed to meet	total credit hour requirement
BIO200	Ecology (lab) ▲-	4	BIO142
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141
BIO241	General Genetics (lab) ▲-	4	BIO141
BIO242	Cell and Molecular Biology (lab) ▲+	4	BIO141
CONCENTRAT	ION GROUP ELECTIVES: Choose from one of the	e following	g groups
CHM241	Organic Chemistry I (lab) ▲-	5	CHM142
CHM242	Organic Chemistry II (lab) ▲+	5	CHM241
OR			
CHM243	Biochemistry I▲-	3	CHM121 or CHM141
CHM244	Biochemistry II▲+	3	CHM243
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency
OR			
CHM105	Introduction to Forensic Science (lab)	3	
CHM205	Forensic Chemistry (lab)	4	CHM105 or CHM121 or CHM141
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency
OR			1
PHY121	College Physics I with Algebra (lab)^	4	MTH135 or (MTH125 and MTH130) or Proficiency
PHY122	College Physics II with Algebra (lab) ▲+	4	PHY121
CAPSTONE			
SCI273	Special Topics in Science	3	Sophomore in program
	TOTAL CREDIT HOURS (60 credits minimum)	60-63	

<sup>^</sup> Based on SSC placement scores

<sup>▲\*</sup>Summer only courses. Please see your academic advisor for availability.

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<sup>▲</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability. ▲+Spring only courses. Please see your academic advisor for availability.

# FULL-TIME STUDENT ADVISING NOTES

# Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time students who plan to finish in two years.

### Elective Additional Credit

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at <a href="http://www.transferology.com">http://www.transferology.com</a> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester	,	Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
BIO141	General Biology I (lab)	4	
CHM141	General Chemistry I <sup>^</sup> (lab) ▲	5	(CHM101 or Proficiency) or
			(MTH024 or MTH025 or
			Proficiency)
Mathematics Elective	4	<u>4-5</u>	Check for prerequisite
		14-15	
Second Semester			
BIO142	General Biology II (lab) ▲+	4	
CHM142	General Chemistry II (lab) ▲+	5	CHM141
ENG124	College Composition <sup>^</sup> ( <b>Required</b> )	3	ENG011 or Proficiency
Social & Behavioral	Science Elective <sup>2</sup>	$\frac{3}{15}$	Check for prerequisite
		15	
<u>Summer</u>			
Written & Oral Comm		3	Check for prerequisite
Concentration Group	Elective <sup>6</sup>	3-5 <b>6-8</b>	Check for prerequisite
		6-8	
Third Semester			
Biology Core Elective		4	Check for prerequisite
SOC225	Cultural Diversity ( <b>Required</b> )	3	
Arts & Humanities El		3	Check for prerequisite
Concentration Group	Elective <sup>6</sup>	<u>3-5</u>	Check for prerequisite
		13-15	
Fourth Semester			
SCI273	Special Topics in Science	3	Sophomore in program
Arts & Humanities El		3	Check for prerequisite
	e <sup>5</sup> OR Mathematics Elective <sup>4</sup>	4	Check for prerequisite
Concentration Group	Elective <sup>6</sup>	<u>3-5</u>	Check for prerequisite
		13-15	
	TOTAL CREDITS	60-63	

<sup>^</sup> Based on SSC placement scores

<sup>^^</sup> To promote student success, this course should be taken in the first semester

<sup>♣</sup> Because of strong emphasis on science in this major, applicants must have successfully completed Chemistry and Biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>&</sup>lt;sup>1</sup> Written & Oral Communication Elective: COM121, COM122, ENG221, ENG231

<sup>&</sup>lt;sup>2</sup> Social & Behavioral Sciences Elective: PSY121, SOC121, BUS122

<sup>&</sup>lt;sup>3</sup> Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122 (recommended)

<sup>&</sup>lt;sup>4</sup> Mathematics Elective: MTH125 or MTH135 or MTH223

<sup>&</sup>lt;sup>5</sup> Biology Core Elective: BIO200, BIO221, BIO241, BIO242

<sup>&</sup>lt;sup>6</sup> Concentration Group Electives: (CHM241 and CHM242) or (CHM243, CHM244, MTH124) (CHM105, CHM205, MTH124) or (PHY121 and PHY122)

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

# Stark State COLLEGE WY ACADEMIC PLAN

#### ASSOCIATE OF SCIENCE

# PRE-MEDICAL PROFESSIONAL CONCENTRATION (Pre-Pharmacy, Pre-Medicine, Pre-Dentistry, Pre-Veterinary)

2021 Catalog

Effective Summer 2020

1280

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

#### Arts and Sciences Division

### Biology Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year		
FRESHMAN EXPERIENCE						
SSC101	Student Success Seminar^^	1	Take first semester			
WRITTEN & ORA	L COMMUNICATION: 6 credit hours minim	um				
ENG124	College Composition^ (required)	3	Co-ENG024 or Co-ENG011 or Proficiency			
ENG231	College Composition II	3	ENG124			
COM121	Effective Speaking	3				
COM122	Interpersonal Communication	3				
SOCIAL & BEHA	VIORAL SCIENCES: 6 credit hours minimum					
BUS122	Basic Economics^	3	IDS102 or Proficiency			
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency			
SOC121	Sociology^	3	IDS102 or Proficiency			
SOC225	Cultural Diversity (required)	3				
ARTS & HUMANI	TIES: 6 credit hours minimum					
ENG233	British Literature: Med to 1785	3	ENG124			
ENG234	British Literature: 1785 to Present	3	ENG124			
ENG236	American Literature: Colonial to 1865	3	ENG124			
ENG237	American Literature: 1865 to Present	3	ENG124			
HIS121	U.S. History I to 1877	3				
HIS122	U.S. History II from 1877	3				
PHL122	Ethics (recommended)	3				
<b>MATHEMATICS:</b>	5 credit hours minimum					
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement. (required)	5	MTH025 or Proficiency			
NATURAL SCIEN	CES: 13 credit hours minimum (1 lab course re	equired)				
BIO141	General Biology I (lab)	4				
BIO142	General Biology II (lab) ▲+	4				
CHM141	General Chemistry I (lab)^▲	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)			
	GENERAL EDUCATION CREDIT TOTAL	37				

<sup>^</sup>Based upon SSC placement score

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry in high school. Students who did not complete chemistry in high school, or who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

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PRE-MEDICAL PROFESSIONAL CONCENTRATION (Pre-Pharmacy, Pre-Medicine, Pre-Dentistry, Pre-Veterinary)

**1280** 

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year			
CONCENTRATIO	CONCENTRATION CORE						
CHM142	General Chemistry II (lab)	5	CHM141				
CHM241	Organic Chemistry I (lab) A-	5	CHM142				
CHM242	Organic Chemistry II (lab) ▲+	5	CHM241				
MTH124	Statistics^	3	MTH022 or Pre-Co-MTH024 or Proficiency				
MTH223	Analytic Geometry – Calculus I^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency				
CONCENTRATIO	ON ELECTIVES – Select additional courses to co	mplete the	total of 62 - 63 credit hours*				
BIO121	Anatomy and Physiology I	4	BIO101 or Proficiency				
BIO122	Anatomy and Physiology II	4	BIO121 or BIO123				
BIO123	Principles of Human Structure and Function (lab)	5	BIO101 or Proficiency				
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141				
BIO241	General Genetics (lab) ▲-	4	BIO141				
BIO242	Cell & Molecular Biology (lab) ▲+	4	BIO141				
CHM243	Biochemistry I▲-	3	CHM141				
CHM244	Biochemistry II▲+	3	CHM243				
PHY101	Principles of Physics (lab) ^	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and IDS102 or Proficiency				
PHY121	College Physics I with Algebra (lab)	4	MTH135 or (MTH125 and MTH130) or Proficiency				
PHY122	College Physics II with Algebra (lab) ▲*	4	PHY121				
SCI273	Special Topics in Science	3	Sophomore in Program				
	TOTAL CREDIT HOURS	62-63					

<sup>^</sup>Based upon SSC placement score

<sup>\*</sup>Please obtain the complete list of entrance requirements for the professional medical school(s) to which you would like to apply and consult your academic advisor to determine what electives

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

▲\*Summer only courses. Please see your academic advisory for availability.

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## PRE-MEDICAL PROFESSIONAL CONCENTRATION (Pre-Pharmacy, Pre-Medicine, Pre-Dentistry, Pre-Veterinary)

**1280** 

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing on the next page provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

#### **Elective Additional Credit**

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit Transferology at http://www.transferology.com to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester SSC101	Student Success Seminar^^	Credit Hours	<u>Pre- and Co-requisites</u> Take first semester
BIO141 CHM141	General Biology I (lab) General Chemistry I (lab) <sup>^</sup> ▲	4 5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	<u>5</u>	MTH025 <b>or</b> Proficiency
		15	
Second Semester BIO142	Consent Distance H (lab.) A	4	
CHM142	General Biology II (lab) ▲+ General Chemistry II (lab)	4 5	CHM141
ENG124	College Composition (required)	3	Co-ENG024 or Co-ENG011 or Proficiency
Arts & Humanities Elective <sup>3</sup>		<u>3</u>	Check for prerequisite
		15	
Third Semester (Summer)			
SOC225	Cultural Diversity (required)	3	
Arts & Humanities Elective <sup>3</sup>		<u>3</u>	Check for prerequisite
		6	
Fourth Semester			
CHM241	Organic Chemistry I (lab) -	5	CHM142
MTH223	Analytic Geometry – Calculus I^	4	MTH135 or (MTH125 and MTH130) or Proficiency
Written and Oral Communica	ation Elective <sup>1</sup>	<u>3</u>	Check for prerequisite
		12	
<u>Fifth Semester</u>		_	
CHM242	Organic Chemistry II (lab) ▲+	5	CHM241
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency
Social and Behavioral Science	res Elective <sup>2</sup>	3	Check for prerequisite
Concentration Elective <sup>4*</sup>		<u>3 - 4</u>	Check for prerequisite
		14-15	
	TOTAL CREDITS	62-63	

<sup>^</sup>Based upon SSC placement score

<sup>\*\*</sup>To promote student success, this course should be taken in the first semester

A Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry in high school. Students who did not complete chemistry in high school, or who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

1 Written & Oral Communication Elective: COM121, COM122, ENG231

<sup>&</sup>lt;sup>2</sup> Social and Behavioral Sciences Electives: BUS122, PSY121, SOC121

<sup>&</sup>lt;sup>3</sup> Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122 (recommended)

<sup>&</sup>lt;sup>4</sup>Concentration Electives: BIO121, BIO122, BIO123, BIO221, BIO241, BIO242, CHM243, CHM244, PHY101, PHY121, PHY122, SCI273

<sup>\*</sup> Please obtain the complete list of entrance requirements for the professional medical school(s) to which you would like to apply and consult your academic advisor to determine what electives to take.

- Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.



# ASSOCIATE OF SCIENCE - GENERAL

2021 Catalog

Effective Summer 2020

7106

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

#### Arts and Sciences Division

#### Physics Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed	
Course Number	Course Title	Credits	Tre- and Co-Requisites	Sem./Year	
FRESHMAN EXPERIENCE					
SSC101	Student Success Seminar^^	1	Take first semester		
COMPUTER AP	PLICATIONS				
ITD122	Computer Applications for Professionals^ (required)	3	ITD100 or Proficiency		
WRITTEN & OF	RAL COMMUNICATION: 6 credit hours minis	mum			
ENG124	College Composition <sup>^</sup> ( <b>required</b> )	3	Co-ENG024 or Co-ENG011 or Proficiency		
ENG221	Technical Report Writing	3	ENG124		
ENG230	Business Communication	3	ENG124		
ENG231	College Composition II	3	ENG124		
ENG235	Introduction to Shakespeare ▲+	3	ENG124		
ENG241	Major Modern Writers ▲+	3	ENG124		
COM121	Effective Speaking	3			
COM122	Interpersonal Communication	3			
COM123	Small Group Communication	3	IDS102 or Proficiency		
COM125	Introduction to Communication Theory^▲-	3	IDS102 or Proficiency		
SOCIAL & BEH	AVIORAL SCIENCES: 9 credit hours minimum	m			
PSC121	Political Science	3			
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency		
PSY123	Human Growth & Development	3	PSY121		
PSY124	Industrial/Organizational Psychology	3			
PSY220	Social Psychology	3	PSY121		
PSY221	Abnormal Psychology	3	PSY121		
BUS122	Basic Economics^	3	IDS102 or Proficiency		
BUS221	Microeconomics^	3	IDS102 or Proficiency		
BUS222	Macroeconomics^	3	IDS102 or Proficiency		
SOC121	Sociology^	3	IDS102 or Proficiency		
SOC122	Society and Technology	3			
SOC123	Dynamics of the Family	3			
SOC221	Social Problems	3	SOC121		
SOC225	Cultural Diversity ( <b>required</b> )	3			

<sup>^</sup> Based on SSC placement scores

<sup>^^</sup> To promote student success, this course should be taken in the first semester

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

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# **ASSOCIATE OF SCIENCE - GENERAL**

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ARTS & HUMANITI	ES: 6 credit hours minimum	•		
ENG233	British Literature: Med to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
PHL122	Ethics	3		
NATURAL SCIENCE	ES & MATHEMATICS			
Natural Sciences: 12	credit hours minimum (1 lab course required)			
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO121	Anatomy and Physiology I (lab)	4	BIO101 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123	
BIO126	Science, Energy, & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO128	Climate Studies (lab) ▲+	3		
BIO129	Meteorology (lab)	3		
BIO130	Ocean Studies (lab) A-	3		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
BIO200	Ecology (lab) ▲-	4	BIO142	
BIO241	General Genetics (lab)	4	BIO141	
BIO242	Cell & Molecular Biology (lab) ▲+	4	BIO141	
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM100	Exploring Science and Technology (lab)	4	VI BIOTIT	
CHM101	Introduction to Chemistry^	4	(MTH022 or MTH023 or Proficiency) or MTH105 or MTH107 or Proficiency	
CHM105	Introduction to Forensic Science(lab)	3	Í	
CHM205	Forensic Chemistry(lab)	4	CHM105 or CHM121 or CHM141	
CHM121	Gen., Org., & Bio Chemistry I (lab)	4	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107	
CHM122	Gen., Org., & Bio Chemistry II (lab) ▲+	4	CHM121	
CHM141	General Chemistry I (lab)	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)	
CHM142	General Chemistry II (lab)	5	CHM141	

<sup>^</sup> Based on SSC placement scores

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability. ▲+Spring only courses. Please see your academic advisor for availability.

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# **ASSOCIATE OF SCIENCE - GENERAL**

**7106** 

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CHM241	Organic Chemistry I (lab) A-	5	CHM142	
CHM242	Organic Chemistry II (lab) ▲+	5	CHM241	
GEO141	Physical Geology (lab)	4		
PHY101	Principles of Physics^ (lab)	4	(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 and (IDS102 or Proficiency)	
PHY105	Astronomy (lab)	4		
PHY121	College Physics I with Algebra (lab)^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
PHY122	College Physics II with Algebra (lab) ▲*	4	PHY121	
PHY221	General Physics I with Calculus (lab) ▲-	5	MTH223 <b>and</b> Co-MTH224	
PHY222	General Physics II with Calculus (lab) ▲+	5	PHY221 <b>and</b> MTH224 <b>and</b> Co-MTH225	
Mathematics: 3-5	credit hours minimum			
MTH124	Statistics^	3	MTH022 <b>or</b> Pre-Co-MTH024 <b>or</b> Proficiency	
MTH125	College Algebra^	4	MTH023 <b>or</b> Pre-Co-MTH025 <b>or</b> Proficiency	
MTH130	Trigonometry	3	MTH125	
MTH135	Precalculus^- A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 <b>or</b> Proficiency	
MTH221	Concepts of Calculus^▲+	3	MTH135	
MTH223	Analytic Geometry and Calculus I^	4	MTH135	
MTH224	Analytic Geometry and Calculus II	4	MTH223	
MTH225	Analytic Geometry and Calculus III	3	MTH224	
MTH226	Linear Algebra ▲ -	3	MTH224	
MTH227	Ordinary Differential Equations ▲+	3	MTH224	
ADDITIONAL EL	ADDITIONAL ELECTIVES TO COMPLETE DEGREE*			
	TOTAL CREDIT HOURS (60 credit minimum)	60-65		

<sup>^</sup> Based on SSC placement scores

<sup>\*</sup>Additional Electives: Choose from previous pages or the additional electives list shown on the next page.

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.

<sup>▲\*</sup> Summer only courses. Please see your academic for availability.

Effective Summer 2020

### **ASSOCIATE OF SCIENCE - GENERAL**

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#### ASSOCIATE OF SCIENCE ELECTIVES

The Associate of Science Degree requires a minimum of 60 credit hours. Students should select a minimum of 40 credit hours from the previous pages. They must further choose 20-25 elective credit hours from the previous pages or the list below to reach a minimum of 60 credit hours. Please note, courses on the previous pages are OTM and/or TAG with the exception of SSC101 and IDS122; the listing on this page may contain OTM or TAG courses. Please see your academic advisor for assistance with course selection.

ADDITIONAL ARTS & SCIENCES COURSES				
Biology	Social and Behavioral Sciences			
BIO123 Principles of Human Structure & Function (lab)# (5)	GER121 Introduction to Gerontology (3)			
BIO124 Human Diseases (3)	GER122 Psychosocial Aspects of Aging (3)			
BIO125 Medical Terminology (3)	PSC122 Introduction to Law and the Legal System (3)			
BIO222 Pharmacology (3)	PSC221 State and Local Government (3)			
	PSC222 Public Policy (3)			
Chemistry	PSY222 Psychological Aspects of Therapy (3)			
CHM243 Biochemistry I (3) ▲-	SOC222 Juvenile Delinquency (3)			
CHM244 Biochemistry II (3) ▲+				
	Computational Science			
English and Modern Languages	CST120 Computational Science Methods (3)			
ENG125 Technical Editing & Layout (3) ▲+	CST121 Modeling & Simulation (lab) (3)			
ENG227 Writing for Media (3)	CST221 Computational Biology (4)			
ENG228 Writing for the Web (3) ▲-				
ENG229 Grant Writing (3)	Sciences			
ENG239 Film Appreciation (3)	SCI273 Special Topics in Science (3)			
ENG240 Women's Literature				
SPN100 Elementary Spanish I (4)	Communications			
SPN200 Elementary Spanish II (4) ▲+	COM223 Interviewing (3) ▲-			
General				
SSC201 Study Away: Experiential Learning				

#BIO121 and BIO122 may be substituted for BIO123.

- ▲-Fall only courses. Please see your academic advisor for availability.
- ▲+Spring only courses. Please see your academic advisor for availability.

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester to discuss their academic progress and plans as well as career plans.

#### Elective Additional Credit

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit the website of the university and program to which you are transferring for their course requirements and https://www.transferology.com/ to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and/or TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.



# ASSOCIATE OF SCIENCE PHYSICS

2021 Catalog

Effective Summer 2020

**7107** 

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

Arts and Sciences Division

Physics Department

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EX	PERIENCE			
SSC101	Student Success Seminar^^	1	Take first semester	
WRITTEN & OF	RAL COMMUNICATION: 6 credit hours min	iimum		
ENG124	College Composition <sup>^</sup> ( <b>Required</b> )	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing (recommended)	3	ENG124	
ENG231	College Composition II	3	ENG124	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
SOCIAL & BEH	AVIORAL SCIENCES: 6 credit hours minim	um		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PSY124	Industrial/Organizational Psychology	3		
PSY220	Social Psychology	3	PSY121	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC122	Society and Technology	3		
PSC121	Political Science	3		
SOC225	Cultural Diversity ( <b>Required</b> )	3		
BUS122	Basic Economics^	3	IDS102 or Proficiency	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
ARTS & HUMA	NITIES: 6 credit hours minimum			
ENG233	British Literature: Med to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
ENG236	American Literature: Colonial to 1865	3	ENG124	
ENG237	American Literature: 1865 to Present	3	ENG124	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization From 17th Century	3		
PHL122	Ethics	3		

<sup>^</sup> Based on SSC placement scores

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<sup>^^</sup> To promote student success, this course should be taken in the first semester

**7107** 

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MATHEMATICS: 4	credit hours minimum			
MTH135	Precalculus^ – A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.	5	MTH025 or Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency	
NATURAL SCIENCE	ES: 8-10 credit hours required Choose 1 Option Below			
Pre-Astronor	ny/Astrophysics			
PHY105	Astronomy (lab)	4		
CHM141	General Chemistry I (lab)	5	(CHM101 <b>or</b> Proficiency) <b>or</b> (MTH024 <b>or</b> MTH025 <b>or</b> Proficiency)	
Pre-Bache	lor of Science		(i.i.i.o2 or i.i.o.o	
CHM141	General Chemistry I (lab)	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
Pre-Biophy	ysics (Choose 2 of 3)			
BIO141	General Biology I	4		
BIO142	General Biology II▲+	4		
CHM141	General Chemistry I (lab)	5	CHM101 or Proficiency	
Lab Techn	ician			
CHM141	General Chemistry I (lab)	5	(CHM101 or Proficiency) or (MTH024 or MTH025 or Proficiency)	
CHM205	Forensic Chemistry (lab)	3	CHM105 or CHM121 or CHM141	
CONCENTRATION	CORE: 18 credit hours required			
PHY221	General Physics I with Calculus (lab) ▲-	5	MTH223 and Co-MTH224	
PHY222	General Physics II with Calculus (lab) ▲+	5	PHY221 and MTH224 and Co-MTH225	
MTH224	Analytic Geometry and Calculus II	4	MTH223	
MTH225	Analytic Geometry and Calculus III	4	MTH224	
CONCENTRATION	ELECTIVES – Select additional courses or more Natural Scien	nces above to	complete the total of 60-65 credit hours.	
MTH226	Linear Algebra ▲-	3	MTH224	
MTH227	Ordinary Differential Equations ▲+	3	MTH224	
CHM105	Introduction to Forensic Science (lab)	3		
GEO141	Physical Geology	4		
CST121	Modeling & Simulation	3	MTH221 or MTH223	
CSE122	Programming Logic and Problem Solving	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
SSC201	Study Away: Experiential Learning	1		
SCI273	Special Topics in Science	3	Sophomore in program	
	TOTAL CREDIT HOURS (60 credits minimum)	60-65		

<sup>^</sup>Based on SSC placement scores

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<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.
▲+Spring only courses. Please see your academic advisor for availability.

#### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester to discuss their academic progress as well as career plans.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in four years.

#### Elective Additional Credit

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit the website of the university and program to which you are transferring for their course requirements. Also visit https://www.transferology.com/ to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer Module approved and TAG approved courses.

#### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

First Semester SSC101 Natural Sciences Elec ENG124	Student Success Seminar^^ ctive 4 College Composition^ (required)	Credit Hours 1 3-5 3	Pre- and Co-requisites  Take first semester.  Check for prerequisite  Co-ENG024 or Co-ENG011
	•	_	or Proficiency
SOC225	Cultural Diversity ( <b>required</b> )	3	
MTH223	Analytic Geometry and Calculus I ^	4	MTH135
		14-16	
Second Semester			
	nmunication Elective <sup>1</sup>	3	Check for prerequisite
Natural Sciences Elec		4-5	Check for prerequisite
Concentration Electiv	re <sup>4,5,6</sup>	3-4	Check for prerequisite
MTH224	Analytic Geometry and Calculus II^	<u>4</u>	MTH223
	,	14-16	
Third Semester			
Arts & Humanities El	lective <sup>3</sup>	3	Check for prerequisite
Social & Behavioral			Check for prerequisite
		<u>3</u>	J
Fourth Semester			
PHY221	General Physics I with Calculus (lab) ▲-	5	MTH223 and Co-MTH224
MTH225	Analytic Geometry and Calculus III	4	MTH224
Arts & Humanities El		<u>3</u>	Check for prerequisite
		12	• • •
Fifth Semester			
PHY222	General Physics II with Calculus (lab) ▲+	5	PHY221 and MTH224 and Co-MTH225
Concentration Electiv	<sup>2</sup> e <sup>4,5,6</sup>	4	Check for prerequisite
Concentration Electiv	ye <sup>4,5,6</sup>	<u>4-5</u>	Check for prerequisite
		13-15	- <del>-</del>
	TOTAL CREDITS	60-65	

<sup>^</sup>Based on SSC placement scores

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<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>&</sup>lt;sup>1</sup> Written and Oral Communication Electives: COM121, COM122, ENG221, ENG231

<sup>&</sup>lt;sup>2</sup> Social & Behavioral Science Elective: BUS122, BUS221, BUS222, PSC121, PSY121, PSY124, PSY220, SOC121, SOC122

<sup>&</sup>lt;sup>3</sup> Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122

<sup>&</sup>lt;sup>4</sup> Natural Sciences Options: (PHY105 and CHM141) or (CHM141 and CHM142) or (BIO141, BIO142 or CHM141) or (CHM141 and CHM205)

<sup>&</sup>lt;sup>5</sup>Concentration Elective: CHM105, CSE122, CST121, GEO141, ITD122, MTH226, MTH227, SCI273, SSC201

<sup>&</sup>lt;sup>6</sup> Select additional courses to complete the total of 60-65 credit hours

<sup>▲-</sup>Fall only courses. Please see your academic advisor for availability.

<sup>▲+</sup>Spring only courses. Please see your academic advisor for availability.



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### ACC121 PRINC OF ACCOUNTING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is an introduction to accounting which covers the accounting cycle and generally accepted accounting principles and practices in financial accounting as applied to business entities. Upon completion of this course, students should be able to analyze and record transactions, prepare financial statements and use financial information in decision making.

#### Pre-reqs:

#### ACC128 Acctg Basics for Managers

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course is an introduction to the language of accounting, cost concepts and financial reporting. The emphasis is on the use of financial information to understand the operations of a business and to make choices which best position the entity for future success. Upon completion of this course, students should be able to interpret and analyze financial information and use that information in business decision-making.

#### Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

And IDS102

MTH108

Or MTH124

Or MTH125



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### ACC130 BUSINESS LAW AND ETHICS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An examination of the functions of the legal system in the business environment. This course includes the study of traditional business law topics and other basic topics applicable to business. A close examination of the intersection between professional ethical decision-making and the legal system as it applies to business. Upon completion, students should be able to demonstrate competence in the fundamental concepts of business law and ethics. TAG approved course-OBU004 effective Summer 2018

#### Pre-reqs:

#### ACC131 Taxation I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course is the first in a two-course sequence. The course examines principles of taxation for individuals, partnerships, and both C corporations and S corporations. In-depth analysis of the computation of income and deductions for all four types of entities will be covered. In addition, cost recovery, tax credits, and the overall classifications, filing statuses and reporting requirements are discussed as well as the effects of flow-through tax entities on individuals and businesses. Students will prepare comprehensive tax cases on IRS tax forms to gain applied knowledge. Upon completion of the course, students should be able to analyze complex tax scenarios and determine their impact on the tax liability of individuals, partnerships, and both C corporations and S corporations.

#### Pre-regs:

ACC132

Can be Taken Concurrently

#### ACC132 FINANCIAL ACCOUNTING

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course introduces the student to the fundamental processes of accounting through coverage of the accounting cycle consisting of transaction analysis, the recording function and financial statement preparation and analysis. Course coverage continues with a review of receivables; inventory, property, plant and equipment; bonds and stockholder's equity. Emphasis is given to why certain procedures are followed and their financial statement impact. Students may elect to take ACC121, Principles of Accounting, as an introduction to accounting prior to taking this course. TAG approved course-OBU010, effective summer 2015.

#### **Pre-reqs:**

**BUS123** 

Or BUS124



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### ACC133 MANAGERIAL ACCOUNTING

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

The emphasis in this course is on the use of accounting information as an internal tool for planning and control. Course coverage includes ratios, cost behavior, cost accumulation and reporting, cost-volume-profit analysis, budgeting, and other decision criteria. While primary coverage will be of this material in a manufacturing setting, service and merchandising applications will also be presented. Upon completion of this course, students should be able to apply the fundamental concepts of managerial accounting to a variety of business decisions. TAG approved course- OBU011, effective summer 2015.

#### Pre-reqs:

ACC132

#### ACC221 INTERMEDIATE ACCT I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course covers the accounting standard setting process and the conceptual framework. It includes a review of the accounting cycle, an in-depth study of the format and presentation of the income statement and balance sheet, the use of time value of money in accounting applications, and accounting and reporting for current and long-term assets. Students will perform accounting research using professional literature. Upon completion of this course, students should be able to demonstrate competence in a variety of financial accounting and reporting areas.

#### **Pre-reqs:**

ACC132

#### ACC222 INTERMEDIATE ACCT II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This is the second in a two-course sequence. It completes the coverage of the balance sheet accounts with the accounting and reporting for current and long-term liabilities and stockholders' equity. The remainder of the course covers special topics such as earnings per share, investments, revenue recognition, income tax accounting, pensions, leases, and the statement of cash flows. Students will perform accounting research using professional literature. Upon completion of this course, students should be able to demonstrate competence in a variety of financial accounting and reporting areas.

#### **Pre-reqs:**

ACC221



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### ACC223 COST ACCOUNTING

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course places an emphasis on manufacturing and service organizations. Course coverage includes job costing, process costing, activity-based costing/activity-based management, standard costing, and analysis of cost variances. Upon completion of this course, the student should be able to apply fundamental concepts of cost accounting in making business decisions.

#### Pre-reqs:

ACC133

#### ACC225 AUDITING

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Emphasis is placed on the philosophy and environment of the public accounting profession, with special attention paid to the nature and economic purpose of audit and assurance services, professional standards, professional conduct, legal liability, audit evidence, audit planning, consideration of internal control, audit sampling, audit workpapers and SOX compliance. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting audits of public and non-public companies.

#### Pre-regs:

ACC222

Can be Taken Concurrently

#### ACC226 ADVANCED ACCOUNTING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers higher level accounting topics including business combinations and consolidations, accounting for partnerships, as well as the fundamentals of derivatives and the accountant's role in estates and trusts. Consolidation topics include an understanding of the entries necessary to prepare consolidated financial statements including elimination entries for inter-company sales, loans, asset and inventory transfers and preparation of consolidated statement of cash flows. Topics also include understanding the international business environment. Upon completion of the course, the student should understand the fundamentals of consolidations, partnerships, derivatives, and estates and trusts.

#### **Pre-reqs:**

ACC222

Can be Taken Concurrently



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### ACC227 Payroll Accounting

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course includes comprehensive coverage of payroll computations and all related taxes. Students will prepare payroll records, payroll journal entries and required tax forms. Upon completion of this course, students should have a functional knowledge of payroll accounting and reporting.

#### Pre-regs:

ACC121

Can be Taken Concurrently

Or ACC132

Can be Taken Concurrently

#### ACC229 Computerized Actg Applications

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course involves recording and reporting accounting information using QuickBooks. It also includes an introduction to accounting applications in Enterprise Resource Planning (ERP) tools such as Systems, Applications and Products (SAP). Upon completion of this course, the student should have a functional knowledge of computerized accounting applications and procedures.

#### Pre-reqs:

And ACC121

Or ACC132

AOT226

Or ITD122

#### ACC231 Taxation II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is the second in a two-course sequence. The course examines advanced taxation topics for both individuals and various business entities including trusts and estates. Topics covered include gain and loss transactions, various income and deductions calculations, limits on losses, and advanced basis issues in formation of and distributions from business entities. Students will also be exposed to the basics of tax calculations and reporting issues for exempt entities as well as for trusts and estates. Students will prepare comprehensive tax cases on IRS tax forms to gain applied knowledge. Upon completion of the course, students should be able to analyze complex tax scenarios for various entities and determine the impact on tax liability.

#### Pre-regs:

ACC131



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### ACC232 GOVT AND NOT-FOR-PRFT ACCT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces students to the accounting requirements for governmental and other not-for-profit entities. Students will gain a working knowledge to prepare and interpret accounting and financial information of various state and local governments under the Governmental Accounting Standards Board (GASB) and not-for-profit organizations under the Financial Accounting Standards Board (FASB) as well as governmental and not-for-profit health care organizations and educational institutions. Upon completion, the student should have a working knowledge of the budgetary and operational accounting and financial reporting of governmental and not-for-profit entities.

#### Pre-regs:

ACC132

#### ACC234 ADVANCED PAYROLL

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is the second course in a two-course sequence on payroll accounting. Emphasis is placed on payroll laws and Federal Acts. Payroll Accounting Systems are discussed in detail. Additional topics include employee versus independent contractor, special pay situations, self-employment, payment of federal payroll taxes, penalties, taxable fringe benefits, supplemental pay, the gross-up of supplemental pay, and the advanced earned income credit. The completion of Federal, State, and Local Payroll Tax Forms will be reviewed and practiced including Form 941, W-2, W-3, 1099, 1096, W-4, W-5, State Unemployment, Bureau of Workers Compensation, State Income Tax Withholding. This course is geared to the Fundamental Payroll Certification and upon completion of this course, the student should be prepared to take the Fundamental Payroll Exam, adminstered by the American Payroll Association.

#### Pre-regs:

ACC227

#### ACC235 FORENSIC ACCOUNTING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an overview of the methodology of forensic accounting and fraud investigation which involves obtaining documentary evidence, interviewing witnesses, writing investigative reports, testifying to findings, and examining forensic documentation. Students will apply prevention, detection, and investigative strategies to determine why and how occupational fraud is committed. Upon completion of this course, students should be familiar with the basic concepts of forensic accounting and fraud prevention and detection.



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### ACC237 FRAUD EXAMINATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers the nature of fraud and the responsibility of management for fraud prevention and detection. Special emphasis is given to the design of internal control systems, the identification of material weaknesses in internal controls and the additional responsibilities imposed on management under the provisions of Sarbanes-Oxley. Upon completion of this course, students should be familiar with the basic concepts of fraud prevention and detection.

#### Pre-regs:

ACC133

#### ACC238 Financial Statement Analysis

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course emphasizes the role of financial statement analysis in managerial decision making. Topics include a review of the form and content of the financial statements and various methods of analyzing liquidity, solvency, and profitability using the information in those statements. Upon completion of this course, the student should be able to analyze financial data and apply that analysis to developing effective management strategies.

#### **Pre-reqs:**

ACC133

#### ACC240 CMA EXAM PART 1 REV CRSE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers all of the topics that are tested on Part 1 of the Certified Management Accountant (CMA) Exam. Topics include planning, budgeting and forecasting; performance measurement; cost management; internal controls; and professional ethics. Upon successful completion of this course, the student should be prepared to sit for part 1 of the CMA exam.

Pre-reqs:

ACC223

Can be Taken Concurrently



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### ACC241 CMA EXAM PART 2 REVIEW COURSE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers all of the topics that are tested on Part 2 of the Certified Management Accountant (CMA) Exam. Topics include financial statement analysis, financial performance measures (including financial ratios), decision analysis and risk management, investment decisions, and professional ethics. Upon successful completion of this course, the student should be prepared to sit for part 2 of the CMA exam.

#### Pre-regs:

ACC223

Can be Taken Concurrently

#### **BUS124 BUSINESS ANALYSIS WITH ALG**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to present and facilitate the mastery of the use of analysis in business applications. The applications include percentage computations; payroll; buying, markup and markdowns; simple interest; compound interest including business and consumer loans and ordinary annuities. Upon successful completion of this course, the student should be able to apply fundamental analysis to business problems

#### **Pre-reqs:**

- Or Test & Score: ACT Math 19
- Or Test & Score: ACT Reading 18
- Or Test & Score: Accuplacer College-level Math 040
- Or Test & Score: Accuplacer Elementary Algebra 097
- Or Test & Score: Accuplacer Reading 070
- Or Test & Score: Compass Algebra 039
- Or Test & Score: Compass Reading 80
- Or Test & Score: GED Reasoning Through Lang Art 1
- Or Test & Score: IDS Transfer Prof/Placement 3
- Or Test & Score: M092 Transfer Prof/Placement 3
- Or Test & Score: HS Math Proficiency 3
- Or Test & Score: NextGen Accuplacer AAF Math 237
- Or Test & Score: NextGen Accuplacer Reading 244
- Or Test & Score: NextGen Accuplacer QAS Math 250
- Or Test & Score: Reading Proficiency 3
- Or Test & Score: SAT Verbal 480
- Or Test & Score: SAT Mathematics 510

And IDS102

MTH022 484



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### **BUS124 BUSINESS ANALYSIS WITH ALG**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to present and facilitate the mastery of the use of analysis in business applications. The applications include percentage computations; payroll; buying, markup and markdowns; simple interest; compound interest including business and consumer loans and ordinary annuities. Upon successful completion of this course, the student should be able to apply fundamental analysis to business problems

#### Pre-regs:

Or MTH092

#### FIN110 Personal Finance

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will address the economic concepts associated with personal financial planning. Topics covered include: preparing a personal financial plan and achieving financial goals; understanding federal tax principles and tax planning; managing personal assets including bank accounts, automobiles, and housing; evaluating and managing the various forms of personal credit; analyzing the need for and cost of life, health, and property insurance; managing various types of investments including a risk versus reward analysis; and, understanding the need for and methods of retirement planning. Upon successful completion of this course, students should be able to apply and demonstrate an understanding of the above topics relative to their personal financial goals. CTAG CTPF001 approved effective summer 2019

Pre-regs:

#### FIN220 BUSINESS FINANCE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers topics such as management and analysis of short and long-term assets and equities, their costs and their utilization in optimal corporate financial structures. Upon completion of this course, the student should be able to estimate a firm's cost of capital and discuss the risks and costs associated with the various forms of financing in a corporate setting.

#### **Pre-reqs:**

ACC133



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#### **Business/Entrepreneurial**

**Accounting/Finance** 

#### FIN221 INVESTMENTS AND SECURITIES

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides the student with an understanding of the basics of investing. This includes analyzing investment options, the concept of risk, and using various information sources. Upon completion of this course, the student should be able to research various types of investments and understand trading and investment activities.

#### Pre-regs:

ACC132

#### FIN224 RISK MANAGEMENT

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course is designed to provide the students with a clear understanding and insight of insurance programs available to individuals, families and organizations as a safeguard against financial liabilities in case of accidents, prolonged illness and for losses due to natural catastrophes and disasters. Upon completion, students should be able to select the most appropriate insurance program for themselves and their families.

#### **Pre-reqs:**

ACC132

#### FIN227 MONEY AND BANKING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will address the economic concepts associated with money, financial institutions and monetary policy. Topics covered include: financial markets and interest rates; the structure and management of financial institutions; the structure of central banks and the Federal Reserve System; and, determininants of the money supply and the tools of monetary policy. Upon successful completion of this course, students should be able to apply and demonstrate an understanding of the above topics relative to today's economy.

### Pre-reqs:

Or BUS123

**BUS124** 

#### **Administrative Srv Off Applion**



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#### **Business/Entrepreneurial**

#### **Administrative Srv Off Applion**

#### **AOT110** Intro to Admin Assisting

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course is designed to provide an introduction to the administrative assistant field. Topics include traits and skills an administrative assistant should possess, how an administrative assistant supports an organization, areas for employment and job opportunities, professional image and dress, communication, and ethical behaviors. Upon completion of this course, students will have an understanding of the administrative assistant field and be able to apply the skills learned in this class to their academic program.

#### Pre-reqs:

#### **A0T140** Virtual Assistant Fundamentals

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the unique skills and qualities that a virtual assistant needs to be successful. Through research and lab projects, the student will explore the roles of a virtual assistant, business planning and operating, establishing a web presence, and many specialty service areas. Emphasis will be placed on providing services remotely for a varied and diverse clientele.

#### **Pre-reqs:**

Or Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

ITD100

#### AOT228 Virtual Admin Asst Procedures

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Emphasis will be placed on how to be a successful virtual administrative assistant. Areas covered include creating a business plan, setting up an office, creating a list of services, determining rates, creating a marketing plan, advertising, obtaining clients, handling problems, and developing proper practices and procedures.

#### Pre-reqs:

AOT140

#### **Automotive**



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT121 AUTOMOTIVE TECH SKILLS**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This is an introductory level course that will provide the student with an understanding of the correct use of precision measuring equipment, hand tools, shop equipment, cutting torches and service repair information. Emphasized throughout the course will be shop safety procedures and the correct handling of hazardous waste materials. Applied physics fundamentals will be introduced, along with repair procedures for basic automotive components such as: fasteners, bolt hole repair, drilling and tapping, heli-coil and time- serts, fastener tensile strength and torque to yield. Classroom learning will be reinforced by lab activities. CTAUT005, effective Spring 2016

Pre-regs:

#### **AUT122 AUTOMOTIVE SYS AND ENG TEC**

Credit Hours: 4 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This course is designed to introduce the student to the technology and terminology of the automotive industry. The various components and systems of the automobile will be surveyed, and the basic operational theory of each will be explained. Special emphasis is placed on understanding the theory, nomenclature, and construction of the automobile engine. Subjects such as energy transformation, combustion, fuel metering, basic fuel injection, and basic emission controls will be presented. Classroom learning will be reinforced by laboratory activities.

Pre-regs:

AUT121

Can be Taken Concurrently

#### AUT123 ENG DIAGNOSIS AND MAJ SERV

Credit Hours: 4 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This course is designed to give the student knowledge of the procedures used for automobile engine and systems diagnosis and overhaul. During the diagnosis portion of this course, students will learn how to use diagnostic test equipment. Covered also will be customer questioning techniques and information gathering procedures. During the laboratory portion of the course, the student will gain hands-on experience in engine disassembly procedures, failure diagnosis, component inspection, machining processes, measuring, fitting, and reassembly techniques.

**Pre-reqs:** 

AUT121

Can be Taken Concurrently



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT124 VEHICLE CHASSIS SYSTEMS**

Credit Hours: 4 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This course is designed to give the student an in-depth knowledge of today's automotive steering, suspension and braking systems. Operational theory will be reinforced by laboratory periods which will allow the student to gain hands-on experience in diagnosing malfunctions, performing routine maintenance, and in making adjustments and repairs to these systems. Subjects such as vehicle four wheel alignment and base braking systems servicing will be covered. Quality work methods used when diagnosing, adjusting and repairing these safety-related systems are stressed. CTAG approved CTAUT001 and CTAUT004.

Pre-reqs:

AUT121 Can be Taken Concurrently

#### AUT125 AUTO ELEC'L AND ACCES SYS

Credit Hours: 4 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This course is designed to give the student an understanding of DC electrical principles including Ohm's Law, basic circuits, semiconductors, automotive wiring and common electrical components. Emphasis will be placed on the maintenance, diagnosis and repair of basic automotive electrical systems including starting and charging systems, electrical motors, switches and relays. Laboratory periods will allow the student to develop proficiency in the use of wiring diagrams, diagnostic flow charts and hands-on techniques utilizing DVOM's and other electrical test instruments. CTAG approved CTAUT002.

**Pre-reqs:** 

AUT121 Can be Taken Concurrently

#### **AUT126 AUTO HVAC SYSTEMS**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed to give students a sound knowledge of the theory and repair of modern automotive heating and air conditioning systems (HVAC). Before taking this course, the student should have a basic knowledge of automotive fundamentals and electrical equipment, and experience with common shop tools and techniques. Topics include: heat transfer, heating and cooling cycles, air flow management and component identification. System diagnosis, servicing, and repair techniques are demonstrated by the instructor, and lab sessions will enable the students to apply these concepts and procedures to vehicles fitted with the various manufacturers' systems. Laboratory exercises will include recovery and recycling operations required for R-12 and R134a. Special emphasis is placed on the safety aspects related to heating and air conditioning service.

**Pre-regs:** 

AUT121 Can be Taken Concurrently



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT128** Auto Diesel Eng Perf

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course covers the theory of operation of automotive diesel engines. The emphasis in this course is placed on the operation and servicing of diesel engine mechanical components, such as turbochargers, superchargers, engine blocks, cylinder heads, crankshafts, camshafts, pistons, and connecting rods. Reference will be made to other types of engine designs, where relevant to the course material. Student learning is reinforced by laboratory exercises emphasizing the correct application of diagnostic procedures and servicing methods.

Pre-reqs:

AUT121 Can be Taken Concurrently

#### AUT130 AUTO SAFETY AND SHOP STANDARDS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed to provide students with the knowledge and introductory experience required to safely perform vehicle service procedures in an automotive shop environment. Proper shop equipment operation, adequate shop ventilation practices, appropriate shop attire, and the use of automotive shop safety equipment are covered using industry standards. The proper use and storage of automotive chemicals are also practiced using current Material Safety Data Sheets (MSDS) chemical safety standards. At the completion of this class, students should be able to properly identify and use shop equipment, categorize and properly store shop chemicals, and work safely in an automotive shop environment.

Pre-regs:

#### **AUT131 AUTO DETAILING BUS PRACTICES**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course covers the business side of the detailing profession. With minimal investment, detailing vehicles can start out as a small part-time job and build into a full-time business. This class addresses the questions of: How do I charge for these services, who are my customers, where do I purchase the right products at the right price, what do I need to get started, how can I advertise, and how do I protect myself and my investment? Case studies, guest speakers, and site visits will reinforce the entrepreneurial aspects of running your own detailing business.



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT132 AUTO EXTERIOR DETAILING**

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course has been designed to provide students with the knowledge and introductory experience required to detail the exterior of vehicles in the automotive industry. At the completion of this class, students should be able to choose and identify proper tools, cleansers, and other chemicals associated with vehicle exterior detailing. Students will learn the appropriate techniques of washing, cleaning, and waxing of all major exterior components on an automobile. Students are expected to follow all current safety standards including the application of all Material Safety Data Sheets (MSDS) chemical suggestions.

Pre-reqs:

#### AUT133 AUTO INTERIOR DETAILING

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This class provides students with the knowledge and introductory experience required to detail the interior of vehicles in the automotive industry. At the completion of this class, students should be able to choose and identify proper tools, cleansers, and other chemicals associated with vehicle interior detailing. Students will learn the appropriate techniques of washing interior components, cleaning, and applying proper chemical conditioners on all major interior components in an automobile. Students will also be expected to follow all current safety standards including the application of all Material Safety Data Sheets (MSDS) chemical suggestions.

Pre-regs:

AUT132 Can be Taken Concurrently

#### AUT134 AUTO UNDER-HOOD/UNDER-CAR DET

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This class provides students with the knowledge and introductory experience required to detail the under-hood and under-car areas of vehicles in the automotive industry. At the completion of this class, students should be able to choose and identify proper tools, cleansers, and other chemicals associated with vehicle under-hood and under-car detailing. Students will learn the appropriate techniques of washing components, cleaning, and applying the proper chemical conditioners on all major under-hood and under-car areas of a vehicle. Students will be expected to follow all current safety standards including the application of all Material Safety Data Sheets (MSDS) chemical recommendations.

**Pre-reqs:** 

AUT132

Can be Taken Concurrently



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT135 ADV AUTO DETAILING TECH**

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This class provides students with the knowledge, experience, and advanced detailing techniques required to correct and improve imperfections on vehicle painted surfaces, plastic surfaces, and windshields. At the completion of this class, students should be able to use proper polishing techniques and procedures to correct painted surface concerns. Students will also be exposed to techniques and resources used to correct blemishes on vehicle plastic and glass surfaces. Students are expected to follow all current safety standards including the application of all Material Safety Data Sheets (MSDS) chemical suggestions.

Pre-regs:

AUT132 Can be Taken Concurrently

#### AUT136 PRACTICAL AUTO DETAIL APPLIC

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Students will incorporate detailing techniques and critical thinking to real world scenarios while working together in teams on multiple group projects. The groups will access real-life vehicle detailing problems and discuss the proper corrective actions. Students will then execute their plans and evaluate the results. This class requires the students to apply knowledge and skills acquired in previous vehicle detailing classes to complete basic to advanced-level tasks in the detailing industry.

Pre-regs:

AUT132 Can be Taken Concurrently

#### **AUT137 ASE TEST PREPARATION**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course is designed to help the student develop a better understanding of the Automotive Service Excellence (ASE) certification and testing process. Students will access ASE practice tests, instructional videos, technical reference materials, and participate in discussion forums.

Instructor-led discussions will cover Automotive Service Excellence (ASE) certification areas A-1 Engine Repair, A-4 Suspension and Steering, A-5 Brakes, A-6 Electrical/Electronic Systems, and A-7 Heating and Air Conditioning. ASE is the nationally recognized industry standard for automotive technician certification.



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT138 APPLIED AUTOMOTIVE PRINCIPLES**

Credit Hours: 4 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This course is designed to help the student develop greater confidence and better hands-on skills by providing an instructor-guided work experience in an automotive lab environment. By referencing service information and applying a strategy-based diagnostic approach, students will be able to reinforce their existing technical skills and develop new service techniques that will help them to be better prepared to enter the workplace as an automotive technician.

Lab tasks, service information, and instructor-led discussions will cover Automotive Service Excellence (ASE) certification areas A-1 Engine Repair, A-4 Suspension and Steering, A-5 Brakes, A-6 Electrical/Electronic Systems, and A-7 Heating and Air Conditioning. ASE is the nationally recognized industry standard for automotive technician certification.

Pre-regs:

#### AUT141 Steer, Susp, & Brak Oper

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed for technicians and students that desire to become dealership technicians. This course is designed to provide the student with a working knowledge of the theory and repair of steering, suspension, and braking systems. Before taking this course, the student should have a basic knowledge of automotive safety practices and experience with common shop tools and techniques. The instructor will demonstrate steering, suspension, and braking system inspection and repair techniques.

Pre-regs:

#### **AUT142** Auto Elect Systems

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed for technicians and students that desire to become dealership technicians. The course is designed to provide the student with an understanding of electrical terms, circuit concepts, and diagnostic techniques through the use of classroom instruction and hands-on training. Digital multi-meter usage is stressed. Instruction is given in wiring repair, batteries, starting, and charging systems. This course will emphasize: basic automotive circuit operation, circuit diagnosis, electrical circuit diagnosis, soldering techniques, wire and connector repair, Ohm's Law, circuit value conversions, wiring schematic interpretation, introduction to semi-conductors, and vehicle body circuits.



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#### **Business/Entrepreneurial**

**Automotive** 

#### AUT143 Heat, Vent, AC Light Veh

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed for technicians and students that desire to become dealership technicians. This course is designed to provide the student with a sound knowledge of the theory and repair of heating and air conditioning systems. Before taking this course, the student should have a basic knowledge of automotive and electrical equipment, and experience with common shop tools and techniques. The instructor will demonstrate HVAC system diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to vehicles. Special emphasis is placed on the safety aspects related to heating and air conditioning service.

Pre-regs:

#### AUT171 INTRODUCTION TO HONDA PACT

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course introduces the student to the Honda PACT program and the different methods of instruction that will be used throughout the program. Each students will be issued a user name and password to gain access to the Honda Information System that contains computer- based training modules (CBT) and Honda service information. This course will familiarize the student on how to access and apply Honda service information during repair of Honda vehicles. Prior to hands- on practice, the instructor will demonstrate how to perform a Vehicle Service Inspection and a Honda New-Car Pre-Delivery Inspection.

Pre-regs:

#### **AUT172 HONDA ENGINE MECHANICAL**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course covers Honda-specific diagnostic and repair techniques necessary to service Honda engine mechanical systems. Prior to hands- on practice, the instructor will demonstrate equipment usage, Honda service materials, proper engine mechanical inspection and repair procedures. Hands-on practice will enable the student to apply these concepts to Honda vehicles. Special emphasis is placed on the safety and cleanliness aspects related to automotive engine mechanical service. Information covered in this course should assist the student in reaching a level of understanding necessary to attempt ASE certification in this area.



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#### **Business/Entrepreneurial**

**Automotive** 

#### AUT173 HONDA STEERING AND SUSPENSION

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course covers honda-specific diagnostic and repair techniques necessary to service Honda steering and suspension systems. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper steering and suspension system inspection and repair procedures. Hands-on practice will enable the students to apply these concepts to Honda vehicles. Special emphasis is placed on the safety aspects related to automotive steering and suspension service.

Pre-reqs:

AUT124 Can be Taken Concurrently

#### **AUT174 HONDA BRAKING SYSTEMS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course covers Honda-specific diagnostic and repair techniques necessary to service Honda braking systems. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper braking system inspection and repair procedures. Hands-on practice will enable the students to apply these concepts to Honda vehicles. Special emphasis is placed on the health and safety aspects related to automotive brake service.

**Pre-reqs:** 

AUT124 Can be Taken Concurrently

#### **AUT175 HONDA ELECTRICAL SYSTEMS**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course covers Honda-specific diagnostic and repair techniques necessary to service Honda automotive electrical systems. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper inspection and repair procedures related to Honda automotive electrical systems. Hands-on practice will enable the students to apply these concepts to Honda vehicles. Special emphasis is placed on the safety aspects related to automotive electrical service.

Pre-reqs:

AUT125 Can be Taken Concurrently



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT176 HONDA HVAC SYSTEMS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course covers Honda-specific diagnostic and repair techniques necessary to service Honda automotive HVAC systems. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper HVAC system inspection and repair procedures. Hands-on practice will enable the students to apply these concepts to Honda vehicles. Special emphasis is placed on the environmental and safety aspects related to automotive HVAC service.

Pre-regs:

AUT125 Can be Taken Concurrently

#### **AUT181 INTRO TO CAT LIFT TRUCKS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The purpose of this course is to provide the student with an understanding of the skills and procedures needed to accurately diagnose and repair CAT lift trucks. This course introduces the student to the Caterpillar Lift Truck (CLT) Program and the different methods of instruction that will be used throughout the program. The course text is divided into small modular sections making it easy for the student to absorb and apply the information in a logic manner. Each student will be issued a user name and password to gain access to the CAT Learning Resources Website which contains computer-based training modules (CBT). This course will introduce students to the basics of fork lift trucks, their operation and an overview of the fork lift industry. Students will receive an introduction to CAT Lift Trucks, its history and the formation of the joint venture with MCFA. Each section ends with a student self-assessment worksheet covering the main topics in that section.

Pre-regs:

AUT121

#### **AUT182 CAT OPERATOR SAFETY TRAINING**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course will prepare the student for proper forklift truck operation in the workplace. On March 1, 1999, the Occupational Safety and Health Administration (OSHA) revised its previous requirements for powered industrial truck operator training and issued new requirements to improve the training of persons operating powered industrial trucks (forklift trucks). These provisions mandate a training program that bases training on the types of powered industrial trucks the operator will operate in the workplace; the hazards present in the workplace; and the operator's demonstrated ability to operate a powered industrial truck safely.

Pre-reqs:

AUT121 Can be Taken Concurrently



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT183 CAT SERVICE INFORMATION SYSTEM**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course introduces the student to CAT service materials and planned maintenance schedules for fleets using CAT lift trucks. The instructor will demonstrate how to locate CAT technical and parts information. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. Professional image and customer relations will be stressed and how it relates to customer satisfaction. The course concludes with a self-assessment worksheet to reinforce learning objectives.

Pre-regs:

AUT121 Can be Taken Concurrently

#### **AUT184 CAT HYDRAULIC SYSTEMS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The purpose of this course is to provide the student with an understanding of the skills and procedures necessary to accurately diagnose and repair hydraulic systems used on lift trucks. It covers basic and advanced theories and how these theories apply to lift truck hydraulic systems. The student will be able to identify components and explain their operation. The course also includes a brief description of industry standard symbols. The course will also cover safety-related tasks before attempting to service the hydraulic system. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self-assessment worksheet to reinforce learning objectives.

#### Pre-regs:

**AUT121** 

#### **AUT185 CAT INTERNAL COMBUSTION ENGINE**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

The purpose of this course is to allow the students to build the skills necessary to accurately diagnose and repair CAT lift truck internal combustion engines. The course covers component descriptions, fuel systems used, how 4 cycle engines work, compression ratios, air filters and PCV valves and basic troubleshooting guidelines. Fuel, ignition, and cooling system service and operation are also covered. Major emphasis is placed on in-unit service and repair of CAT (IC) engine systems. The instructor will demonstrate CAT (IC) engine diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a self-assessment worksheet to reinforce learning objectives.

#### Pre-reqs:

**AUT121** 

Can be Taken Concurrently



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT186 CAT MASTS AND LIFT MECHANISMS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The purpose of this course is to provide the student with an understanding of the skills and procedures necessary to accurately diagnose and repair masts used on lift trucks. It covers the purpose of the mast as it relates to powered industrial trucks. The student will be able to identify components and explain their function and operation. The course includes basic steps to visually inspect the mast and diagnose and correct problems with the mast assembly. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self-assessment worksheet to reinforce learning objectives.

Pre-regs:

AUT121 Can be Taken Concurrently

#### AUT187 CAT ELECTRICAL SYSTEMS

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

The course is designed to provide the student with an understanding of electrical terms, circuits concepts, and diagnostic techniques on CAT lift trucks. Digital multi-meter usage is stressed, with the students urged to bring their own meter. Instruction is given in wiring repair with time allotted for supervised practice. Also, batteries, starting, charging systems, ignition systems, lighting, and safety systems are covered in depth to insure accurate diagnosis and repair of those systems. The course will emphasize: circuit operation, circuit diagnosis, proper equipment usage for electrical circuit diagnosis, proper soldering techniques, wire and connector repair, Ohm's Law, circuit value conversions, and wiring schematic interpretation. The instructor will demonstrate CAT electrical system diagnosis and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks.

Pre-regs:

AUT121 Can be Taken Concurrently

#### **AUT188 CAT STEERING SYSTEMS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed to provide the student with a working knowledge of the theory and repair of CAT lift truck steering systems. Descriptions of drag line and hydrostatic steering systems are included with emphasis on hydrostatic. Before taking this course, the student should have basic knowledge of automotive/lift truck safety practices and experience with common shop tools and techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self-assessment worksheet to reinforce learning objectives.

Pre-reqs:



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT189 CAT BRAKING SYSTEMS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed to provide the student with a working knowledge of the theory and repair of CAT lift truck braking systems. Before taking this course, the student should have a basic knowledge of automotive/lift truck safety practices and experience with common shop tools and techniques. The instructor will demonstrate CAT braking system inspection and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self-assessment worksheet to reinforce learning objectives.

Pre-regs:

AUT121 Can be Taken Concurrently

#### **AUT191 Automotive Co-op 1**

Credit Hours: 2 Contact Hours: 24 Lecture Hours: 0 Lab Hours: 24 Other Hours: 0

Cooperative work experience opportunities are available to students enrolled in Automotive Department programs. Students may contact the Automotive Department Program Coordinator for specific information regarding co-op opportunities. During this course students will gain practical work experience by performing automotive general maintenance and light repair at a sponsoring automotive repair facility.

**Pre-reqs:** 

#### **AUT192** Automotive Co-op 2

Credit Hours: 2 Contact Hours: 24 Lecture Hours: 0 Lab Hours: 24 Other Hours: 0

Cooperative work experience opportunities are available to students enrolled in Automotive Department programs. Students may contact the Automotive Department Programs Coordinator for specific information regarding co-op opportunities. During this course, students will gain practical work experience by working on steering, suspension, and braking systems. Students will also be expected to perform battery, starting and charging system testing and repair, as well as engine mechanical diagnosis and repairs. Under special circumstances, sponsoring automotive repair facility and the instructor can determine specific tasks to be performed during the co-op.



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#### **Business/Entrepreneurial**

**Automotive** 

#### **AUT193** Automotive Co-op 3

Credit Hours: 2 Contact Hours: 24 Lecture Hours: 0 Lab Hours: 24 Other Hours: 0

Cooperative work experience opportunities are available to students enrolled in Automotive Department programs. Students may contact the Automotive Department Programs Coordinator for specific information regarding co-op opportunities. During this course, students will gain practical work experience by diagnosing and repairing HVAC concerns, diagnosing electrical faults, and diagnosing and servicing manual transmission systems. Under special circumstances, sponsoring automotive repair facility and the instructor can determine specific tasks to be performed during the co-op.

Pre-reqs:

#### **AUT194** Automotive Co-op 4

Credit Hours: 2 Contact Hours: 24 Lecture Hours: 0 Lab Hours: 24 Other Hours: 0

Cooperative work experience opportunities are available to students enrolled in Automotive Department programs. Students may contact the Automotive Department Programs Coordinator for specific information regarding co-op opportunities. During this course, students will gain practical work experience by diagnosing and repairing engine drivability concerns, advanced electrical concerns, and diagnosing and repairing automatic transmission faults. Under special circumstances, sponsoring automotive repair facility and the instructor can determine specific tasks to be performed during the co-op.

Pre-regs:

#### **AUT221 FUEL AND EMISSIONS MGT SYS**

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

The operation, diagnosis and servicing of fuel management and emission control systems is covered by lecture and demonstration. Emphasis is placed on the identification and servicing of specific manufacturers' systems using specialized test equipment, 4 and 5-gas analyzers will be used to reinforce student learning. Laboratory activities include diagnosis and repair of throttle body, port fuel injection systems, and emission control devices such as those utilized with EGR, AIR, and EVAP systems.

**Pre-reqs:** 



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#### **Business/Entrepreneurial**

**Automotive** 

#### AUT222 ENGINE SYS PER DIAGNOSIS

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course presents the techniques used for correct analysis of engine performance and driveability problems. Emphasis is placed on interpretation of manufacturers' product service information and technical service bulletins. Laboratory assignments utilizing automotive diagnostic equipment will reinforce student learning. CTAG approved CTAUT003.

Pre-reqs:

**AUT125** 

Can be Taken Concurrently

#### AUT223 ADV AUTO ELECTRONICS

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course provides the student with the knowledge and skills required to diagnose, service, and repair body electrical systems. Students will learn how to diagnose problems and will develop skills utilizing proper diagnosis procedures. Skills developed in this course, electric and electronics systems A6, will correlate to the ASE task list. This course is an in-depth lab study of electrical/electronics, electronic information retrieval, circuit protection devices, wiring, circuit operation and diagnosis procedures of controls including, but not limited to, single and multiple contact switches, relays, transistors and computers, will promote equipment usage and personal safety for the more sensitive and complex components presented in AUT 227.

#### Pre-regs:

**AUT125** 

#### **AUT224** Auto Diesel Perf Sys

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

Covered by lecture and practical demonstration is the theory of operation of automotive diesel auxiliary equipment such as fuel injection pumps, filtration systems, glow plugs and controllers, and diesel emission control systems. The emphasis in this course is placed on the operation and servicing of fuel delivery equipment as fitted to many domestic automotive diesels. Reference will be made to other types of fuel systems where relevant to the course material. Student learning is reinforced by laboratory exercises emphasizing the correct application of diagnostic procedures and servicing methods.

#### **Pre-reqs:**



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**Automotive** 

#### **AUT225 AUTO DRIVETRAIN 1**

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course precedes, but is taught in conjunction with, Automotive Drivetrain II. The purpose of this course is to give the student a sound knowledge of the operation of vehicle transmission and drivetrain systems. The course is divided into three sections: (1) Clutches and Flywheels; (2)Manual Transmissions; and (3) Final Drive Assemblies. Included in the course is student laboratory experience in the (a) identification and diagnosis; (b) dismantling and repair; and (c) reassembly and adjustment of all components used in modern manual transmission systems.

Pre-regs:

AUT121 Can be Taken Concurrently

#### AUT226 AUTO DRIVETRAIN 2

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course is taught in conjunction with Automotive Drivetrain I (AUT-225). The purpose of this course is to give the student a sound knowledge of the operation, diagnosis, and repair of automatic transmission and driveline systems. Included in the course is student laboratory experience in the techniques of diagnosis, disassembly and repair, reassembly and adjustment of all components used in modern automatic transmissions.

**Pre-reqs:** 

AUT121 Can be Taken Concurrently

#### AUT227 COMPUTERIZED VEH CONTROL

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

The purpose of this course is to give the student instruction on the operations of an automotive computerized system. Lab activities will include problem solving skills with diagnosis in servicing of computerized fuel, ignition, and emission control management systems. Testing of these systems will be accomplished with the use of specialized diagnostic testing equipment such as DVOM's, scanners, and voltage tracing scopes. This course will use the past knowledge that the student learned in the previous electrical and engine classes.

**Pre-reqs:** 



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#### **AUT228 AUTO SERVICE MANAGEMENT**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

The purpose of this course is to make the student aware of the Service Manager's/Service Advisor's role and what is entailed in doing the job in a professional manner. This course provides an introduction to the theory and practice of an important mid-management position in the automotive service field. Topics will include: customer-employee relations; scheduling and dispatching; legal and ethical responsibilities; consumer affairs and financial aspects; and quality assurance programs. The course will help the student gain experience in using customer contact skills, etc. by providing real-world experience in a service department through the field service component.

Pre-regs:

#### AUT230 TECHNICAL PROJECT

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This is an independent study course in which the student will create an automotive-oriented project that utilizes skills learned in previous Automotive Technology courses. The student will select an approved subject which may include functions such as research, construction and testing. Progress and performance will be evaluated throughout the semester.

Pre-regs:

### AUT231 SPECIALIZED ELEC TRAIN

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This is an elective course for automotive students that covers the fundamental laws of electricity, electrical schematic reading, wire repair, digital multimeter operation, service manual usage and electrical diagnosis of GM vehicles. Students participate in hands-on activities dealing with the vehicle electrical systems including: power windows, power door locks, wipers, HVAC, chime module, charging and starting, audio and ECM/PCM. This course emphasizes GM's strategy based diagnosis of electrical systems.

Pre-reqs:



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**Automotive** 

#### AUT232 FUEL INJECTION-EFI/PFI

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

EFI/PFI is an automotive elective course that discusses the various types of the throttle body and multiport fuel injection systems used with GM passenger cars and light trucks. Detailed descriptions of components and the operation of the fuel management systems are given by lecture and practical demonstration. The interrelationship of fuel system/emission controls devices operation and vehicle drivability problems is also covered. Special emphasis is placed on the correct application of diagnostic flowchart information. Student learning is reinforced by participation in laboratory exercises utilizing Scantools and other specialized diagnostic equipment.

#### Pre-regs:

AUT223

#### AUT233 AUTO DIAGNOSTIC APPLIC

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

Auto Diagnostic Applications is an advanced-level course that serves as a capstone for the Automotive Technology program. It is a final assessment of student knowledge and technical skills. Students integrate previously learned principles and concepts with practical field experiences and use specialized diagnostic equipment such as computer scan tools and lab oscilloscopes to evaluate the performance of vehicle systems and components. Under the guidance of an instructor and through an independent study component, students' diagnostic and hands-on skills are further developed and measured while performing component replacement and adjustment procedures to vehicles in a service department setting. The practical application of quality assurance techniques to automotive service work is strongly emphasized. This course also supports and reinforces knowledge required to pass the ASE Automotive Technician Certification examinations.

Pre-regs:

AUT223

Can be Taken Concurrently

#### **AUT234 ALT FUELS & ADV AUTO TECH**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed to provide the student with an understanding of alternative automotive fuels and the advanced technologies associated with fuel conversion and hybrid propulsion systems. Technologies addressed in the course will include diesel, compressed natural gas (CNG), liquid petroleum gas (LPG), methanol, ethanol, E-85 (bi-fuel vehicles), hydrogen, solar, electric propulsion, hybrid propulsion, and fuel cells. The description, application, and characteristics of alternative fuels will be covered. The course presents the history, legislation, regulations, safety, and the environmental impact associated with alternative fuels and those anticipated in the near future. Vehicle design and modification as it relates to alternative fuel systems will be studied as well as the storage and distribution of alternative fuels.

### Pre-reqs:



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## **Business/Entrepreneurial**

**Automotive** 

#### **AUT241 BODY CONTROL SYSTEMS**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course reviews the advanced concepts and applications of multiple body controllers with multiple inputs and outputs. Communication languages, multiplexing, and complex networks in automotive applications are also presented.

Pre-regs:

### **AUT253** Computerized Eng Cntrl Sys

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed for technicians and students that desire to become dealership technicians. The purpose of this course is to provide the student with an understanding of the skills and procedures needed to accurately diagnose and repair computerized engine control systems.

**Pre-reqs:** 

### AUT254 AUTO AFTERMKT VEH INT MOD

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This class provides students with the preparatory experience required to perform vehicle interior modifications. Students will be exposed to current automotive aftermarket industry standards. Attention to detail is reinforced throughout student projects. This course concentrates on the modification of vehicle interior electrical systems, lighting systems, instrument cluster, HVAC, window controls, seating, sound systems, and visual appeal through the application of automotive aftermarket accessories and practices.

**Pre-reqs:** 



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## **Business/Entrepreneurial**

**Automotive** 

#### AUT255 AUTO AFTERMKT VEH EXTERIOR MOD

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course provides students with the preparatory experience required to perform vehicle exterior modifications. Students will be exposed to current automotive aftermarket industry standards. Attention to detail is reinforced throughout student projects. This course concentrates on the modification of vehicle body aerodynamics, exterior lighting, and visual appeal through the application of automotive aftermarket accessories and practices.

#### Pre-regs:

**AUT125** 

#### AUT256 AUTO AFTERMKT VEH POWERTRN MOD

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course provides students with the preparatory experience required to perform vehicle powertrain modifications. Students will be exposed to current automotive aftermarket industry standards. Attention to detail is reinforced throughout student projects. This course concentrates on the modification of engine volumetric efficiency, final drive ratios, transmission shifting controls, fuel management systems, engine and transmission cooling devices, exhaust systems, and under-hood visual appeal through the application of automotive aftermarket accessories and practices.

#### Pre-regs:

**AUT123** 

## AUT257 AUTO AFTERMKT VEH CHASSIS MOD

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course provides students with the preparatory experience required to perform vehicle chassis modifications. Students will be exposed to current automotive aftermarket industry standards. Attention to detail is reinforced throughout student projects. This course concentrates on the modification of vehicle suspension geometry, ride height, alignment angles, tire and wheel combinations, springs, and suspension dampening components through the application of automotive aftermarket accessories and practices.

## Pre-reqs:



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## **Business/Entrepreneurial**

**Automotive** 

#### **AUT271 HONDA FUEL AND EMISSION SYSTEM**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course covers Honda-specific diagnosis, theory and repair techniques necessary to service Honda fuel and emission systems. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper fuel and emission system inspection and repair procedures. Hands-on practice will enable the students to apply these concepts to Honda vehicles. Special emphasis is placed on the environmental concerns and engine performance aspects that are related to automotive emission system service.

Pre-reqs:

AUT 221 Can be Taken Concurrently

#### AUT273 HONDA ADVANCED DIAGNOSTIC APPS

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course covers Honda-specific diagnostic and repair techniques necessary to service air bag systems (SRS) and anti-lock braking systems (ABS) on Honda vehicles. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper system inspection and repair procedures. Hands-on practice will enable the students to apply these concepts to Honda vehicles. Special emphasis is placed on the safety aspects related to air bag systems (SRS) and anti-lock braking systems (ABS).

Pre-regs:

AUT223 Can be Taken Concurrently

## **AUT275 HONDA MANUAL TRANSMISSIONS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course covers Honda-specific diagnostic and repair techniques necessary to service Honda manual transmissions. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper manual transmission inspection and repair procedures. Hands-on practice will enable the students to apply these concepts to Honda vehicles.

Pre-reqs:

AUT225 Can be Taken Concurrently



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## **Business/Entrepreneurial**

**Automotive** 

#### **AUT276 HONDA AUTOMATIC TRANSMISSIONS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course covers Honda-specific diagnostic and repair techniques necessary to service Honda automatic transmissions. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper automatic transmission inspection and repair procedures. Hands-on practice will enable the students to apply these concepts to Honda vehicles.

Pre-regs:

AUT 226 Can be Taken Concurrently

## **AUT277 HONDA COMPUTERIZED ENGINE**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course covers Honda-specific diagnostic and repair techniques necessary to service Honda computerized engine control systems. Prior to hands-on practice, the instructor will demonstrate equipment usage, Honda service materials, proper computerized engine control systems inspection and repair procedures. Hands-on practice will enable the students to apply these concepts to Honda vehicles.

**Pre-reqs:** 

AUT223 Can be Taken Concurrently

## AUT281 CAT DIFFRNTILS AND FRONT AXLES

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The purpose of this course is to provide the student with an understanding of the skills and procedures necessary to accurately diagnose and repair drive axles and differentials used on lift trucks. The course covers component identification, precision measurements of components, proper setup and adjustment, and functions of these components. The instructor will demonstrate CAT differential and axle diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self- assessment worksheet to reinforce learning objectives.

Pre-reqs:

AUT121 Can be Taken Concurrently



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## **Business/Entrepreneurial**

**Automotive** 

#### **AUT282 CAT TRANSMISSIONS**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

The purpose of this course is to teach students about the purpose and operation of transmissions used in lift trucks, specifically powershift and hydrostatic. The course covers component identification, power flow, precision measurements of components, and functions of these components. The instructor will demonstrate CAT transmission diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and self-assessment worksheet to reinforce learning objectives.

Pre-regs:

AUT121 Can be Taken Concurrently

## AUT283 CAT FUEL SYSTEMS (LP/GASOLINE)

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed to provide the student with an understanding of the skills and procedures necessary to accurately diagnose and repair gasoline and LP fuel systems used on CAT lift trucks. Included in this course are K21-K-25, GM4.3L, and TB45 fuel systems. On-unit diagnosis of mechanical and electronic fuel control systems will include the use of traditional fuel diagnostic equipment and CAT-fuel system specialty tools. The importance of safety and proper handling of LP and gasoline fuel system components will be stressed in every segment of this class. The instructor will demonstrate CAT LP and gasoline system diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a self- assessment worksheet to reinforce learning objectives.

Pre-regs:

AUT121

Can be Taken Concurrently

#### ETD222 ENGINEERING CO-OP

Credit Hours: 2 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Co-op opportunities are available to students enrolled in Engineering Technologies. Students may contact their faculty advisors or Career Services for more information.



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## **Business/Entrepreneurial**

**Automotive** 

#### ETD224 ENGINEERING CO-OP

Credit Hours: 4 Contact Hours: 40 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Co-op opportunities are available to students enrolled in Engineering Technologies. Students may contact their faculty advisors or Career Services for more information.

Pre-regs:

#### **TOY101** Intro to Toyota T-TEN

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course is the introductory course for the Toyota T-TEN program. Throughout the class students will receive a general understanding of the automotive industry and more specifically what the roll of an automotive service technician is at a Toyota dealership. Shop safety, proper tool and equipment usage, precision measurement, fasteners, fastener repair, and proper shop attire will all be covered in this course. Students will be enrolled into the Toyota T-TEN online learning system as apprentice technicians and will be required to utilize the Toyota service information system as well as the Toyota online training portal. This course is a prerequisite for all other Toyota T-TEN classes.

Pre-regs:

### **TOY102** Toyota Electrical Systems I

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This course is designed to give the student an understanding of DC electrical principles including Ohm's Law, basic circuits, semiconductors, automotive wiring and common electrical components. Emphasis will be placed on the maintenance, diagnosis and repair of basic automotive electrical systems including battery, starting, and charging systems, electrical motors, switches and relays. Students will also be introduced to computerized vehicle control systems. Laboratory periods will allow the student to develop proficiency in the use of wiring diagrams, diagnostic flow charts and hands-on techniques utilizing DVOM's and other electrical test instruments. The students will learn the Toyota six step diagnostic procedure and utilize it during laboratory activities to determine various faults on vehicles.

Pre-regs:

TOY101

Can be Taken Concurrently



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## **Business/Entrepreneurial**

**Automotive** 

#### TOY103 Toyota Steer, Susp. & Handl

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This course will cover diagnosis, service and repair of the steering, suspension, and handling systems on Toyota vehicles. Upon completion of the class students will have removed and replaced suspension components like: struts, springs, control arms, and steering knuckles. Students will be required to properly diagnose alignment concerns and align vehicles with several different suspension systems. The proper procedures for inspecting, repairing, or changing tire and wheel assembles will be taught in this course. Hydraulic and electronic power steering systems, computer controlled suspension and handling systems will also be covered in this course. Students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Upon completion of this course students will be prepared to take ASE test A-4 (Steering and Suspension).

Pre-regs:

TOY102

Can be Taken Concurrently

#### TOY104 Toyota Engine Diagnosis/Rep

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This course will cover the diagnosis, service, and repair of Toyota internal combustion engines. Upon completion of the class students will be able to state the four strokes of an internal combustion engine and explain the importance of each stroke. Students will develop the knowledge and skills to diagnose mechanical engine faults. They will be able to remove and reinstall an engine from the vehicle; and will gain experience repairing and rebuilding engines. Students will also learn how engine cooling systems and lubrication systems operate and how to diagnosis system faults. Students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Upon completion of this course students will be prepared to take ASE test A-1 (Engine Repair).

### Pre-reqs:

TOY101

## **TOY105** Toyota Engine Controls I

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This course will introduce students to the Toyota engine control system which includes all necessary computer inputs, information processing, and outputs which control engine operation. Students will learn the relationship between air, fuel, spark and compression and how the engine control system manages these. Students will be able to identify engine control inputs and outputs and describe their operation. Upon completion of this course student should have the knowledge and skills necessary to diagnose and repair concerns related to the computerized vehicle control system. Students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Upon completion of this class students will be prepared to take ASE test A-8 (Engine Performance).

### Pre-reqs:

TOY104



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## **Business/Entrepreneurial**

**Automotive** 

#### TOY106 Toyota ManTrans & Drivetrains

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This class will teach students the skills necessary to service and repair Toyota manual transmission and four wheel drive systems. Students will perform inspections, service, and repairs on clutch systems. They will also overhaul a manual transmission, manual transaxle, front differential, rear differential, and a transfer case. Students will also learn to diagnose and repair Toyota electronic four wheel drive control systems. Students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Upon completion of the course students will be prepared to take the ASE test A-3 (Manual Drivetrain and Axle).

### Pre-reqs:

TOY102

#### TOY201 Toyota Electrical Systems II

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

In this course, students will learn to diagnose and repair advanced electrical faults including shorts, opens, and high resistance faults in Toyota multiplex computer networks. In order to diagnose these concerns students will learn how to utilize the advanced features of the Toyota scan tool. Students will also learn to use advanced diagnostic equipment and procedures. Upon completion of this course students will be able to diagnose and repair the most advanced electrical problems. Students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Students completing this course are prepared to take ASE test A-6 (Electrical and Electronic Systems).

#### **Pre-reqs:**

TOY102

## **TOY202** Toyota Automotive Braking Sys

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This course will cover diagnosis, service and repair of the braking systems on Toyota vehicles. Upon completion of the class, students will have experience performing braking system service including: brake pad replacement, rotor resurface and replacement, caliper service and replacement, shoe replacement, drum resurface and/or replacement, parking brake cable replacement and adjustment, hose replacement, master cylinder replacement, and hydraulic control valve service and replacement. Students will also learn the knowledge and skills necessary to diagnose, service, and repair advanced antilock brake system faults. Students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Upon successful completion of this course students will be prepared to take ASE test A-5 (Brakes).

#### Pre-regs:

TOY201

Can be Taken Concurrently



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## **Business/Entrepreneurial**

**Automotive** 

#### TOY203 Toyota HVAC Systems

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This course will cover diagnosis, service and repair of the Toyota heating, ventilation, and air conditioning (HVAC) systems. They will understand how to connect and interpret air conditioning gauge set readings. HVAC system performance tests will be performed to determine if systems are functioning as designed. All major components of the HVAC system will be located, identified, defined, removed and reinstalled. Advanced climate control systems will also be covered in this class. Students will learn to diagnose climate control faults using schematics, specifications, and procedures retrieved from the Toyota Information System. Students will also use the Toyota scan tools, digital volt ohm meters, and other required diagnostic equipment during this class. Students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Upon successful completion of this course students will be prepared to take ASE test A-7-(Heating, Ventilation, and Air Conditioning).

TOY201

#### TOY204 Toyota Engine Controls II

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This course is designed to increase the student's understanding and diagnostic skills related to advanced Toyota engine control systems. Major areas to be covered are the identification, operation, function, and diagnosis of the following: Electronic Control Module (ECM); fuel injection systems; engine control system sensors and actuators; ignition systems; electronic throttle control systems, evaporative emission systems, variable valve timing, direct fuel injection systems, and EGR systems. Emphasis will be on solving advanced drivability concerns using all available resources: Toyota Information Systems, DVOM, oscilloscope, Toyota scan tool, and any related special service tools. In this course students will learn students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Upon successful completion of this course students will be prepared to take ASE tests A-8 (Engine Performance) and L-1 (Advanced Engine Performance).

TOY105

## TOY205 Toyota Automatic Transmission

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This course covers the diagnosis, service and repair of Toyota automatic transmissions. Participants will learn how to analyze automatic transmission power flow, learn how to select the proper automatic transmission fluid, and how to check fluid levels for transmissions with and without fluid dipsticks. Students will be required to use the proper Toyota Information System reference materials, test procedures, and specifications to diagnose transmission failures. Students will learn to evaluate proper transmission operation and to perform diagnostic tests to determine necessary repair requirements. Complete transmission overhauls will be performed during this class as well. Students will be required to validate their understanding of the topics in this class through hands on competency based lab activities. Upon completion of this course students will be prepared to take ASE test A-2 (Automatic Transmissions).

Pre-regs:

TOY204

**Business Mgt/Entrep** 



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### **BUS121 BUSINESS ADMINISTRATION**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A survey course designed to develop a comprehension of business theories and principles. Students will examine the following: American business development, management and organization, human resources, marketing, information for business strategy, decision making, finance and investment. Upon completion, students should be able to demonstrate an understanding of the above topic areas and have a foundation for studying other business subjects.

### Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

#### **BUS122 BASIC ECONOMICS**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A survey course designed to introduce students to basic economic concepts and principles of modern micro- and macro-economics. Major topic areas will include supply and demand, price system, market economies, monetary and fiscal policy and global economic issues. Upon completion, students should be able to demonstrate an understanding of the above topic areas. TMSBS Approved effective Autumn 2008.

### Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### BUS221 MICROECONOMICS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An in-depth study of microeconomic concepts and principles such as supply and demand, price elasticity, production costs, different market structures, income distribution, marginal analysis, and other issues relating to global economics. Upon completion of this course, students should be able to demonstrate an understanding of these topics and be able to apply them to business. TAG OSS004 approved Spring 2012. TMSBS approved Spring 2012.

### Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

#### **BUS222 MACROECONOMICS**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An in-depth study of macro-economic concepts and principles such as market supply and demand, unemployment and inflation, monetary and fiscal policy, national income accounting and Classical and Keynesian models. Upon completion, students should be able to apply and demonstrate an understanding of the above topics relative to today's economy. TAG approved course- OSS005 effective Fall 2005. TMSBS Approved effective Autumn 2008.

### Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### CUL119 Culinary ServSafe

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This class prepares the student to earn the ServSafe Food Protection Manager Certification sponsored by the National Restaurant Association Educational Foundation. The training will cover the concepts of: food safety and handling, good personal hygiene, time and temperature control, prevention of cross contamination, cleaning and sanitizing, safe food preparation, receiving and storing of food, methods of food handling, HACCP, food safety regulations and food borne illness. Upon completion of the course, the student will be able to take the Food Protection Manager Certification Exam.

Pre-reqs:

#### CUL120 Sanitation and Safety

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course prepares the student to use a Food Protection Certification. The training will cover the concepts of: food safety and handling, good personal hygiene, time and temperature control, prevention of cross contamination, cleaning and sanitizing, safe food preparation, receiving and storing of food, methods of food handling, HACCP, food safety regulations and food borne illness with emphasis on application in a professional kitchen. CTAG approved CTCF001 effective Spring 2018

Pre-regs:

### CUL122 FOOD FUNDAMENTALS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The Food Fundamentals course is an introduction to the development and application of fundamental cooking and techniques. The course introduces the student to entry-level fundamentals such as recipe interpretation, integrated culinary math, culinary terminology, knife skills, large and small equipment identification and use, careers in culinary arts and food service, industry professionalism and entry-level cooking procedures, practices, and techniques. CTCF005 effective fall 2018

Pre-reqs:

CUL119 Can be Taken Concurrently

And CUL120 Can be Taken Concurrently



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### CUL123 FUNDAMENTAL COOKING-PREP I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course addresses the development and application of cooking practices, procedures and techniques. The students will understand the techniques of preparation and prepare soups, stocks, sauces, and dairy items. They will use dry heat methods of cooking, moist heat cooking methods, prepare pantry items and perform garde manger (cold food preparation) duties.

### Pre-reqs:

**CUL122** 

## CUL124 Meat & Fish-Prep II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will provide training and skill development in preparing meat and fish dishes used in a culinary arts environment. Students will use a variety of preparation and cooking methods to demonstrate ability to work with meat and fish products.

#### Pre-regs:

**CUL123** 

## CUL125 Culinary Nutrition/Menu Plan

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers key concepts of menu planning including: design, writing, costing of menu items, marketing and merchandising of a menu. Also included is basic culinary nutrition information as well as research, surveys and sales analysis that are key to menu planning.

#### Pre-regs:

**CUL119** 

And CUL120



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### CUL126 FOOD PURCHASING-INVENTORY CONT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will provide Culinary Arts students with coverage of the essential concepts of purchasing, storeroom operations and fiscal responsibilities in a culinary operation. The students will be able to create market and distribution systems, design storeroom operation and inventory control procedures, determine cost controls and research product information. CTCF009 effective fall 2018

### Pre-reqs:

**CUL122** 

And ITD122

## CUL221 Bakery & Pastry-Prep III

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to offer baking and pastry preparation information and techniques. Students will focus on an introduction to baking, use of baking equipment and tools, principles of cake baking and decoration, preparation of pastries and desserts as well as career opportunities in baking.

## Pre-reqs:

**CUL122** 

And ITD122

### CUL222 Advanced Cookery-Prep IV

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides students the opportunity to develop advanced cooking skills and use advanced techniques in food preparation. Students will study cooking methods and food preparation of other cultures to develop an understanding in depth of flavors and techniques used in more complex recipes.

Pre-reqs:

**CUL124** 

Can be Taken Concurrently



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### CUL223 Catering, Beverage & Food Serv

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will provide information for students to be able to plan, coordinate and execute catering jobs, set up and manage buffets, and schedule and plan events as well as manage the events. Classical and contemporary service styles will be discussed and practiced. Students will learn to coordinate the "front of the house" and "back of the house" activities to conduct a well-planned event which is catered on or off premise. Students will understand the responsible and profitable service of alcohol in the food service industry. This course will include the Alcohol Servsafe certification.

#### Pre-regs:

**CUL122** 

## CUL225 Adv Portfolio Mgmt

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides students the opportunity to refine and improve advanced cooking techniques. Students will produce and document complex recipes and develop individual portfolios including self-critique and visual documentation that can be presented to future potential employers.

#### **Pre-reqs:**

**CUL124** 

And CUL221

#### CUL226 Pantry and Garde Manger

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides students the opportunity to learn and practice techniques and methods in cold food production. Students will produce and critique several categories of cold food including the safe production of salads, dressings, and charcuterie. Students will study methods and techniques used in both classic and contemporary kitchens.

### **Pre-reqs:**

**CUL122** 



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

### CUL230 Culinary Practicum

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 1 Lab Hours: 8 Other Hours: 0

This is a capstone experience designed for the student to put their learning into practice. The student will work with a mentor in a food service operation to gain practical experience and work in a wide range of culinary areas. The course will be a blend of work experience, job performance and a series of designated face to face meetings.

### Pre-reqs:

#### **ENT120 ENTREPRENEURSHIP**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to introduce students to the entrepreneurial process from conception to birth of a new venture. Students will examine elements in the entrepreneurial process--personal, sociological, and environmental--that give birth to a new enterprise. Critical factors for starting a new enterprise such as alternative career prospects, family, friends, role models, the state of the economy and the availability of resources will be explored. Students will be introduced to practical tools they can use to further their careers in business, both in entrepreneurship and in more traditional company environments. This course simulates the experiences that entrepreneurs undergo in conceiving, launching, and operating new businesses. The courses enables students to evaluate an entrepreneurial career for themselves. In doing so, it provides want- to-be entrepreneurs with a framework for selecting, funding, and starting their own new ventures. CTENTR001, effective Spring 2016.

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

Or ENG102 IDS102



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### ENT124 MANAGNG ENTREPRENEURIAL GROWTH

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed for students who want to manage growing companies in an increasingly professional manner while still maintaining the entrepreneurial spirit that brought the company to its current growth position and for students who want to manage larger companies to emphasize innovation and the management of opportunities rather than to concentrate on the efficient management of ongoing operations. Upon successful completion of this course, students should be able to measure economic performance and obtain information for management decision-making, management control systems for innovative companies, short-and long-run planning in owner-managed businesses, and entrepreneurship in managing growing companies.

#### **Pre-reqs:**

**ENT120** 

#### ENT223 ENTREPRENEURSHIP PRACTICUM

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 14 Other Hours: 0

This is the capstone experience where the student puts their business plan intro practice. The student will work with mentors to start to apply their entrepreneurial knowledge to real life situations. This course is based on the concept of balanced mentorship, which benefits both the student and the entrepreneur mentor. Students will be assigned to a start up firm in our Center for Entrepreneurial Studies to apply classroom knowledge to an actual work situation.

**Pre-reqs:** 

### **ENT225 GLOBAL ENTREPRENEURSHIP**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines how entrepreneurs create and manage emerging ventures in other countries and create and manage start-up emerging ventures which are global in at least one important aspect. The case analyses and classroom discussions sraw on and integrate multidisiplinary concepts, skills, and insights. - marketing, operations, finance, control, decision-making, leadership, ethics, governance, negotiations - all in the service of starting and managing entrepreneurial ventures. Upon successful completion of this course, students should be able to identify and assess business models for international start-ups, venture valuation, sources of financing, deal structuring, cross-cultural issues in entrepreneurship, creating strategic alliances, managing/leading a small multinational organization, international acquisitions, managing entrepreneurial ventures in situations of financial distress and under changing contexts, and managing global expansions of ventures.

Pre-regs:

**ENT120** 



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### MGT121 PRINCIPLES OF MANAGEMENT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an in-depth, balanced overview of management through coverage of basic management functions: planning, organizing, staffing, directing and controlling. Presents the current insights of open-systems theory, contingency theory, organization theory, organizational behavior and contemporary management science. Upon completion, students should be able to demonstrate an understanding of the above topic areas. TAG OBU012 approved effective Summer 2018.

### Pre-reqs:

**BUS121** 

Or ENT120

### **MGT122** Introduction to Sports Mgt

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will introduce students to the sports management major and the foundations of sports management as a field of study from high school to the international arena. This course will examine areas such as the history and philosophy of sports, business principles, and various private and public sector career opportunities in the sports and recreation industry.

## Pre-reqs:

**BUS121** 

#### MGT221 SUPERVISION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is organized around the employee in order to emphasize the importance of working with others. Some specific areas covered are: the role of the supervisor, basic concepts of office functions, management of information, motivation, sources of power and authority, work simplification and group dynamics. Upon completion, students should be able to apply current management theory to situations that occur at the supervisory level.

### **Pre-reqs:**

MGT121



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### MGT222 SMALL BUSINESS MGT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on launching and operating a small business. Developing a business plan is an integral part of the coursework. Upon completion of the course, students will have an understanding of the multitude of issues involved in owning a small business and how to develop and utilize a business plan in a small business.

#### Pre-regs:

ACC128

And MGT121

#### MGT223 BUSINESS DECISION MAKING

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course utilizes a multitude of managerial business decision making skills that culminates your business management classroom experience. It involves an actual competitive team-based decision making computer simulation. The course includes in-depth analysis and research into production, inventory, finance, research and development, pricing, product placement, and industry competitiveness decisions. The course requires teamwork and an understanding of all the areas of business decision making to successfully manage a corporation. Upon completion of this course a student should have a greater understanding of the impact of teamwork, functional department interactiveness, and competitive market analysis on everyday business decisions.

## Pre-reqs:

And ACC128

Or ACC133

MGT121

#### MGT224 HUMAN RESOURCE MGT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Introduction to the effective management of human resources in today's organizations. Emphasis is on the policies and programs necessary to attract, retain and motivate employees. Subjects covered include the legal framework of human resource management, staffing, human resource development, motivation and leadership, compensation, appraisal systems, safety and labor, and management relations. Upon completion, students should be able to demonstrate an understanding of the management of the human resource.

#### Pre-reqs:

MGT121



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### MGT227 OPERATIONS MANAGEMENT

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course examines the concepts for designing, planning and improving manufacturing and service organizations. It covers many of the computational techniques applied to problems of efficiently converting inputs into outputs. The areas covered include: project management, forecasting, capacity planning, work measurement, quality and statistical quality control, supply chain, plant location, layout scheduling, materials management and maintenance. Upon completion, students should be able to demonstrate an understanding of operations management principles.

### Pre-reqs:

MGT121

And MTH108

Or MTH124

Or MTH125

#### MGT232 INTERNATIONAL BUSINESS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on the economic, social and cultural considerations of doing business overseas. The globalization of markets and the growth of overseas business ventures is explored. The need to develop varied techniques for managing people from other cultural backgrounds, the means of minimizing risks in financial transactions, and development of systems for coordinating and controlling operations will be stressed. Techniques to overcome international business barriers are covered. Upon completion, students should be able to demonstrate an understanding of the economic, social and cultural considerations of doing business worldwide.

### Pre-reqs:

**BUS121** 

## MGT235 Facility & Event Mgt for Sport

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides students with an understanding of sports facility and event management. Sports facility management consists of identifying goals of the event and coordinating people in the organizations involved to achieve those goals. Sports facility management consists of planning and designing a sports facility, staffing of management, facility marketing, developing revenue streams, facility scheduling, and general facility maintenance in order to host the sporting events.

### Pre-reqs:

And ACC132

MGT121 And MKT121



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### MGT236 Sports & Ethics

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to assist students in examining and developing philosophies, values and moral reasoning skills to make ethical decisions in the sports management field. This course examines topics including violence, doping, racial and gender equity, coaching, commercialization, enhancing stimulants, eligibility, violence, sportsmanship and code of ethics in sports. Students will examine current and historical events in sports, rules, laws and governing organizations.

Pre-reqs:

#### MGT237 Safety & Health Mgmt

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 0 Other Hours: 0

This course provides a comprehensive study of occupational safety and health in a contemporary workplace. Content will emphasize risk management, legal issues surrounding work health and safety, and workplace hazard reduction. Students will apply updated OSHA standards to topics such as workplace violence, natural disasters, and terrorism.

#### **Pre-reqs:**

MGT224

### MGT238 Strategic Staffing

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 0 Other Hours: 0

This course develops a thorough understanding of strategic staffing. Students will acquire the knowledge base necessary to identify, attract, select, and retain quality staff. The course will provide education on legal and regulatory issues surrounding staffing while reinforcing competitive business practices in the current global economy.

## Pre-reqs:

**MGT224** 



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### MGT239 Compensation & Benefits

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 0 Other Hours: 0

This course is a comprehensive study of the theoretical and legal perspectives governing the practical application of compensation and benefits. Emphasis for the course will be on job evaluations, wage surveys, incentives, pay equity, insurances, and worker's compensation.

#### Pre-regs:

**MGT224** 

#### MKT121 PRINCIPLES OF MARKETING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is an introduction to the important role that marketing plays in the successful operation of various enterprises that operate in both the domestic and international arenas. Emphasis is on developing marketing strategies needed to compete effectively in today's rapidly changing competitive environment. Customer buying behavior, market segmentation, quality customer service, the elements of product, distribution, pricing and promotion strategies are examined. Upon completion, students should be able to demonstrate an understanding of the above topic areas. OBU006

#### **Pre-reqs:**

**BUS221** 

## MKT221 SALES

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The selling process is introduced in detail. Securing and opening the sales interview, delivering the sales presentation, answering objections and closing the sale are all incorporated during the semester. The student will be required to give a sales presentation in class. Upon completion, students should understand the selling process and be able to make an effective sales presentation.

## Pre-reqs:

MKT121



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### MKT222 ADVERTISING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Provides an overview of the field of advertising, including its place in marketing, media considerations, design principles, budgeting and planning. Included is a project consisting of the design of a total campaign. Upon completion, students should be able to demonstrate an understanding of the field of advertising. OCM012 TAG approved Spring 2012.

#### Pre-regs:

**MKT121** 

## **MKT225** Sports Sales

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will introduce students to an analysis of effective skills necessary to the sales process found in the sports world. Students will develop effective communication skills, selling techniques, and examine the role of technology in the sports sales industry. Fairness, ethics and honesty in terms of sales will be stressed.

#### **Pre-reqs:**

MKT121

### MKT226 SUPPLY CHAIN MANAGEMENT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An introduction to the processes and activities associated with cost-effective industrial procurement and the internal management of all materials and equipment needed by a manufacturer to produce products or provide services. Upon completion, students should be able to demonstrate an understanding of the processes and activities associated with cost effective purchasing. effective Summer 2016: CTSCM001

#### Pre-regs:

MKT121



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### MKT227 CONSUMER BEHAVIOR

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides in-depth knowledge of consumer buying behavior. It includes the study of the various cultural, social, personal and psychological factors that influence consumer market behavior and strategy. Upon completion, students should be able to demonstrate an understanding of the factors that influence consumer behavior.

#### Pre-regs:

MKT121

#### MKT229 MARKET PLANNING

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This is a capstone course that focuses on the significant procedures, processes and analysis that leads the student through the comprehensive market planning process. Methodology includes market research, company and industry analysis, and the development of the processes required in the completion and presentation of the market plan. Upon completion, students should be able to demonstrate an understanding of the creation, analysis, and preparation in the completion of the market planning process.

#### Pre-regs:

MKT121

### MKT233 MARKET RESEARCH

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides knowledge and application to the Market Research method and practices to be successful in today's business arena. It includes the study of the role of marketing research, research design, data collection skills, communication research results and the management of marketing research. Upon completion, students should be able to demonstrate an understanding and practical application of field of marketing research.

#### **Pre-reqs:**

MKT121

And MTH108



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## **Business/Entrepreneurial**

**Business Mgt/Entrep** 

#### MKT236 E-MARKETING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The new processes and new media that have been ushered in by the electronic age are studied in the context of more traditional marketing practices. Marketing to consumers as well as other organizations and finding sources of information virtually are considered. This course examines the theory, application, and strategies of electronic marketing. It will examine the use of web pages in marketing ideas, goods, and services in "e-commerce". This course will also cover the skills and knowledge to develop and implement e-commerce marketing activities for businesses conducting transactions in an online environment.

### Pre-reqs:

MKT121

#### **Business Studies**

#### BTD201 BUS INDEPENDENT STUDY

Credit Hours: 1 Contact Hours: 10 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Business Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean for Business Technologies will determine course content, meeting schedules and credit hours.

#### Pre-regs:

#### BTD202 BUS INDEPENDENT STUDY

Credit Hours: 2 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Business Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean for Business Technologies will determine course content, meeting schedules and credit hours.



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## **Business/Entrepreneurial**

**Business Studies** 

#### BTD203 BUS INDEPENDENT STUDY

Credit Hours: 3 Contact Hours: 30 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Business Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean for Business Technologies will determine course content, meeting schedules and credit hours.

Pre-regs:

#### BTD204 BUS INDEPENDENT STUDY

Credit Hours: 4 Contact Hours: 40 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Business Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Business Technologies will determine course content, meeting schedules and credit hours.

**Pre-reqs:** 

### BTD222 BUSINESS CO-OP

Credit Hours: 2 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Co-op opportunities are available to students enrolled in Business Technologies. Students may contact their faculty advisors or Career Services for more information.



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## **Business/Entrepreneurial**

**Business Studies** 

BTD223	DHCI	NESS	CO	$\Delta \mathbf{p}$
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Credit Hours: 3 Contact Hours: 30 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Co-op opportunities are available to students enrolled in Business Technologies. Students may contact their faculty advisors or Career Services for more information.

Pre-reqs:

### BTD224 BUSINESS CO-OP

Credit Hours: 4 Contact Hours: 40 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Co-op opportunities are available to students enrolled in Business Technologies. Students may contact their faculty advisors or Career Services for more information.

Pre-regs:

### BTD225 SPECIAL TOPICS

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Special topics in Business Technology Division. Repeat registration permitted.



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## **Business/Entrepreneurial**

**Business Studies** 

#### BTD226 SPECIAL TOPICS

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0 Special topics in Business Technology Division. Repeat registration permitted.

Pre-reqs:

### **BTD227 SPECIAL TOPICS**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 Special topics in Business Technology Division. Repeat registration permitted.

Pre-reqs:

### BTD228 SPECIAL TOPICS

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0 Special topics in Business Technology Division. Repeat registration permitted.

Pre-reqs:

## **Educ/Liberal Arts/Math**

**Arts, Humanities & Rdg** 



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## Educ/ Liberal Arts/ Math

Arts, Humanities & Rdg

#### COM121 EFFECTIVE SPEAKING

Credit Hours: 3 Contact Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to introduce students to the process of researching, writing, and presenting speeches. Students will explore the basic theories and principles of oral communication and will write and deliver formal speeches throughout the course. Areas of concentration include researching, outlining, organizing, language, verbal and nonverbal delivery, critical listening, and persuasion. TAG OCM004, summer 2007 TMCOM, Autumn 2008

#### Pre-regs:

#### COM122 INTERPERSONAL COMMUNICATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines the theory and application of interpersonal communication concepts and principles, emphasizing application toward becoming a more competent interpersonal communicator. Areas of study include perception, culture, listening, nonverbal communication, relationships, and conflict. This course is Ohio TAG approved. OCM002 effective Summer 2008. Ohio Transfer Module Approved effective Autumn 2008.

#### Pre-regs:

### COM123 SMALL GROUP COMMUNICATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines the role of the individual in small social and working groups. The emphasis is on communication verbal and non-verbal to become a group member capable of participation, problem-solving, and leadership. TAG approved course- OCM003 effective Summer 2007.

### Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102



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## Educ/ Liberal Arts/ Math

**Arts, Humanities & Rdg** 

#### COM125 INTRO TO COMMUNICATION THEORY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will provide students with a survey of the basic elements of communication in a variety of contexts including interpersonal, group, organizational, intercultural, and mass media. Analysis and application of communication theories is emphasized as well as the study of current communication theory research. This course is Ohio TAG approved. OCM001 effective Summer 2008.

### Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: ACT Composite - 22

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102

Or IDS102

Or IDS102

Or IDS102

## COM126 INTRO TO MASS COMM

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces students to the role of media in contemporary, political, and cultural contexts as well as the global stage. Topics of study include the evolution of media technology, relationships between mass communication and other forms of communication, and the philosophical and ethical issues that arise in mass communication. TAG approved Spring 2012 OCM006.



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## Educ/ Liberal Arts/ Math

**Arts, Humanities & Rdg** 

#### COM223 INTERVIEWING I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to introduce students to the art of interviewing. Students will study the principles and practices of interviewing as well as the application of effective interviewing methods in real-life and role-playing assignments. Topics of exploration include question strategies, approaches, structures and types of interviews from both aspects of interviewer and interviewee.

Pre-regs:

#### COM225 SEX, GENDER, AND CULTURE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces students to the study of communication and its relation to sex, gender, and culture. Students will explore the complexities of gender communication in interpersonal relationships, the educational environment, the media, and the workplace. Theoretical approaches to gender development, cultural construction and reconstruction of gender, and gender communication in practice will be examined.

**Pre-reqs:** 

### COM227 INTERCULTURAL COMMUNICATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is an introduction to the study of culture and co-cultures and how they are influenced by and effect communication. This course provides an overview of study in communication between and within cultures and co-cultures. In an increasingly global society, being able to communicate effectively with people from different cultures and diverse backgrounds is imperative. Toward that end, this course emphasizes a practical application of intercultural communication concepts and principles, encouraging students to become more competent communicators in a culturally diverse world.



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## Educ/ Liberal Arts/ Math

Arts, Humanities & Rdg

#### COM228 NONVERBAL COMMUNICATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces students to important nonverbal concepts, theories, and typologies. Students will learn to interpret and manage nonverbal communication behaviors as they relate to interpersonal relationships in both personal and professional contexts. The course also provides students with an opportunity to analyze and interpret nonverbal elements of mediated communication messages.

### Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

#### COM229 PERSUASION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides a foundation in the application of theories, principles, and strategies of social influence in a variety of contexts. Empirical investigations of persuasion, social influence, and compliance-gaining will be studied, in addition to strategies and techniques of persuasion and persuasion resistance relating to a wide variety of real-life communication contexts.

### Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 



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## Educ/ Liberal Arts/ Math

**Arts, Humanities & Rdg** 

#### HIS121 U.S. HISTORY I -TO 1877

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover the major trends and ideas in American history from the first settlements in North America to the end of the Civil War and Reconstruction. The economic, social, political and religous beliefs and issues affecting the growth and development of the American nation will be examined, along with the issues that produced conflict in the formative years of our history. Topics include: early settlements and immigration, the growth of the colonies, the American Revolution, westward expansion, sectional conflict and the Civil War. TAG approved OHS010 effective Spring 2012. TMAH approved Spring 2012.

Pre-regs:

#### HIS122 U.S. HISTORY II FROM 1877

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover the major trends and ideas in American history from the end of Reconstruction to the present. The economic, social, political and religious beliefs and issues affecting the growth and development of the American nation will be examined. Topics discussed will include Industrialization, Immigration, Suffrage, the Great Depression, World War II, the Cold War, Vietnam, the youth movement of the 1960s, Watergate, the Reagan Era, and the United States in the 21st Century.

**Pre-reqs:** 

## HIS221 World Civ to 17th Century

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will look at world history from early human societies through the mid-17th century.

Pre-regs:



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## Educ/ Liberal Arts/ Math

**Arts, Humanities & Rdg** 

#### **IDS101 TECHNICAL COMPREHENSION**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course helps students develop and apply reading, vocabulary, study and critical thinking skills to enhance their success with college-level work. This course requires a computerized reading software program.

#### Pre-regs:

#### **IDS102 CRITICAL ANALYSIS**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course teaches vocabulary skills, critical comprehension, and analysis of college-level reading material. The course requires a computerized reading software program.

#### **Pre-reqs:**

Or Test & Score: ACT Reading - 13

Or Test & Score: Accuplacer Reading - 040

Or Test & Score: Compass Reading - 058

Or Test & Score: NextGen Accuplacer Reading - 227

Or Test & Score: SAT Verbal - 390

Or CAL101 IDS101

### IDS115 College & Career Succ Skills

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to aid students in gaining success skills needed for constructive and efficient learning both in college and other life settings. Topics include punctuality and discipline, study and test-taking skills, critical thinking/problem solving, library use, and a variety of techniques in oral and written communication. Other workplace topics such as reliability, teamwork and collaboration, creativity/innovation, leadership, professionalism, techniques to demonstrate a commitment to being drug-free, and respect for global/intercultural awareness will be explored. Students will also self-advocate and articulate their strengths, knowledge, and experiences relevant to success in a job for post-secondary education.



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# Educ/ Liberal Arts/ Math

**Arts, Humanities & Rdg** 

## PHL122 ETHICS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Uses historical and contemporary theories to examine the role and application of ethics to a variety of personal and professional modern-day situations. TAG approved course- OAH046 effective summer 2020. TMAH Approved effective Autumn 2008.

Pre-regs:

#### **Education**

## ASL121 INTR TO DEAF CULTURE COMMUNTY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to provide students with an overview of the Deaf Culture and Community; history of American Sign Language; deafness and its causes, community services available to the deaf community, American with Disabilties Act laws. Five observation hours are required.

Pre-regs:

## ASL122 AMERICAN SIGN LANGUAGE I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course is the first in a series of three American Sign Language courses and is based on the integration of learning outcomes across interpersonal, receptive and expressive modes of communication. Students accomplish real-world communicative tasks in culturally appropriate ways as they gain familiarity with products, practices, and perspectives of American Deaf culture. Students learn grammar, vocabulary, structures, and spatial orientation to enable them to meet functional performance goals at this level and to build a foundation for continued language learning. During this course, students generally perform in the novice range, although a few abilities may emerge in the intermediate range. Ten Community Learning Experience (CLE) hours are required. TAG approved--effective Summer 2016 OFL025 (TAG approved sequence (ASL124 and ASL122) OFL029 effective spring 2018)

Pre-regs:



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# **Educ/Liberal Arts/Math**

**Education** 

## ASL123 INTRODUCTION TO INTERPRETING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces the student to the philosophy of interpreting, history and models of interpreting; ethical issues; physical, social and psychological factors. Five observation hours are required.

Pre-regs:

#### ASL124 AMERICAN SIGN LANGUAGE II

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course is the second in the series of three American Sign Language courses and is based on the integration of learning outcomes across interpersonal, receptive, and expressive modes of communication. Students accomplish real-world communicative tasks in culturally appropriate ways as they gain familiarity with products, practices, and perspectives of American Deaf culture. Students learn grammar, vocabulary, structures, and spatial orientation to enable them to meet functional performance goals at this level and to build a foundation for continued language learning. During this course, students perform better and stronger in the novice range while some abilities emerge in the intermediate range. Ten Community Learning Experience (CLE) hours are required. TAG approved OFL026 effective spring 2018 (TAG approved sequence (ASL124 and ASL122) OFL029 effective spring 2018)

Pre-regs:

ASL122

## ASL221 AMERICAN SIGN LANGUAGE III

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course is the third in a series of three language courses and is based on the integration of learning outcomes across interpersonal, receptive, and expressive modes of communication. Students accomplish real-world communicative tasks in culturally appropriate ways as they gain familiarity with products, practices, and perspectives of American Deaf culture. Students learn grammar, vocabulary, structures, and spatial orientation to enable them to meet functional performance goals at this level and to build a foundation for continued language learning. During this course, students can consistently perform in the novice range while more abilities emerge and develop in the intermediate range. Ten Community Learning Experience (CLE) hours are required. TAG approved OFL027 effective spring 2018

Pre-reqs:

ASL124



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# Educ/ Liberal Arts/ Math

**Education** 

#### ASL222 AMERICAN SIGN LANG PRAC/SEM

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 0 Other Hours: 14

ASL Practicum and Seminar is a 210 hour supervised educational experience. This course will allow students to observe and practice signing in actual situations. Students will be able to apply the skills and knowledge learned in the classroom. Students will be assigned to specific community sites and will be supervised by a staff person from the community agency. This is a capstone course.

## Pre-reqs:

ASL123

And ASL221

Can be Taken Concurrently

# EDU121 INTRO EARLY CHILDHOOD EDUC

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This introductory course provides a general introduction to the field of early childhood education as well as related services that support children and their families, birth to age 5. This course is intended for those who are interested in the field of early childhood as well as those who are still undecided but are considering a career working with young children. Content in this course provides an overview of the profession of early childhood education and the role of the teacher/caregiver. It explores the history of early childhood education, major models and programs that support and/or educate young children, the theories and practices that are the foundations for such programs, and current issues in the classroom/child setting. Thirty observation hours are required. CTAG CTECE001 effective Spring 2018

# Pre-regs:

Or Test & Score: ACT English - 18

Or Test & Score: Accuplacer English/Writeplacer - 5

Or Test & Score: Compass English - 070

Or Test & Score: HS English Proficiency - 3

Or ENG011

**ENG101** 

Or ENG105

# EDU122 CURRICULUM DESIGN AND INS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Studies theory and practice of instructional design and delivery for children birth to eight. Goal-setting, curriculum design, lesson planning and instructional methods based on NAEYC guidelines. Emphasis is placed on developmentally-appropriate, integrated and thematic instruction. Skill development is fostered in observing and recording behavior and evaluation/assessment of children's needs, levels and progress. Includes use of a wide range of educational media. Ten observation hours required.

# **Pre-reqs:**

**EDU131** 



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# Educ/ Liberal Arts/ Math

**Education** 

### EDU123 Health, Safety, and Nutrition

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

In this course, students will examine and discuss content and issues related to the health, safety, and nutrition of young children birth through age 5. Students will explore information that relates to the development of safe learning environments, healthy nutrition, and other positive interactions that support optimal growth and development of young children. Ways to engage the family in supporting these practices as well as licensing rules and information about requirements will be included. Five observation hours are required. CTAG approved CTECE002 effective Spring 2018

# Pre-regs:

**EDU121** 

Or EDU130

Or EDU131

#### EDU124 INFANT TODDLER CURRICULUM

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course engages participants in exploration and discussion about high-quality care giving and developmentally appropriate practices when engaging with infants and toddlers and their families. The importance of quality environments that support development, language and literacy, family engagement, advocacy, positive guidance, and professionalism are discussed as they relate to required standards and the care of infants and toddlers. Five observation hours are required. CTAG approved CTECE003 effective Spring 2018

# **Pre-reqs:**

**EDU131** 

## **EDU126 EDUCATIONAL TECHNOLOGY**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Encompasses effectively identifying, locating, evaluating, designing, preparing and efficiently using educational technology as instructional resources in the classroom as related to principles of learning and teaching. Students will develop increased classroom communication abilities through lectures, discussions, modeling, laboratory experiences and completion of a comprehensive project

# Pre-reqs:



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# Educ/ Liberal Arts/ Math

**Education** 

## EDU127 INFANT AND TODDLER GROUP CARE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The needs of infants and toddlers are unique. This course introduces principles of development and the fundamental needs of children from birth to three who are in group care settings. This class will explore ways of creating environments for infants and toddlers group care that fosters optimum social, emotional, physical, and congnitive development. Five observation hours required.

## Pre-reqs:

**EDU131** 

#### EDU128 RESPVE INFANT AND TODDLER ENV

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Infants and toddlers need to have an environment that is responsive to their needs and allows for safe exploration. Designs for safe yet nurturing indoor and outdoor environments will be explored. This course will also define various kinds of routines and experiences that will help to support children's development and learning by using appropriate materials and teaching strategies for each age group. Five obervations required.

#### **Pre-reqs:**

**EDU131** 

# **EDU129 RELSHP DEV FOR INFANTS/TOD**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Research indicates that infants within the first three months can detect and imitate others' behaviors and expressions. This course will focus on the child's emerging ability to become secure, express feelings, develop self-awareness and self-regulation that will help to establish secure and trusting attachments with their caregivers. This class will focus on the social-emotional development and how to develop strategies that enhance that area of development.

Pre-reqs:

**EDU127** 

Can be Taken Concurrently



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# Educ/ Liberal Arts/ Math

**Education** 

## EDU130 INTRO TO THE TEACHING PROFESSN

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This introductory course explores the purposes, organizations, and outcomes of schooling from the perspectives of the field of social foundations in education. Candidates undertake critical inquiry into teaching as a profession. Licensure requirements, teachers' legal responsibilities, and the accountability of public schools are also explored. TAG OED007 approved Spring 2018, CTAG CTED001 approved Summer 2013

## Pre-reqs:

Or Test & Score: ACT English - 18

Or Test & Score: Accuplacer English/Writeplacer - 5

Or Test & Score: Compass English - 070

Or Test & Score: HS English Proficiency - 3

Or Test & Score: GED Reasoning Through Lang Art - 1

Or ENG011

Or ENG011

Or ENG101

ENG105

Or ENG124

# **EDU221 LANGUAGE ARTS**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Examines strategies and techniques for supporting and encouraging young children's emerging literacy development, including pre-writing/writing, pre-reading, reading and language development. Includes orientation to children's literature, application of the whole language approach and utilization of children's interest. Five observation hours required.

# Pre-reqs:

**EDU122** 

Or EDU124



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# Educ/ Liberal Arts/ Math

**Education** 

## EDU223 COMMUNITY & FAM BASED PR

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explores educational considerations for teachers including the policies, theories, practices, skills, and knowledge of home, school, and community partnerships. Candidates will examine the multiple influences on the whole child; accessibility of community services and supports; ethical, practical, and culturally competent decisions to foster family engagement; knowledge and skills needed to address family structure, socio-cultural and linguistic backgrounds, identities and customs, and advocacy for children and families. Five volunteer/observation hours are required. TAG approved OED011 effective spring 2019

# Pre-reqs:

**EDU121** 

Or EDU130

#### EDU224 EARLY CHILDHOOD PROG ADM

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Examines key aspects of starting and operating various types of early childhood programs. Policies/procedures, legalities, supervision, finances, planning and organizing, and personnel management are emphasized.

# Pre-reqs:

**EDU121** 

Or EDU130

## **EDU225 THE EXCEPTIONAL CHILD**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This is a survey course to prepare all educators to teach diverse learners, including those with exceptionalities. It covers developmental characteristics, assessment methods, intervention strategies, and ethical principles for students in education and community settings. TAG OED009 approved Spring 2018

# Pre-reqs:

**EDU121** 

Or EDU130

Or EDU131



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# Educ/ Liberal Arts/ Math

**Education** 

## **EDU227 ECE Practicum & Seminar**

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 0 Other Hours: 14

A 210-hour, supervised experience working in the early childhood education/caregiving setting. Open only to Early Childhood Education Technology majors. Weekly seminar participation required.

# Pre-reqs:

EDU124

And EDU132

And EDU221

Or EDU232

And EDU235

Can be Taken Concurrently

# **EDU228 PHONICS FOR YOUNG CHILDREN**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Explores the theory and role of phonics and phonemics awareness as well as current research regarding phonics instruction.

# Pre-reqs:

Or ECE221

EDU221

# **EDU229 EDUCATIONAL PSYCHOLOGY**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explores major theories of human development, learning, and motivation. Planning of instruction, teaching strategies, assessment, classroom management, and diversity of learners are examined. Authentic educational practices and application of research in these areas are also emphasized. TAG OED008 approved Spring 2018

## Pre-regs:

**EDU130** 

Or EDU131



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# Educ/ Liberal Arts/ Math

**Education** 

## **EDU232** Literature Across the Curricul

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on current issues, research, and effective practices regarding the use of children's literature across the early childhood classroom curriculum. Students will learn how to select quality children's books for use in a variety of content areas, develop respect and appreciation for numerous types of literature, authors, illustrators, and poets. Students will plan lessons that use children's literature to effectively support and enrich instruction in a variety of classroom settings. Five observation hours are required.

# Pre-reqs:

**EDU122** 

# **EDU235** Incl Class for Young Child

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Definitions, causes, and characteristics of students identified with mild to moderate socio-emotional/behavioral and physical disabilities are studied. Social, educational, physical and emotional implications of learning and development are examined. Methods of assessment, interventions, and accommodations based on developmentally and individually appropriate procedures are presented. The range of service needs are explored using an interdisciplinary approach. Five field observation hours are required.

#### **Pre-reqs:**

EDU225

# **English**

## ENG010 INTRODUCTION TO ACAD WRITING

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0

This course is a writing-intensive course which emphasizes the composition process through individualized and group instruction in a workshop setting. It engages students in the writing habits, strategies, and skills needed to become confident, successful college writers.

Pre-reqs:



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# Educ/ Liberal Arts/ Math

**English** 

#### ENGO11 ACADEMIC WRITING

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course provides supplementary instruction for students who are co-enrolled in College Composition (ENG124). This course is designed to enhance student success, providing intensive individualized instruction and practice in major components of drafting, such as process writing, audience awareness, and critical thinking.

## Pre-reqs:

Or Test & Score: ACT English - 16

Or Test & Score: Accuplacer English/Writeplacer - 4

Or Test & Score: Compass English - 050

Or Test & Score: SAT Verbal - 450

ENG010

Or ENG103

## **ENG024** Writing Workshop

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides additional instructional support for students who are co-enrolled in ENG124. The course is designed to assist students in developing academic writing and reading strategies and skills needed to successfully complete ENG124 assignments and curriculum. Course work includes practice and application of the major components of composition, such as process writing, audience awareness, critical thinking, and textual analysis through individualized and group instruction.

## Pre-regs:

# **ENG124 COLLEGE COMPOSITION**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course emphasizes writing based on reading response with review of essay development, grammar, and punctuation. Emphasis is on the process of drafting, revising, and editing to achieve clarity. A research project requires APA or MLA documentation. TMEC Approved effective Autumn 2008.

#### **Pre-regs:**

Test & Score: ACT English - 18

Or Test & Score: Accuplacer English/Writeplacer - 5

Or Test & Score: Compass English - 070

Or Test & Score: HS English Proficiency - 3



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# Educ/ Liberal Arts/ Math

**English** 

## ENG124 COLLEGE COMPOSITION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course emphasizes writing based on reading response with review of essay development, grammar, and punctuation. Emphasis is on the process of drafting, revising, and editing to achieve clarity. A research project requires APA or MLA documentation. TMEC Approved effective Autumn 2008.

## Pre-reqs:

Or Test & Score: GED Reasoning Through Lang Art - 1

Or ENG011 Can be Taken Concurrently
Or ENG024 Can be Taken Concurrently

Or ENG101 Or ENG105

# ENG125 TECHNICAL EDITING AND LAYOUT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will introduce students to the editing process and teach students the basic of design layout. Students will practice both hardcopy and electronic editing and proofreading, as well as study and discuss a variety of editorial approaches.

# Pre-reqs:

**ENG124** 

## ENG126 TECHNICAL GRAMMAR AND STYLE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an intense review of modern English grammar, style, and punctuation, and examines how these subjects pertain to current technical writing.

## Pre-regs:



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# Educ/ Liberal Arts/ Math

**English** 

## ENG221 TECHNICAL REPORT WRITING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course stresses clarity, logic and appropriate organization in informal and formal technical reports. An oral presentation/proposal may be required. TMEC Approved effective Autumn 2008. Ohio Transfer Module Approved Spring 2012 TME002.

# Pre-reqs:

ENG124

## **ENG227 WRITING FOR MEDIA**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers writing for the following media: web, broadcast, and scriptwriting. Students examine basic issues of design and are introduced to stylistic and content requirements involved with creating media-specific text.

#### **Pre-reqs:**

ENG124

# **ENG228 WRITING FOR THE WEB**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Writing for the Web is designed to introduce students to the unique writing style, issues, and audience associated with writing for the web and digital media. Students will come to understand how users read on the web, the dual nature of language and aesthetics in web writing, flow and construction of information on the web, language appropriateness and usage, and the relationship between audience, message, and language.

## Pre-regs:



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# Educ/ Liberal Arts/ Math

**English** 

## ENG229 GRANT WRITING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Students will study the general and varied requirements of grant writing in a diversity of public and private areas. Hands-on practice will result in a completed grant or simulated grant of some complexity by the end of the semester.

# Pre-reqs:

**ENG124** 

#### ENG230 BUSINESS COMMUNICATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides a realistic sampling of varied forms of communication. During the course of the semester, students will write memos, letters, description, and instructions; conduct research; practice conducting simulated business meetings featuring reports and graphic aids; and develop skills in interviewing and resume creation. The importance of working with others is stressed throughout the class. TMEC Approved effective Autumn 2008. OTM approved for TME002 effective Fall 2011.TAG approved Spring 2012 OBU005.

#### **Pre-reqs:**

ENG124

# **ENG231 COLLEGE COMPOSITION II**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will build on the skills and knowledge obtained in College Composition including research and inquiry. Students will develop an understanding of rhetoric, argument, and language as they explore and write about complex topics in formal papers. TMEC Approved effective Spring 2010.

# Pre-reqs:



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# Educ/ Liberal Arts/ Math

**English** 

## ENG232 SCRIPTWRITING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will focus on the creation of scripts for corporate marketing, training and educational videos. Narrative structure and dramatic storytelling will be employed in the creation of the scripts.

## Pre-regs:

And ENG124

ENG227

#### ENG233 BRITISH LITERATURE: MED TO 1785

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers British literature from the Middle Ages to the early modern period. Students will read, discuss, and write about works by British authors in their historical and cultural contexts. Emphasis will be placed on the critical reading of the works and techniques used to analyze them. Course is TAG approved OAH055 effective Spring 2010. TMAH Approved effective Spring 2010.

# Pre-reqs:

**ENG124** 

## ENG234 BRITISH LIT:1785 TO PRESENT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers British literature from the Romantic to contemporary periods. Students will read, discuss, and write about works by British authors in their historical and cultural contexts. Emphasis will be placed on critical reading of the works and techniques used to analyze them. TMAH Approved effective Spring 2010. TAG approved OAH056 effective Summer 2010.

## **Pre-reqs:**



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# Educ/ Liberal Arts/ Math

**English** 

## ENG235 INTRO TO SHAKESPEARE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is a study of representative plays and poetry of William Shakespeare. Students will read, discuss, and write about the works in their historical and cultural contexts. Emphasis will be placed on the critical reading of the works and techniques used to analyze them. TMAH Approved effective Spring 2016.

## Pre-regs:

**ENG124** 

#### ENG236 AMERICAN LIT: COLONIAL to 1865

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course covers American Literature from the time of Native Americans to the Civil War. Students will read, discuss, and write about works by American authors in their historical and cultural contexts. Emphasis will be placed on critical reading of the works and techniques used to analyze them. TAG OAH053 approved Spring 2012. TMAH approved Spring 2012.

#### **Pre-reqs:**

ENG124

# ENG237 AMERICAN LIT:1865 TO PRESENT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course surveys American Literature from the mid- to late-nineteenth century to the present. Students will read, discuss, analyze, and write about works by American authors in their historical and cultural contexts. Emphasis will be placed on critical reading of the works and techniques used to analyze them. THAH approved Spring 2012. TAG approved Summer 2012 OAH054.

## Pre-regs:



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# Educ/ Liberal Arts/ Math

**English** 

## ENG238 INTRO TO CREATIVE WRITING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Students will study and practice creative writing by critically analyzing creative writing strategies and experiencing a writing workshop to create their own texts.

# Pre-reqs:

**ENG124** 

#### ENG239 FILM APPRECIATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Film Appreciation will introduce students to the way films are put together and how they transmit story and ideas to an audience. Students will learn about narrative form, film style, genre, etc., as well as film criticism and theory. OTM approved TMAH, effective summer 2020.

#### **Pre-reqs:**

ENG124

# **ENG240 WOMEN'S LITERATURE**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explores representative works by women of diverse eras, cultures, historical, social and literary perspectives. Emphasis will be placed on critical reading of the works and techniques used to analyze them, especially in terms of race, ethnicity, class, sexual orientation, and cultural context. Through this analysis, students will gain knowledge and understanding of women's role in the literary tradition and how their roles and views of themselves change and are reflected in their writing. OTM approved TMAH, effective summer 2020

#### **Pre-reqs:**



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# Educ/ Liberal Arts/ Math

**English** 

## ENG241 MAJOR MODERN WRITERS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explores the writing of major American and British authors of the twentieth century and after. Students will read, discuss, and write about works by these authors in their historical and cultural contexts. Emphasis will be placed on critical reading of the works; techniques used to analyze them; and their social, historical, and literary significance in relation to the twentieth century and after.TMAH Approved effective Spring 2016.

#### **Pre-reqs:**

**ENG124** 

#### ENG250 TECHNCL COMMUNICATNS INTERSHIP

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Students will work with the student newspaper advisors and staff during a specified period of time with a member of the English Department at Stark State College serving in an advisory capacity. This is a non-paid internship. Successful completion of the internship will require confirmation by the representative of the student organization and the student's advisor that obligations and objectives have been met. Can only be completed in the student's final semester at Stark State College.

#### Pre-regs:

# SPN100 ELEMENTARY SPANISH I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course incorporates the five world-readiness standards for learning languages – Communication, Communities, Comparisons, Connections, and Cultures – to give students the ability to undertake real-world linguistic tasks in Spanish across a wide range of topics and settings. The communication methods used to incorporate the standards are interpersonal, interpretative, and presentational to enable students to achieve a novice-mid to novice-high level of performance. Students learn grammar, vocabulary, and structures of the language to meet performance goals and build a foundation of continuous language learning. Students practice language using tasks in culturally appropriate ways to assimilate the Spanish language within the perspective of Hispanic culture. Students practice speaking through both interpersonal tasks and presentations to integrate speaking and writing the language while visually presenting information.

### Pre-regs:



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# **Educ/Liberal Arts/Math**

**English** 

## SPN200 ELEMENTARY SPANISH II

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course incorporates the five world-readiness standards for learning languages – Communication, Communities, Comparisons, Connections, and Cultures – to give students the ability to undertake real-world linguistic tasks in Spanish across a wide range of topics and settings. The communication methods used to incorporate the standards are interpersonal, interpretative, and presentational to enable students to achieve a novice-high to intermediate-low level of performance. Students learn grammar, vocabulary, and structures of the language to meet performance goals and build a foundation of continuous language learning. Students practice language using tasks in culturally appropriate ways to assimilate the Spanish language within the perspective of Hispanic culture. Students practice speaking through both interpersonal tasks and presentations to integrate speaking and writing the language while visually presenting information.

Pre-regs:

**SPN100** 

# **General Studies**

## SSC101 STUDENT SUCCESS SEMINAR

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed to aid students in gaining the skills necessary for academic success at Stark State College (SSC). Topics include learning styles, critical thinking, time management, study and test-taking techniques, communication skills, and a variety of personal development strategies. Students will learn how to access and use SSC resources such as mystarkstate, the College's Learning Management System (LMS), Digital Library, Writing Center, Career Development, advising, tutoring, and other College support services. This course also fosters connections between students, their respective academic divisions, and their classmates. Upon completion of this course, students should be able to incorporate into their degrees or certificate programs the tools and skills necessary to be academically and professionally successful.

**Pre-regs:** 

## **Mathematics**

#### MTH005 Found for Math Allied Health

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course provides remediation for students who are co-enrolled in Math for Allied Health. It is designed to enhance student success. Topics to be covered are basic arithmetic, basic fractions and decimals, basic variables and equations, and basic percent and proportions.

Pre-reqs:



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# Educ/Liberal Arts/Math

#### **Mathematics**

#### MTH007 **Foundation for Industrial Math**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course provides a mathematical foundation and practice in topics relevant to Industrial Math, along with intensive individualized instruction. Students will receive targeted support using a "just in time" model that will boost their understanding and learning of their college-level course.

## Pre-regs:

## MTH020A 1st Half PrRq Math--MTH021-023

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course is a shell course. This means that you register for MTH020A, but then your registration will be transferred to the correct prerequisite course required for your college-level math course. You will not get credit for this shell, but instead will get credit for one of the courses listed below.

Once you sign up for this shell course, you will be transferred into one of these courses. Both the shell and the courses listed below are 2-credit hours each.

- MTH021 Math Fundamentals
- MTH022 Pre-Statistics
- MTH023 Pre-College Algebra

#### MTH020B 2nd Half PrRq Math--MTH021-025

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course is a shell course. This means that you register for MTH020A (or B), but then will be transferred to the correct prerequisite course required for your college-level math course. You will not get credit for this shell, but instead will get credit for one of the courses listed below.

Once you sign up for this shell course, you will be transferred into one of these courses. Both the shell and the courses listed below are 2-credit hours each. Note to advisors and students: MTH024 and MTH025 should only be taken by students who have taken more than one semester to finish their prerequisite courses. Otherwise, they should be taken with the appropriate college-level course.

- MTH021 Math Fundamentals MTH022 Pre-Statistics
- MTH023 Pre-College Algebra
- MTH024 Foundations for Statistics
- MTH025 Foundations for College Algebra

MTH020A

Can be Taken Concurrently



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# Educ/ Liberal Arts/ Math

**Mathematics** 

#### MTH021 Math Fundamentals

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course covers mathematical topics that are essential for students in any discipline. Topics to be covered are signed numbers; signed fractions; signed decimals; an introduction to variables; and solving equations.

Pre-regs:

#### MTH022 Pre-Statistics

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course covers mathematical topics that are essential for students taking statistics or a quantitative reasoning course. Topics to be covered are ratios, rates and proportions; percent; and solving equations. Emphasis is placed on applications of concepts and mathematical reasoning.

#### **Pre-reqs:**

MTH021

# MTH023 Pre-College Algebra

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course covers mathematical topics that are essential for students in any discipline, but especially for those planning to take a STEM-related college level math course. Topics covered include linear graphing; linear systems of equations; exponents; polynomials; factoring; roots and radicals; and solving equations. Emphasis is placed on techniques and processes to prepare students for the analysis in a College Algebra or Precalculus course.

## Pre-regs:

MTH021



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# Educ/Liberal Arts/Math

#### **Mathematics**

#### MTH024 Foundations for Statistics

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course provides a mathematical foundation and practice in topics of an introductory level statistics course, along with intensive individualized instruction. Students will receive targeted support using a "just in time" model that will boost their understanding and learning of Statistics.

## Pre-reqs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: M092 Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

Or MTH022

Or MTH023

MTH092

# MTH105 Math for Allied Health

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to provide health science students with the mathematical skills and concepts required to be successful in allied health fields. Topics covered in this course will be: allied health applications, metric conversions, apothecary and household systems, systems of measurements, use of formulas, dimensional analysis, percent, decimals, fractions, ratios and proportions, direct and inverse variation, solutions, dosage calculations, allied health graphs, scientific notation, and statistical concepts.

## Pre-regs:

And Test & Score: ACT Math - 19

Or Test & Score: ACT Math - 19

And Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer College-level Math - 040

And Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M092 Transfer Prof/Placement 539



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# Educ/ Liberal Arts/ Math

#### **Mathematics**

#### MTH105 Math for Allied Health

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to provide health science students with the mathematical skills and concepts required to be successful in allied health fields. Topics covered in this course will be: allied health applications, metric conversions, apothecary and household systems, systems of measurements, use of formulas, dimensional analysis, percent, decimals, fractions, ratios and proportions, direct and inverse variation, solutions, dosage calculations, allied health graphs, scientific notation, and statistical concepts.

## Pre-reqs:

And Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer AAF Math - 237

And Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

Or MTH005 Can be Taken Concurrently

Or MTH005

Or MTH005

Or MTH020A

And MTH020B

Or MTH021

MTH092

Or MTH100

## MTH107 Industrial Math

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover the topics of elementary mathematics needed for applications in the vocational and technical curriculum. The operation and use of the scientific calculator as a problem solving tool will be emphasized. Topics include: basic concepts, fractions, the metric system, measurements, polynomials, basic right angle trigonometry, ratios and proportions, geometry, oblique triangles, the law of sines and law of cosines.

## Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra 5097



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# **Educ/Liberal Arts/Math**

#### **Mathematics**

## MTH107 Industrial Math

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover the topics of elementary mathematics needed for applications in the vocational and technical curriculum. The operation and use of the scientific calculator as a problem solving tool will be emphasized. Topics include: basic concepts, fractions, the metric system, measurements, polynomials, basic right angle trigonometry, ratios and proportions, geometry, oblique triangles, the law of sines and law of cosines.

## Pre-reqs:

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

MTH007

And MTH007

Can be Taken Concurrently

And MTH007

Can be Taken Concurrently

And MTH007

Can be Taken Concurrently

Or MTH020A

And MTH020B

Or MTH021

Or MTH092

## MTH108 Explorations in Modern Mathema

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to introduce the student to the beauty and utility of mathematics in everyday life. The student will be able to reason critically, think creatively, assess evidence from conclusions, and use skills in abstract and quantitative thinking. Topics covered in this course will be: Thinking critically, numbers in the real world (percentages and index numbers), managing your money, statistical reasoning, describe statistical data using measures of center and spread, statistical inference, the normal distribution, solve basic probability applications, mathematics and business.

### Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039



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# Educ/ Liberal Arts/ Math

#### **Mathematics**

## MTH108 Explorations in Modern Mathema

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to introduce the student to the beauty and utility of mathematics in everyday life. The student will be able to reason critically, think creatively, assess evidence from conclusions, and use skills in abstract and quantitative thinking. Topics covered in this course will be: Thinking critically, numbers in the real world (percentages and index numbers), managing your money, statistical reasoning, describe statistical data using measures of center and spread, statistical inference, the normal distribution, solve basic probability applications, mathematics and business.

## Pre-reqs:

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M092 Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

Or MTH020A

And MTH020B

Or MTH022

Or MTH023

MTH092

Or MTH100

# MTH124 Statistics

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces the student to statistical thinking and the use of statistical methods for gathering and analyzing data. The focus is on graphical, tabular, and numerical methods for summarizing distributions. Fundamental concepts of probability are introduced as well as the concepts of discrete (binomial) and continuous (normal) probability distributions and their importance to inferential statistics. Point estimates and interval estimates of population means and standard deviations are obtained stressing the importance of random sampling. Hypothesis testing of one sample mean and proportions is used for statistical inference. Chi-Square goodness-of-fit test and least squares regression analysis for linear correlation are computed manually and with a statistical package such as SPSS, SAS, Minitab, Excel, or similar technology.

## Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: ACT Math - 22

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer College-level Math - 055

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: Compass Algebra - 039

Or Test & Score: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M093 Transfer Prof/Placement 582



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# Educ/Liberal Arts/Math

#### **Mathematics**

## MTH124 Statistics

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces the student to statistical thinking and the use of statistical methods for gathering and analyzing data. The focus is on graphical, tabular, and numerical methods for summarizing distributions. Fundamental concepts of probability are introduced as well as the concepts of discrete (binomial) and continuous (normal) probability distributions and their importance to inferential statistics. Point estimates and interval estimates of population means and standard deviations are obtained stressing the importance of random sampling. Hypothesis testing of one sample mean and proportions is used for statistical inference. Chi-Square goodness-of-fit test and least squares regression analysis for linear correlation are computed manually and with a statistical package such as SPSS, SAS, Minitab, Excel, or similar technology.

## Pre-reqs:

Or  $\,$  Test & Score: HS Math Proficiency - 3

Or Test & Score: NextGen Accuplacer AAF Math - 250

Or Test & Score: NextGen Accuplacer QAS Math - 263

Or Test & Score: SAT Mathematics - 530

Or MTH020A

And MTH020B

Or MTH022

And MTH024 Can be Taken Concurrently

Or MTH024

Or MTH092

MTH093

Or MTH123

# MTH124A Statistics, Module A

Credit Hours: 1.5 Contact Hours: 1.5 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course introduces the student to statistical thinking and the use of statistical methods for gathering and analyzing data. The focus is on graphical, tabular, and numerical methods for summarizing distributions. Fundamental concepts of probability are introduced as well as the concepts of discrete (binomial) and continuous (normal) probability distributions and their importance to inferential statistics. Point estimates and interval estimates of population means and standard deviations are obtained stressing the importance of random sampling. Hypothesis testing of one and two sample means and proportions is used for statistical inference along with the F-Test, Chi-Square, and ANOVA. Least squares regression analysis for linear correlation is computed manually or with a statistical package such as SPSS, SAS, Minitab or Excel.

## Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: ACT Math - 22

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer College-level Math - 955



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# **Educ/Liberal Arts/Math**

#### **Mathematics**

#### MTH124A Statistics, Module A

Credit Hours: 1.5 Contact Hours: 1.5 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course introduces the student to statistical thinking and the use of statistical methods for gathering and analyzing data. The focus is on graphical, tabular, and numerical methods for summarizing distributions. Fundamental concepts of probability are introduced as well as the concepts of discrete (binomial) and continuous (normal) probability distributions and their importance to inferential statistics. Point estimates and interval estimates of population means and standard deviations are obtained stressing the importance of random sampling. Hypothesis testing of one and two sample means and proportions is used for statistical inference along with the F-Test, Chi-Square, and ANOVA. Least squares regression analysis for linear correlation is computed manually or with a statistical package such as SPSS, SAS, Minitab or Excel.

## Pre-reqs:

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: Compass Algebra - 039

Or Test & Score: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M093 Transfer Prof/Placement - 3

Or Test & Score: HS Math Proficiency - 3

Or Test & Score: NextGen Accuplacer AAF Math - 250

Or Test & Score: NextGen Accuplacer QAS Math - 263

Or Test & Score: SAT Mathematics - 530

Or MTH020A

And MTH020B

Or MTH022

And MTH024 Can be Taken Concurrently

Or MTH024

Or MTH092

MTH093

Or MTH123



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# **Educ/Liberal Arts/Math**

**Mathematics** 

#### MTH124B Statistics, Module B

Credit Hours: 1.5 Contact Hours: 1.5 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course introduces the student to statistical thinking and the use of statistical methods for gathering and analyzing data. The focus is on graphical, tabular, and numerical methods for summarizing distributions. Fundamental concepts of probability are introduced as well as the concepts of discrete (binomial) and continuous (normal) probability distributions and their importance to inferential statistics. Point estimates and interval estimates of population means and standard deviations are obtained stressing the importance of random sampling. Hypothesis testing of one and two sample means and proportions is used for statistical inference along with the F-Test, Chi-Square, and ANOVA. Least squares regression analysis for linear correlation is computed manually or with a statistical package such as SPSS, SAS, Minitab or Excel.

## Pre-regs:

#### MTH124A

## MTH124S Stats w/CoReq(MTH124+MTH024)

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0

This course is a "shell course" comprised of two components, Statistics (MTH124) and Foundations for Statistics (MTH024), lecture and corequisite respectively.

- \*\* Students who have completed MTH092 with B or Better or by Placement, and do not have MTH093 and/or MTH094 as a program requirement, should register for this shell course, MTH124S (5 credit hours).
- \*\* Students who have completed MTH093 with B or Better or by Placement are not required to Foundations for Statistics (MTH024), the corequisite component. In this case, you should register for MTH124 (3 credit hours).

# Pre-reqs:

- Or Test & Score: ACT Math 19
- Or Test & Score: Accuplacer College-level Math 040
- Or Test & Score: Accuplacer Elementary Algebra 097
- Or Test & Score: Compass Algebra 039
- Or Test & Score: M092 Transfer Prof/Placement 3
- Or Test & Score: NextGen Accuplacer AAF Math 237
- Or Test & Score: NextGen Accuplacer QAS Math 250
- Or Test & Score: SAT Mathematics 510
- Or MTH022
- Or MTH023

MTH092



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# Educ/ Liberal Arts/ Math

#### **Mathematics**

## MTH125 COLLEGE ALGEBRA

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

In this course, students will study linear, quadratic, polynomial, radical, rational, exponential, logarithmic, and piecewise (including absolute value) equations and inequalities by applying analytical, graphical, and numerical methods of solution. Elementary functions will be examined with reference to extrema, roots (zeros), and end-behavior of their respective graphs. Theory of equations including the Remainder and Factor Theorems, The Rational Root Theorem, and Descartes' Rule of Signs will be used for non-graphical analysis of higher-order polynomial functions. Systems of equations will be solved by traditional algebraic methods. TMM001 approved Spring 2012.

## Pre-reqs:

Or Test & Score: ACT Math - 19

Or Test & Score: ACT Math - 22

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer College-level Math - 055

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: Compass Algebra - 039

Or Test & Score: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M094 Transfer Prof/Placement - 3

Or Test & Score: HS Math Proficiency - 3

Or Test & Score: NextGen Accuplacer AAF Math - 250

Or Test & Score: NextGen Accuplacer QAS Math - 263

Or Test & Score: SAT Mathematics - 530

Or MTH023

And MTH025 Can be Taken Concurrently

Or MTH025

MTH094

Or MTH094

Or MTH123



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# Educ/ Liberal Arts/ Math

#### **Mathematics**

## MTH125A COLLEGE ALGEBRA A

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Study of linear, quadratic and absolute value equations and inequalities, graphs of elementary functions and non-functions. TMM001 approved Spring 2012.

# Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: ACT Math - 22

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer College-level Math - 055

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: Compass Algebra - 039

Or Test & Score: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M093 Transfer Prof/Placement - 3

And Test & Score: M094 Transfer Prof/Placement - 3

Or Test & Score: HS Math Proficiency - 3

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: NextGen Accuplacer QAS Math - 263

Or Test & Score: SAT Mathematics - 530

And MTH025 Can be Taken Concurrently

Or MTH025

MTH093

Or MTH093

And MTH094

And MTH094

Or MTH123



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# Educ/ Liberal Arts/ Math

**Mathematics** 

#### MTH125B COLLEGE ALGEBRA B

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Graphing of polynomial and rational functions, zeros of polynomial functions including the Fundamental Theorem of Algebra, exponential and logarithmic functions including graphs and applications, conic sections, systems of equations using matrices and determinants, matrix algebra, partial fraction decomposition. Ohio Transfer Module Approved effective Summer 2010.

## Pre-regs:

MTH125A

# MTH125S Col Alg w/CoReq(MTH125+MTH025)

Credit Hours: 6 Contact Hours: 6 Lecture Hours: 6 Lab Hours: 0 Other Hours: 0

This course is a "shell course" comprised of two components, College Algebra (MTH125) and Foundations for College Algebra (MTH025), lecture and corequisite respectively.

#### **Pre-reqs:**

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: M092 Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

Or MTH023 MTH092

#### MTH130 TRIGONOMETRY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Study of angles and degree measure; radian measure; arc length and area; angular and linear velocity; trigonometric functions; right angle trigonometry; trigonometric identities and reference angles; unit circle and graphing; general sine wave; graph of tangent function; inverse trigonometric functions; basic sine, cosine and tangent equations; multiple angle equations; vectors and their applications; oblique triangles and their applications; polar coordinates and complex numbers.



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# Educ/ Liberal Arts/ Math

#### **Mathematics**

#### MTH130 TRIGONOMETRY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Study of angles and degree measure; radian measure; arc length and area; angular and linear velocity; trigonometric functions; right angle trigonometry; trigonometric identities and reference angles; unit circle and graphing; general sine wave; graph of tangent function; inverse trigonometric functions; basic sine, cosine and tangent equations; multiple angle equations; vectors and their applications; oblique triangles and their applications; polar coordinates and complex numbers.

# Pre-regs:

MTH125

Or MTH125A

And MTH125B

#### MTH135 PRECALCULUS

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0

Study of linear and quadratic equations, their applications; solving rational and radical equations; complex numbers; linear, polynomial and rational inequalities; equations and inequalities involving absolute value; graphs of equations; relations and functions; transformation of functions; combining functions and composite functions; inverse functions; exponential and logarithmic functions and equations; angles and their measure; right angle trigonometry, trigonometric functions of any angle, graphs of trigonometric ratios; inverse trigonometric functions; trigonometric identities and equations, sum, difference, double angle, half angle; applications of trigonometric functions; systems of equations; matrices and determinants; the conic sections; sequences and series.

## Pre-regs:

Or Test & Score: ACT Math - 22

Or Test & Score: Accuplacer College-level Math - 055

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: HS Math Proficiency - 3

Or Test & Score: NextGen Accuplacer AAF Math - 250

Or Test & Score: NextGen Accuplacer OAS Math - 263

Or Test & Score: SAT Mathematics - 530

MTH025

Or MTH093

And MTH094



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# Educ/ Liberal Arts/ Math

**Mathematics** 

## MTH135A PRECALCULUS A

Credit Hours: 2.5 Contact Hours: 2.5 Lecture Hours: 2.5 Lab Hours: 0 Other Hours: 0

Study of linear and quadratic equations, and their applications; solving rational and radical equations; complex numbers; linear, polynomial and rational inequalities; equations and inequalities involving absolute value; graphs of equations; relations and functions; transformation of functions; combining functions and composite functions; inverse functions; exponential and logarithmic functions and equations; the conic sections; sequences and series.

# Pre-regs:

Or Test & Score: ACT Math - 22

Or Test & Score: Accuplacer College-level Math - 055

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M093 Transfer Prof/Placement - 3

And Test & Score: M094 Transfer Prof/Placement - 3

Or Test & Score: HS Math Proficiency - 3

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: NextGen Accuplacer QAS Math - 263

Or Test & Score: SAT Mathematics - 530

Or MTH025

MTH093

And MTH094

Or MTH123

#### MTH135B PRECALCULUS B

Credit Hours: 2.5 Contact Hours: 2.5 Lecture Hours: 2.5 Lab Hours: 0 Other Hours: 0

The student of angles and their measure; right angle trigonometry; trigonometric functions of any angle; graphs of trigonometric ratios; inverse trigonometric functions; trigonometric identities and equations, sum, difference, double angle, half angles; applications of trigonometric functions; systems of equations; matrices and determinants.

### Pre-regs:

MTH135A



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# Educ/ Liberal Arts/ Math

#### **Mathematics**

## MTH214 Discrete Mathematics

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will focus on mathematical reasoning and proof techniques as well as the applications of discrete mathematics in computer science. These include finite set theory, graph theory, combinatorics, propositional logic, discrete probability, relations, recursion, Boolean algebra, error-correcting codes, formal methodology and proof techniques. Precise mathematical notation will be used and emphasized.

## Pre-reqs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: SAT Mathematics - 640

Or MTH125

Or MTH125A

And MTH125B

MTH135

Or MTH135A

And MTH135B

# MTH221 CONCEPTS OF CALCULUS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A study of the theory and techniques of analytic geometry, differential and integral calculus, including variables, functions, limits, differentiation, integration and applications of the derivative and integral.

## Pre-regs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: SAT Mathematics - 640

Or MTH125 Can be Taken Concurrently

And MTH130

MTH135

Or MTH135A



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# Educ/ Liberal Arts/ Math

#### **Mathematics**

# MTH221 CONCEPTS OF CALCULUS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A study of the theory and techniques of analytic geometry, differential and integral calculus, including variables, functions, limits, differentiation, integration and applications of the derivative and integral.

## Pre-regs:

And MTH135B

#### MTH223 ANALYTIC GEOMETRY-CAL I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

In this course students will develop mathematical thinking and communication skills and learn to apply precise logical thinking to the study of analytic geometry, limits, continuity, derivatives, tangent and normal lines, derivatives of trigonometric functions, related rates, Newton's method, Rolle's theorem, mean value theorem, extrema of functions, antiderivatives, definite integrals, indefinite integrals, areas and volumes. Key ideas and concepts will be presented from a variety of perspectives with a broad range of examples and applications. A graphing utility will be used to reinforce and extend concepts and for numerical methods such as the Trapezoidal Rule and Simpson's Rule for integration. Students will progress from a procedural/computational understanding of mathematics to a broader understanding encompassing logical reasoning, generalization, abstraction, and formal proof.

# Pre-reqs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: SAT Mathematics - 640

Or MTH125

And MTH130

MTH135

Or MTH135A

And MTH135B



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# Educ/ Liberal Arts/ Math

**Mathematics** 

#### MTH223A ANALYTIC GEOMETRY-CAL I A

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

In this course students will develop mathematical thinking and communication skills and learn to apply precise logical thinking to the study of analytic geometry, limits, continuity, derivatives, tangent and normal lines, derivatives of trigonometric functions and related rates. A graphing utility will be used to reinforce and extend concepts and for numerical methods such as the value of a derivative at a given point. Students will progress from a procedural/computational understanding of mathematics to a broader understanding encompassing logical reasoning, generalization, abstraction, and formal proof.

## Pre-regs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: SAT Mathematics - 640

Or MTH125

And MTH130

MTH135

Or MTH135A

And MTH135B

#### MTH223B ANALYTIC GEOMETRY AND CAL I B

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

In this course students will develop mathematical thinking and communication skills and learn to apply precise logical thinking to the study of functions, Newton's method, Rolle's theorem, mean value theorem, extrem of faunctions, antiderivatives, definite integrals, indefinite integrals, areas and volumes. Key ideas and concepts will be presented from a variety of perspectives with a broad range of examples and applications. A graphing utility will be used to reinforce and extend concepts and for numerical methods such as the Trapezoidal Rule and Simpson's Rule for integration. Students will progress from a procedural/computational understanding of mathematics to a broader understanding encompassing logical reasoning, generalization, abstraction, and formal proof.

# Pre-reqs:

MTH223A

#### MTH224 ANALYTICAL GEO & CALC II

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This is the second course in the study of calculus. It includes the derivatives of inverse and exponential functions and a sustained study of integration techniques including integration by parts, trigonometric integrals, and partial fraction decomposition and applications of these. The importance of Riemann sums is demonstrated with the use of numerical methods such as the Trapezoidal Rule and Simpson's Rule. Students will see limits leading to indeterminate forms

Trapezoidal Rule and Simpson's Rule. Students will see limits leading to indeterminate forms and the incorporation of L'Hopital's Rule and they will evaluate improper integrals and integrals on which the integrand becomes infinite. The existence of limits of sequences will be



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**Mathematics** 

determined and tests for convergence of series will be introduced. Analysis of curves given parametrically and in polar form and areas of regions defined by such curves will also be investigated. Ohio Transfer Module Approved Spring 2012 TMM006.

MTH223 Or MTH223A And MTH223B

#### MTH225 ANALYTIC GEO & CALC III

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course will examine calculus in three or more dimensions. Some topics covered are differentiation and integration of functions of multiple variables, double and triple integrals; vector-valued functions; graphs of multivariate functions; partial and directional derivatives. Students will find equations of tangent planes and normal lines to a surface. They will apply the chain rule to functions of several variables and solve optimization problems by analysis of critical points including extrema and saddle points. Students will also study line and surface integrals, conservative and inverse square fields, and vector fields. Green's Theorem, Gauss's Divergence Theorem, and Stokes Theorem will be introduced. TAG approved OMT018, effective spring 2020

Pre-regs:

MTH224

## MTH226 LINEAR ALGEBRA

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

In this course students will study vectors in Rn and operations with vectors including addition, scalar multiplication, dot product, determination of orthogonality, and computation of the angle

between vectors. They will use Gauss-Jordan elimination and other matrix methods to solve systems of linear equations and therefore perform common matrix operations including transposition and computation of inverses. Spanning sets and linear independence will be examined in regard to subspaces of Rn along with proofs of theorems concerning rank and nullity. Students will explore linear transformations from Rn to Rm and gain an understanding of kernel and image as well as the relationship between a linear transformation and its matrix representation. Matrix products will come to be viewed as a composition of linear transformations. Through the use of determinants, students will learn of row operations and their affects on the determinant. Further topics will include eigenvalues, eigenvectors, characteristic polynomials, and the axioms of abstract vector spaces over real or complex fields. TAG approved course OMT019, effective Summer 2013.



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## Educ/Liberal Arts/Math

**Mathematics** 

#### MTH227 ORDINARY DIFFERENTIAL EQUAT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

In this course students will study first-order differential equations that are separable, linear or exact. Included will be Bernoulli and homogeneous equations. Applications requiring the use of first-order differential equations will include exponential growth and decay, population logistic growth, velocity, mixture, two component series circuits and chemical reactions.

Students will also solve higher order homogeneous and nonhomogeneous equations with constant coefficients by the methods of undetermined coefficients and variation of parameters.

Equations with variable coefficients, most notably Bessel's equation, will be solved by applying power series techniques. Applications requiring the use of second-order differential equations will include motion, acceleration, and three component series circuits. Students will also perform operations with Laplace and inverse Laplace transforms and solve systems of differential equations using various methods such as elimination, matrices, and eigenvalues. In addition to the analytical methods of differential equations, students will also explore numerical methods such as Euler and Runge-Kutta. TAG approved course OMT020, effective Summer 2013.

**MTH224** 

#### **Social Sciences**

#### GER121 INTRO TO GERONTOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Presents a basic understanding of the historical, cultural, biological, physiological, psychological, and social contexts of aging. Addresses the changes that occur within the aging individual, how these changes influence interactions with social and physical environments, and how the older person, in turn, is affected by these interactions. Includes a discussion of age-related changes in anatomy and physiology, socialization, personality, intelligence, sensation, social support, economics and retirement, death and dying, and crime and fraud.

**Pre-reqs:** 

#### GER122 PSYCHOSOCIAL ASPECT OF AGING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Examines the process of aging from individual and societal perspectives. Uses a psychosocial approach to discuss the images of growing old, created by individual and institutional structures of society, as well as the myriad of patterns of inequality of gender, race, and economics that are compounded in old age. Topics include a discussion of speed of behavior, mental functioning, mental disorders, socialization, social support, economics and retirement, leisure activities, living arrangements, and death and dying.

Pre-regs:



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# **Educ/Liberal Arts/Math**

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HIS222	world Civ	from 17th Century	

 $Credit\ Hours: 3\quad Contact\ Hours: 3\quad Lecture\ Hours: 3\quad Lab\ Hours: 0\quad Other\ Hours: 0$ 

This course will study world history from the mid-17th century to the present.

## Pre-reqs:

## **KARC100 Understanding Architecture**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

### Pre-reqs:

## KARF140 Drawing 1

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KARF140	Sculpture II
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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KARF140 Painting 1**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KARF999 Fine Arts Core Course**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KARF999	Fine .	Arts	Core	Course
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Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KARF999 Fine Arts Core Course**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KARF999 Fine Arts Core Course**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KARF999 Fine Arts Core Co	ourse
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Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KART120 Art Survey**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KART140 2-D Composition**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KART140 3-D Composition	on
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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## KART220 Art History I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## KART220 Art History II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KENG210 Introduction to Shake	espeare
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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KENG220 Great Books I**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KENG230 Major Modern Writers**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## **Educ/Liberal Arts/Math**

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KHIS110	History of Civilizati	on I
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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

## KHIS110 History of Civilization II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### KHIS120 U.S. Formative Period

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KHIS120	II S Mo	darn	Dariod
KHISTZU	U.5. WO	aern	Perioa

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KHUM99 Humanities Core Course**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KHUM99 Humanities Core Course**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KHUM99 Humanities Core Cou	irse
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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KHUM99 Humanities Core Course**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KHUM99 Humanities Core Course**

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KMTH999 Math and Critical Reasonii
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Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KMTH999 Math and Critical Reasoning**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

# **KMTH999 Math and Critical Reasoning**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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<b>KMTH999</b>	Math	and	Critical	Rease	oning

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KMTH999 Math and Critical Reasoning**

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KMUS111 Music Fundamentals**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KMIIS	111	Music	Rudim	ents

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KMUS111 Music Theory 1**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KMUS111 Music Theory**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KMUS211 Music Theory to 1750**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## KMUS211 Music Theory from 1750 to 1900

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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# Educ/Liberal Arts/Math

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KMUS221	The	Understa	nding	of Musi	C
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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KMUS221 Music as a World Phenomenon**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KMUS253 Chamber Music**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

## **KMUS312 Composition**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KMUS352 Studio Ensemble**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

## KMUS421 History of Jaz

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### KMUS470 Folk Guitar Class 1

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

## **KPAS230** Black Experience I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KSCI9990 Basic Sciences**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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KSCI9990 Basic Sciences	KSC19990	Basic S	Sciences
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Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KSCI9990 Basic Sciences**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KSCI9990 Basic Sciences**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/Liberal Arts/Math

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Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0

See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KSOC999 Social Sciences**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

## Pre-reqs:

### **KSOC999 Social Sciences**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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# **Educ/Liberal Arts/Math**

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Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KSOC999 Social Sciences**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.

Pre-reqs:

### **KSOC999 Social Sciences**

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0 See Kent State University course catalog at www.kent.edu.



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## Educ/ Liberal Arts/ Math

**Social Sciences** 

#### PSC121 POLITICAL SCIENCE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An examination of the nature, purpose and forms of American government; the relationship between function and structure; the dynamics of political change; and governmental problems of modern society. TAG approved course- OSS011 effective Spring 2007. Ohio Transfer Module Approved effective Autumn 2008. TMSBS approved Spring 2012.

Pre-regs:

#### PSC221 State and Local Government

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces students to the structure and processes of state governments and their relationship with the federal government, as well as the structure and processes of local governments and their relationship to state government. Emphasis will be placed on state and local government in Ohio. TAG approved - OSS014 effective Spring 2018

#### **Pre-reqs:**

PSC121

## PSC222 Public Policy

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explores the process of making public policy from creation to implementation within communities. Student will also examine the roles of government entities, private citizens, and societal groups.

#### Pre-regs:

PSC121



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## Educ/ Liberal Arts/ Math

**Social Sciences** 

#### PSY121 GENERAL PSYCHOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Surveys the scientific study of behavior, addressing a wide range of traditional topics including introduction and research; perception; consciousness; learning; cognition; personality; pathology/treatment; development; biological basis of behavior; social and organizational psychology. Emphasizes classical and current theory and research with selected attention to practical application.

### Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

Or IDS102

Or IDS102

Or IDS102

### PSY123 HUMAN GROWTH AND DEVELOP

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A study of normal physical, mental, emotional and social development and changes in the development of the individual from prenatal to old age. TMSBS approved Spring 2012. . TAG approved OSS048 effective Spring 2011.

### **Pre-reqs:**

PSY121



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# Educ/ Liberal Arts/ Math

**Social Sciences** 

#### PSY124 INDUSTRIAL/ORGANL PSYCH

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Drawing from a wide range of psychological theories, principles and research, this course emphasizes personal and interpersonal skill-building beneficial to the prospective professional. Topics include learning and memory; perception; motivation and leadership; group dynamics and team-building; problem-solving and conflict resolution; communications; and stress management. Ohio Transfer Module effective Autumn 2008.

Pre-regs:

#### **PSY131** Psychology of Personality

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides a survey of major perspectives of personality. Students will apply the scientific method as a tool in the discovery of personality description, development, and assessment. TAG apprvoed OSS018, effective summer 2020

#### **Pre-reqs:**

PSY121

## PSY220 SOCIAL PSYCHOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The scientific study of the way in which people's thoughts, feelings and behavior are influenced by their social and cultural environments. This course focuses on such topics as attitude formation, conformity/obedience, group processes, prosocial behavior, interpersonal relationships, aggression and social cognition. TAG OSS016 approved Spring 2012. Ohio Transfer Module Approved Spring 2012 TMSBS.

#### Pre-regs:

**PSY121** 



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## Educ/ Liberal Arts/ Math

#### **Social Sciences**

#### PSY221 ABNORMAL PSYCHOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An overview of the range of human behavior, emphasizing current distinctions between normal and abnormal. Explores historical and contemporary cause-and-effect models with focus on current diagnostic and statistical criteria, as well as treatment approaches and related issue. TMSBSeffective Autumn 2008. TAG Approved OSS017 effective Autumn 2005.

### Pre-reqs:

**PSY121** 

## PSY222 Psy Aspect of Therapy

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Covers the general principles of interaction with a specific focus on those unique challenges confronting the patient and the health care provider. Attention is given to the psychosocial needs of both the patient and the health care provider. Issues of communication, patient-provider relationships, patient dependency, personal values, and relating to people from differing cultures, ages, and special needs are discussed.

#### **Pre-reqs:**

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

Or IDS102

Or IDS102



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## Educ/Liberal Arts/Math

**Social Sciences** 

#### PSY229 PSYCHOLOGICAL METHODS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course serves as the keystone experience for those pursuing the Associate of Arts in Psychology. This course synthesizes previous course work to allow the student an opportunity to demonstrate understanding and competency of broad psychological concepts. Additionally, students are provided the opportunity to apply this understanding through exploring concepts of interest within the field by conducting and producing an empirical study. Systematic guidance is provided throughout the course to assist students in understanding the process.

### Pre-reqs:

**PSY123** 

And PSY220

And PSY221

And PSY221

And PSY222

### SOC121 SOCIOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Introduces the general theories of the field, and research methods. Students will examine the impact of culture, social interaction, social structure, socialization, and social institutions on social behavior.

#### Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

Or IDS102

Or IDS102



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## Educ/Liberal Arts/Math

**Social Sciences** 

#### SOC122 SOCIETY AND TECHNOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An examination of the consequences of technological change on social organizations, cultural values and social institutions, and the response or adaptation of social systems to this change. Includes an assessment of the social problems of a technological age as seen through current events. TMSBS Approved effective Autumn 2008.

Pre-regs:

#### SOC123 DYNAMICS OF THE FAMILY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Explores various social and psychological approaches to family analysis, with emphasis on the family as a system. The transformation of the structure and function of the family from the traditional family to a more diverse definition of family is examined in relationship to changing roles and life issues. TAG approved Course-OSS023 effective Spring 2007. TMSBS Approved effective Summer 2008.

**Pre-reqs:** 

## SOC221 SOCIAL PROBLEMS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An examination of significant contemporary problems in American society and their impact on traditional and emerging sociological institutions/systems. Special consideration is given to these topics as they apply to social service agencies. TAG approved course--OSS025 effective Spring 2007.

Pre-reqs:

SOC121



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## Educ/ Liberal Arts/ Math

**Social Sciences** 

#### SOC222 JUVENILE DELINQUENCY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Introduces students to the nature and causes of juvenile delinquency. Major theories proposed as explanations of delinquent behavior are reviewed and evaluated. Students will gain an understanding of the life experiences leading up to delinquent behavior, to the external and internal influences on the delinquent and to the choices that lead to a life of crime. Topics such as status offenses, substance use and abuse, street crime and gang membership will be discussed. Preventive strategies, community-based corrections and institutions for juveniles will be reviewed.

#### Pre-regs:

SOC121

#### SOC225 CULTURAL DIVERSITY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Provide students with an understanding of the cultural diversity of our changing society. Students will examine and discuss the diverse values and characteristics of ethnic and minority populations and how those values influence society, social and economic processes, and race relations. TMSBS Approved. Effective Autumn 2008.

#### Pre-regs:

## SOC228 Soc Structure & the Individual

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines the reciprocal relationship between the individual and society. Topics covered include: the nature and scope of sociological social psychology, symbols and symbolic communication, the structure of social interaction, the development of self and identity, small group processes and collective behavior, and the production of social structure and culture. Special consideration will be placed on interaction in organizational contexts, such as schools, workplaces, and policy decision arenas.

# Pre-reqs:

SOC121



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## Educ/ Liberal Arts/ Math

**Social Sciences** 

### **SOC229** The African American Experienc

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines the unique cultural experiences of African Americans in the United States. This course will primarily explore sociological issues and concepts and their relationship to the African American experience. A broad historical overview will be presented that will focus on African arrival in the Americas, slavery, reconstruction and the Civil Rights movement. Special emphasis will be placed on the social construction of race, discrimination and inequality in the United States and strategies to ameliorate discrimination and achieve equal opportunity. TAG approved OSS050, effective summer 2019

#### Pre-regs:

SOC121

#### **SOC230** Applied Sociological Methods

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will introduce students to basic sociological research, and test their proficiency in applying theory, research methodologies, and data analysis. The course begins with a brief synopsis of sociological theories and perspectives that can be used to identify and frame social problems and issues. A variety of quantitative and qualitative research methods will be introduced, and a number of statistical analytic techniques will be presented as options for consideration in data analysis. Throughout the course, students will be expected to isolate a problem or issue amenable to sociological analysis and develop a research project in order to demonstrate proficiency in applied sociological research.

### Pre-reqs:

Or MTH124

And MTH222

SOC123

And SOC221

And SOC225

And SOC228

And SOC229

#### **ZARC900** Understanding Art

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

See Kent State University course catalog at www.kent.edu.

#### Pre-regs:



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#### **Education and Human Serv**

**Education** 

#### EDU131 Child Development

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on applying knowledge of the characteristics and needs of young children, prenatal to age twelve, for the creation of healthy, respectful, supportive, challenging, and effective learning environments. Multiple and interrelated influences on the development and learning of young children will be examined. Historical and contemporary theories and research that support the importance of play, environments for learning, relationships, and the role of the teacher are presented. Ten observation hours are required. TAG approved OED010 effective Spring 2019

### Pre-reqs:

Or Test & Score: ACT English - 18

Or Test & Score: Accuplacer English/Writeplacer - 5

Or Test & Score: Compass English - 070

Or Test & Score: HS English Proficiency - 3

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 246

ENG011

Or ENG101

Or ENG105

#### EDU132 Observ, Assess, Group Mgt

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces the student to authentic and formal tools and strategies used in early childhood settings to appropriately assess, plan, and guide young children. Topics include methods of observation, recording growth, development and behavior, interpreting assessment data, influence of culture, and child guidance and group management with an emphasis on fostering self-discipline and pro-social skills. Ten observation hours are required.

## Pre-reqs:

Or Test & Score: ACT English - 16

Or Test & Score: Accuplacer English/Writeplacer - 4

Or Test & Score: Compass English - 050

ENG011

### **Engineering Tech**

#### **Automotive**



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## **Engineering Tech**

**Automotive** 

#### ETD202 ENG INDEP STUDY

Credit Hours: 2 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Engineering Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Engineering Technology will determine course content, meeting schedules and credit hours.

Pre-regs:

#### ETD204 ENG INDEPENDENT STUDY

Credit Hours: 4 Contact Hours: 40 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Engineering Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Engineering Technology will determine course content, meeting schedules and credit hours.

**Pre-reqs:** 

## **Engineering**

## ABC110 Electrical Applications I

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course will cover the creation and analysis of practical applications of lighting, load calculations for branch and feeder circuits, hazardous locations, and commercial electric service applications.



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# **Engineering Tech**

**Engineering** 

## ABC120 Electrical Applications II

Credit Hours: 5 Contact Hours: 8 Lecture Hours: 2 Lab Hours: 6 Other Hours: 0

This course covers the creation and analysis of practical applications for healthcare facilities, standby and emergency systems, fire alarm systems, heat tracing and freeze protection, and fundamentals of crew leadership.

Pre-regs:

#### **AIT139** Introduction to Robotics

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Basic terminology, theory and application of robotics, including: selection, construction, classification, operating characteristics and safety. Emphasis is given to industrial examples in stand-alone and work cell applications.

**Pre-reqs:** 

### CET121 BLDG MAT AND CON MET

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course familiarizes the student with the basic materials of construction according to their physical properties, durability and suitability for use under varying conditions. Use of materials in combination with one another and in the finished product will be examined both verbally and graphically. Emphasis is placed on material selection according to given criteria. CTCON003, effective spring 2016.



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# **Engineering Tech**

**Engineering** 

#### CET122 ARCHITECTURAL DRAFT I

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course familiarizes the student with the preparation and comprehension of basic architectural drawings. Intended for those with little or no drafting experience, the course will concentrate on drafting techniques through the drafting of plans, elevations and selected details, in pencil on vellum.

Pre-regs:

#### CET123 ARCHITECTURAL DRAFT II

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course concentrates on the preparation of building details and sections. Emphasis will be placed upon the design of details and their synthesis into a final graphic product.

#### Pre-regs:

And CET121

Can be Taken Concurrently

CET122

#### CET124 HIGHWAY AND MAP DRAWING

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 0 Lab Hours: 4 Other Hours: 0

Surveyors' notes are used by the student to develop and draw topographic and contour maps and plan-profile sheets for highway construction. Proper interpretation and uses of these drawings are also discussed.

### **Pre-reqs:**

MTH125

Or MTH125A

And MTH125B



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## **Engineering Tech**

**Engineering** 

#### CET125 SOIL MECHANICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course includes laboratory tests, soil classification systems, and theoretical concepts relative to soil strengths, stresses in soil masses, settlement under structures, bearing capacity for shallow foundations, retaining walls and slope stability. TAG approved course- OET017 effective Summer 2007.

### Pre-reqs:

And MET124

MTH125

Or MTH125B

Or MTH135

Or MTH135B

### CET221 SURVEYING GRAPHICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will introduce the student to computerized methods of preparing the various types of maps used by surveyors, civil engineers and contractors. Students will also learn how to prepare plans from electronic data recorders. Coding techniques for field use of data recorders will also be discussed.

## Pre-reqs:

CET227

And DET125

## CET222 CONCRETE AND ASPHALT TEST

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Major emphasis will be placed on the testing procedures used by engineers in determining material acceptance. Concrete and asphalt design methods will be covered, along with the conducting of many tests and the design of pavement. TAG approved course- OET018 effective Spring 2008.

#### Pre-regs:

And CET121

MTH125

Or MTH125B

Or MTH135



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# **Engineering Tech**

**Engineering** 

#### CET222 CONCRETE AND ASPHALT TEST

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Major emphasis will be placed on the testing procedures used by engineers in determining material acceptance. Concrete and asphalt design methods will be covered, along with the conducting of many tests and the design of pavement. TAG approved course- OET018 effective Spring 2008.

#### Pre-regs:

Or MTH135B

#### CET223 STRUCTURAL DESIGN I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the student to the analysis of simple structures. Topics include the application of loads on structures, and the analysis and design of steel and concrete members such as beams, columns, and frames. Current computer software for structural analysis will also be used.

#### **Pre-reqs:**

**MET124** 

Can be Taken Concurrently

## CET224 STRUCTURAL DESIGN II

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Analysis and design of wood members (beams, columns) will be covered in this class. Advanced topics in steel connections and concrete reinforcement of beams, slabs, columns, footings and retailing walls will also be studied. Current computer software for structural analysis will be used.

#### Pre-regs:

**CET223** 



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# **Engineering Tech**

**Engineering** 

#### CET225 SUSTAINABLE BDG SRVCE SYS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course examines sustainable storm water management, water supply and waste for buildings and how they can be designed to promote conservation, thermodynamics of buildings and how design of the envelope can reduce energy usage. HVAC system design for conservation and lighting design to maximize day-lighting and energy conservation.

#### Pre-regs:

**CET121** 

Can be Taken Concurrently

#### CET226 ESTIMATING

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course develops the methods and procedures for preparing construction estimates, both manually and electronically. Topics include excavation, masonry, concrete, steel and carpentry. Emphasis is placed on take-off procedures and pricing, consideration of labor and equipment costs, and overhead and profit. Computer programs will be utilized to establish a construction schedule. The student will do a complete estimate of a building project and prepare a competitive bid for the job.

#### Pre-regs:

Or Test & Score: ACT Math - 22

Or Test & Score: Accuplacer College-level Math - 055

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: Compass Algebra - 052

Or Test & Score: Computer Test - 21

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: HS Math Proficiency - 3

Or Test & Score: NextGen Accuplacer AAF Math - 250

Or Test & Score: NextGen Accuplacer QAS Math - 263

And CET121

And CET122

Or CET237

Or DET125

And ITD100

Or MTH025

Or MTH094

MTH123



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# **Engineering Tech**

**Engineering** 

#### CET227 SURVEYING I

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

The student is given practical experience in the use of the various surveying instruments while learning how to measure distances, angles and elevations. Methods of determining error of closure, coordinates and area for a property survey are discussed, as well as construction surveys.

### Pre-reqs:

MTH125

Or MTH125B

Or MTH135

Or MTH135B

#### CET228 SURVEYING II

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

Course covers methods and procedures for establishing line and grade for construction. Circular, spiral and parabolic curves, earth volume determination, cross-sectioning methods and advanced construction staking methods are also covered. The student is also introduced to electronic total stations and data collection. Use of the computer will be emphasized. This course is Ohio TAG approved. OET015 effective Summer 2008.

## Pre-reqs:

**CET227** 

#### CET229 SURVEYING III

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

The primary emphasis of this course will be the use of the electronic total station to perform surveying operations. Increased abilities and accuracies of field work, including precision measurement, will be demonstrated and obtained by students in such areas as traversing, horizontal and spiral curve layout, construction staking and data gathering for topographic maps. Appropriate computer software will be used. The student will also experience increased usage of digital levels and automatic data collection along with geodetic survey methods and state plane coordinate systems.

#### Pre-reqs:

CET228

And ECA122



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# **Engineering Tech**

**Engineering** 

#### CET231 LEGAL PRINC OF SURVEYING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The laws of land ownership, title guarantees, deed platting, interpretation of property descriptions, riparian rights and establishment of property lines will be discussed. Also covered will be the surveyor's rights, duties and liabilities; the state of Ohio survey laws; and minimum standards for boundary determination, description writing and map preparation. The historical development of the rectangular system of land subdivision will be covered, with primary emphasis placed on Ohio, as it is the site of the first public land surveys.

Pre-regs:

#### CET232 LAND PLANNING AND DESIGN

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course covers the study of site capabilities and potentials as they relate to land planning and subdivision design. Students will complete preliminary layouts for projects such as industrial parks, housing allotments, planned unit developments and commercial home sites in accordance with zoning and subdivision regulations.

#### **Pre-reqs:**

And CET122

Or CET124

CET227

Can be Taken Concurrently

Or DET125

#### CET233 ARCHITECTURAL DESIGN

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

The basics of design will be examined while solving architectural design problems. The student will be required to prepare preliminary design drawings that fully express the intended solution.

**Pre-reqs:** 

**CET122** 

And CET123

Can be Taken Concurrently



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# **Engineering Tech**

**Engineering** 

#### CET234 Architect CAD (Revit 3D-BIM)

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

In this course, students will review architectural working drawings while covering the basic principles of Building Information Modeling (BIM) through the use of Revit Architecture CAD software. Students will be introduced to the tools of Revit Architecture CAD and parametric modeling. The fundamental concepts covered in this course include: user interface, parameters, families, walls, roof openings, rendering, and printing. Students will produce a variety of architectural working drawings utilizing Revit Architecture CAD software.

### Pre-reqs:

**CET121** 

And CET122

## CET235 CONSTRUCT MGT/JOB COST AND SAF

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines the progression of a building project from its inception to completion along with the administration of it in the office and in the field. Contract law and the legal implications of documents will be discussed. The student will also be familiarized with specifications, shop drawings and computerized project control software.

### Pre-regs:

Or Test & Score: Computer Test - 21

**CET121** 

And ITD100

#### CET236 GLOBAL POSITIONING SYS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Introduction to Global Positioning System to determine location on earth in a three dimensional way (latitude, longitude and elevation). Students will practice the use of electronic receivers using radio signals to collect data and process later using computers. The use surveying and topography mapping is also included.

#### **Pre-reqs:**

**CET227** 



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# **Engineering Tech**

**Engineering** 

#### CET237 INTERPRETING CONSTRUCTION DOC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on interpreting the construction documents for the purposes of estimating, scheduling, and field-directing a construction project. It includes reading the designers' drawings for residential, light commercial, heavy commercial, and civil engineering projects. The specifications for the projects are studied with attention to the materials and installation requirements contained therein. effective Fall 2016: CTCON001

Pre-reqs:

## CET238 TECH PROJECT-CIVIL ENGINEERING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students will apply knowledge acquired from technical courses to work in an interdisciplinary team and complete a comprehensive Civil-Surveying projects. (Bridge-Roadway projects, Construction staking-Superstructure design, Volume calculations-Retaining Wall design) The scope will include research, calculations, CAD drafting, mapping, a report and presentation.

#### **Pre-reqs:**

CET223

Or CET228

#### CET239 BUILDING CODE APPLICATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Commercial building and residential building codes are studied to become familiar with the general intent of the codes in selected areas and how they relate to the construction industry. Special attention is paid to portions of the code that are typically a problem to code officials in the prosecution of their duties.

### **Pre-reqs:**

CET121

Or CET122

And CET237



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# **Engineering Tech**

**Engineering** 

#### DET121 ENGINEERING DRAWING

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This is a beginning drafting course that includes use of instruments, geometric constructions, technical lettering, orthographic projection, auxiliary views, sectional views, dimensioning and conventional practice.

Pre-regs:

#### **DET122 DESCRIPTIVE GEOMETRY**

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course is designed to enable the student to properly visualize any object, regardless of its complexity. The three basic geometric elements (points, lines and surfaces) and their relationships to each other are described in detail.

#### **Pre-reqs:**

**DET121** 

### **DET124 WORKING DRAWINGS**

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

Course covers threads, welding, fasteners, tolerancing, fits, and basic geometric dimensioning as they relate to detail and assembly drawings. Students are required to complete a set of working drawings that are technically correct and feasible for production. Emphasis is placed on the various components that constitute a well-executed drawing.

Pre-reqs:

**DET121** 

And DET125

Can be Taken Concurrently



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# **Engineering Tech**

**Engineering** 

#### DET125 BASIC AUTOCAD

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course begins with basics and gives students hands-on experience using personal computers to create engineering drawings with AutoCAD software. Topics include: basic components of a CAD system, overview of [Windows] operations, input methods, drawing setup and display, editing, dimensioning, text, layers, hatching, blocks and plotting. This course is Ohio TAG approved. OET012 effective Summer 2008. CTAG CTMET005 approved Fall 2019.

Pre-regs:

#### **DET126 CUSTOMIZING AUTOCAD**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Building on concepts learned in Basic AutoCAD, this course focuses on more advanced topics: isomode; attributes; creation of toolbars, pull-down and button menus; creation of custom line types and hatch patterns; and an introduction to the fundamentals of AutoLISP programming.

#### **Pre-reqs:**

**DET125** 

### DET131 Pro/ENG (Creo Parametric)

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This three-dimensional drawing uses Parametric Technology Corporation Pro/ENGINEER software and covers the basic through advanced commands. The basics focus on practical applications of design to develop parametric solid model representations of parts and assemblies. Advanced design features include the use of skeletons, advanced sketching, geometry, patterns, surface options, dimensions, bill of materials, and features, and plotting.

#### Pre-regs:

**DET125** 



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# **Engineering Tech**

**Engineering** 

#### DET132 SolidWorks 3D Print/Scan

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to introduce the student to SolidWorks, a parametric feature-based solid modeling program. SolidWorks is used for the design of parts, assemblies and engineering drawings. The student will design actual mechanical components, and the areas of concentration include: basic program syntax, design intent, top down and bottom up design, and parametric relations. Many parts and assemblies will be developed. Engineering drawings, solid models, and 3D prints will be created. 3D prints also will be generated from 3D-scanned parts.

#### Pre-regs:

**DET125** 

#### DET223 KINEMATICS

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course covers motion of mechanisms. Machine displacement, velocity and accelerations are studied in detail. Using graphical, analytical and numerical approaches, various machine elements are analyzed and designed. The course relates theory learned in the first year with practical machine design applications. PC software programs and spreadsheets are used to verify design solutions

#### **Pre-reqs:**

PHY121

Or PHY121B

#### DET226 GEOMETRIC DIM AND TOL

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

Designed to introduce students to the type of dimensioning that is part of ANSIY14.5M1994 dimensioning standard. General tolerancing methods will be reviewed first, then the geometric characteristics symbols and terms will be discussed. Datums will be defined and modifiers will be identified. The geometric tolerances of form, runout, orientation, profile and location will be analyzed in detail. The GD&T system will then be applied to actual manufacturing drawings. Special attention will be given to the problems that are experienced in industry between design, manufacturing and inspection personnel.

### Pre-reqs:

**DET124** 



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# **Engineering Tech**

**Engineering** 

## DET230 AutCAD Invent 3D Prt/Scan

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

An introduction to solid modeling using Autodesk's Inventor and the tools and commands to complete fully parametric three-dimensional parts, assemblies, presentations, and two-dimensional drawings. The student must have an understanding of computer-aided and mechanical drafting. 3D prints will be created. 3D prints also will be generated from 3D-scanned parts.

#### Pre-regs:

**DET125** 

#### DET231 TOOL DESIGN

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course covers the design and drawing of production jigs, fixtures, and stamping dies. The emphasis in jig and fixtures is placed on coordination of machine tools and standard component parts, using symbol libraries and AutoCAD to draw the final layout. While in stamping dies, a step-by-step approach is emphasized in drawing the details and assembly of a die including material punches, die sets, strippers, gauges, pilots and presses.

#### **Pre-reqs:**

**DET124** 

And DET125

#### EET120 DC CIRCUIT ANALYSIS

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Direct current (DC) circuit analysis. Topics include: voltage, current, resistance, Ohm's law, power, circuit reduction, Kirchhoff's laws, network analysis methods, network theorems, capacitors, inductors, transients and sine wave characteristics. TAG approved course- OET001 effective Summer 2007. CTAG CTEET001 Approved Spring 2012.

### **Pre-reqs:**

	MTH125	Can be Taken Concurrently
0r	MTH125B	Can be Taken Concurrently
0r	MTH135	Can be Taken Concurrently
0r	MTH135B	Can be Taken Concurrently



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# **Engineering Tech**

**Engineering** 

#### **EET122 AC CIRCUIT ANALYSIS**

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Alternating current (AC) circuit analysis and instrumentation. Topics include: phasor analysis, RL, RC and RLC circuits network theorems, power, resonance, fitters, pulse analysis, transformers and three phase systems. TAG approved course-OET003 effective Spring 2008.

#### Pre-regs:

**EET120** 

Or MTH130 Can be Taken Concurrently
And MTH135 Can be Taken Concurrently
Or MTH135B Can be Taken Concurrently

#### EET123 ELECTRONC DEVICES AND CIRCUITS

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Theory, characteristics and applications of solid-state devices. Devices covered include: diodes, bipolar junction transistors, field effect transistors, operational amplifiers, analog and digital voltage regulators.

## Pre-reqs:

**EET120** 

And EET122 Can be Taken Concurrently

## EET125 CIRCUITS MANUFAC TECHNIQUES

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

Safety in the shop and stages of project development are emphasized. Electrical and mechanical shop practice including use of hand tools, through hole and surface mount, soldering techniques, solderless terminations, wire preparations, wiring techniques and parts ordering.

#### Pre-regs:

**EET120** 



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# **Engineering Tech**

**Engineering** 

#### EET126 ELECTRICAL MACHINES

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course covers the principles of electromagnetic induction, dynamo construction, direct current generation characteristics and operation, armature reaction, DC motor characteristics, operation and control, machine efficiency, single and three-phase transformers theory and operation, construction of three-phase transformers, AC motors and generators. Subjects include: polyphase transformers, induction motors, alternators, synchronous motors, single phase induction, universal and specialty motors.

#### Pre-regs:

**EET122** 

Can be Taken Concurrently

#### EET128 NEC AND ELECTRICAL SYS DES

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

A study of the National Electric Code as it applies primarily to the design of large commercial and industrial installations. Emphasis is placed on definitions, calculating conductor and conduct size, selection of circuit over-current protection, grounding, service sizing transformers connections, short circuit analysis, and other related subject material.

#### **Pre-reqs:**

EET122

### EET129 OPTICS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is complementary physics for students in Electrical/Electronic Technology and related fields of study. Topics include: the physical nature of light, optics, lasers, optics and their relation to the electronic field and fiber optics.

#### Pre-regs:

**PHY121** 

Or PHY121B

Or PHY122



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# **Engineering Tech**

**Engineering** 

#### EET142 LGHT DES, APP AND ELECL ELEM I

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Develop the skills to design and apply functional and practical lighting systems for industrial and commercial properties. The topics covered include the physical nature of light, color, and sight behavior; and understanding of photometry of light, along with design criteria and calculations including the zonal cavity method; complete coverage of light sources, and application techniques using fixtures, along with the electrical elements necessary for design and controlling of today's and tomorrow's illumination systems.

Pre-reqs:

#### EET143 LGHT DES, APP AND ELEC ELEM II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course complements Lighting Design, Application and Electrical Elements I. Topics included are advanced lighting design techniques, including hands-on computer studies and in-depth application workshops within the following areas: industrial lighting, exterior lighting, office and educational facility lighting, public building lighting, merchandise and store lighting, along with special applications such as houses of worship, museums, and recreational areas. Also included are sessions on visual performance, in-depth color evaluation, psychological effects of lighting, lighting for improving productivity, safety and security lighting, lighting economics, and energy-saving techniques, calculations, and evaluations, with guidelines for ASHRAE 90. 1-2001.

Pre-regs:

### EET225 DIGITAL COMM AND SYS ANALY

Credit Hours: 3 Contact Hours: 6 Lecture Hours: 0 Lab Hours: 6 Other Hours: 0

The course deals with implementing data acquisition, instrumentation control, data analysis and presentation. Serial and parallel interfaces are used for the instrumentation communication to the networks (internet and intranet). Programming involves using a graphical user interface (GUI).

**Pre-reqs:** 

**EET248** 

And EET262

Can be Taken Concurrently



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# **Engineering Tech**

**Engineering** 

#### **EET226 TRANSMISSION AND DISTRIBUTION**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course encompasses power transmissions and distribution systems, components and analysis. Field trips to appropriate sites comprise the laboratory requirement.

## Pre-reqs:

**EET122** 

## EET227 PLCS AND INDUSTRIAL CONTROLS I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

A presentation of techniques, application and development analysis of relay control circuits with implementation of electromechanical devices, programmable controllers and variable frequency drives. Circuits, devices and techniques studied include control of motor starting, motor speed control, machine cycle control, control components, pilot devices, maintenance and troubleshooting circuits. CTAG approved Spring 2012 TMSBS. TAG approved Summer 2017 OET022

#### **Pre-reqs:**

**EET120** 

Or EST130

Or EST230

## EET228 PLCS AND INDUSTRL CONTROLS II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Application and analysis of microprocessor-based computer systems and programmable logic controllers to industrial control systems. Introduction to closed systems control (PID control) and robot control. Introduction and application of Programmable Logic Control Network Interfaces. Human-machine interfaces topics are also addressed.

## Pre-reqs:

**EET227** 



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# **Engineering Tech**

**Engineering** 

#### EET230 ELECTRONIC CIRCUITS I

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

A study of semiconductors, field effect transistors, h-parameters, device equivalent circuits, small signal analysis, multistage amplification, decibels, frequency analysis, large signal amplifiers, thyristors, power amplifier design, differential amplifiers, operational amplifiers, feedback and oscillator circuits, electronically regulated power supplies, and applications of circuits with these devices. TAG approved course- OET005 effective Spring 2008.

## Pre-reqs:

**EET123** 

#### **EET231 ELECTRONIC CIRCUITS II**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

A study of power amplifier design, heat sinking, differential amplifiers, operational amplifiers, IC fundamentals, feedback and oscillator circuits.

#### **Pre-reqs:**

**EET230** 

## **EET232 INDUSTRIAL ELECTRONICS**

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

The course consists of digital and analog industrial circuits, such as interfacing to programmable logic controller, DC to DC converters, AC inverters, thyristor phase control, pulse generation and electronic motor speed and motion control with supporting laboratory exercises.

#### Pre-regs:

**EET123** 



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# **Engineering Tech**

**Engineering** 

#### EET233 Tech Proj-Electrical/Electroni

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

A course designed to allow the student to demonstrate capabilities acquired during previous course work in the electrical/electronic program. The student will choose an approved project compatible with interest and background. The project must be in the area of electrical and/or electronic engineering technology. The scope will be determined by the project, but in general, will include research, testing, drawing, actual construction, and a report and presentation.

### Pre-reqs:

**EET123** 

And EET227

#### EET235 TECH PROJECT ELECTRONIC

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

Designed to allow the student to exercise the capabilities developed in the Electronic Engineering Technology program. The student will choose an approved project compatible with interest and background. Project may be a design, test or microcomputer-based project. During the project, performance will be verified at given intervals with suitable test procedures.

## Pre-reqs:

**EET125** 

And EET230

And EET248

#### **EET244 ELECC TELECOMMUNICATIONS**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

A course dealing with telecommunications hardware and software. Laboratory exercises address both hardware and software applications.

## Pre-reqs:



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# **Engineering Tech**

**Engineering** 

#### EET246 TECH PROJ - COMP NETWKG

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A course designed to allow the student to use the capabilities developed in the networking program courses to carry a project from concept to completion.

#### Pre-regs:

#### **EET248 WORKSTATION INTERFACING**

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

A study of digital circuitry and current operating systems for port input and output management to microcontroller and personal computer bus architecture. The course includes digital and analog interfacing using serial, parallel ports, and various current interface ports. TAG approved course- OET004 effective Spring 2008.

#### **Pre-reqs:**

CSE229

And EET262

Can be Taken Concurrently

#### EET262 PULSE AND DIGITL INTEGRATD CIR

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course is a study of pulse terminology, number systems and codes, TTL and CMOS IC logic circuits and interfacing, Boolean Algebra and logic simplifications, integrated arithmetic circuits, counter, register, encoders, decoders, multiplexers, and demultiplexers, display devices, IC flip-flops, hardware minimization techniques are also covered in conjunction with logic circuit design. TAG approved OET002 effective Summer 2009. CTAG CTEET002 approved Spring 2012.

### **Pre-reqs:**

Or CSE229

Or CSE233

ECA128

Or ECA222



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# **Engineering Tech**

**Engineering** 

#### EET263 INDUSTRIAL SENSORS/ADV APPLCS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

EET263 will cover common sensors used throughout industry. Students will see how basic concepts discussed in circuit analysis courses are applied to sensor design and applications. Course will provide hands on labs in wiring and testing of various types of sensors used in industry.

#### Pre-regs:

**EET120** 

Or EST130

Or EST230

#### **MET123 MATERIAL SCIENCE**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The study of the science of materials used in the fields of engineering and manufacturing. Emphasis is placed on the physical properties of materials. Areas covered include: stress and strain, hardness, creep, fatigue, metallurgy, equilibrium diagrams, and heat treatments. Advantages, disadvantages and applications of ferrous metals, non-ferrous metals, plastics, elastomers, composites and ceramics are discussed.

#### Pre-regs:

#### MET124 STATICS/STR OF MATERIALS

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

The study of major force systems under conditions of equilibrium. Various methods are used to analyze the effects loads have on structural members and machine components. Topics include force systems, friction, stress and strain, moment and shear diagrams, centroids, moments of intertia, and beam deflection analysis. Emphasis is placed on learning the fundamentals and applying them to solving problems. TAG approved course- OET007 effective Spring 2008.

# Pre-reqs:

PHY121 Can be Taken Concurrently

Or PHY121B

Or PHY221 Can be Taken Concurrently



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# **Engineering Tech**

**Engineering** 

#### MET221 ADV STRENGTH OF MATERIAL

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

The study of torsion, columns, combined stresses, thin-walled pressure vessels, connections (bolted, riveted and welded), and statically indeterminate beams. Emphasis is placed on learning the fundamentals and applying them to solving problems. TAG approved course- OET008 effective Spring 2008.

#### Pre-regs:

**MET124** 

#### MET222 FLUID POWER

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

The study of the subjects essential to understanding the design, analysis, operation and application of fluid power systems is the focus of this course. Theoretical principles will be used to develop an understanding of hydrostatics and hydrodynamics. Teamwork skills will be reinforced through hands-on experimentation and written presentation of results. Students will submit formal reports in a format that requires the use of word processing and spreadsheet software. TAG approved course - OET009 effective Summer 2008.

#### **Pre-reqs:**

**MET124** 

## **MET223 DYNAMICS**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

Methods are developed to analyze kinematics and kinetics of bodies. Practical derivations, equations, and applications of displacement, velocity, acceleration, work, energy, power, impulse, and momentum in both planar and rotational motion will be applied.

#### Pre-regs:

**MET124** 



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## **Engineering Tech**

**Engineering** 

## MET225 MANUFACTURING PROCESSES

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Students will investigate a variety of manufacturing techniques including casting, powder metallurgy, metal forming, hot and cold working, arc and gas flame welding, rapid prototyping, microelectronic manufacturing, and chip-type machining processes. Scheduled tours of local industry and/or guest speakers augment the material for the traditional format. The web 3 format will replace tours with DVD review and reflection assignments of all manufacturing processes. CTAG CTMET004, effective fall 2019.

#### Pre-regs:

#### MET226 TECH PROJECT-MECHANICAL

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 0 Lab Hours: 4 Other Hours: 0

Students will apply knowledge acquired from technical courses and practical work experience to work independently and complete a technical task. A project is chosen by the student and proposed for approval by the instructor. Topics may be chosen from any area of mechanical, electro-mechanical, design, manufacturing, testing, quality assurance, etc. The scope of the project could include a literature survey, schematics, research analysis, design, fabrication, assembly and testing to create a new or optimize a current design or system. The project will entail students working in teams with elements of both design and mechanical engineering technology.

#### Pre-regs:

DET125 Can be Taken Concurrently
And MET228 Can be Taken Concurrently

#### MET227 THERMODYNAMICS & HEAT TRANSFER

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Fundamentals of thermodynamics: heat, work and energy. Thermodynamic processes: constant volume, constant pressure, isothermal, adiabatic and polytropic, P-V-T relationships, work and internal energy. Laws of thermodynamics: enthalpy, entropy and reversibility. Gas power cycles and efficiencies: Carnot, Otto, and Diesel. Fundamentals of heat transfer: conduction, convection, radiation and heat exchangers. Emphasis is placed on learning the fundamentals and applying them to solving problems.

### Pre-reqs:

PHY121

Or PHY121B



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# **Engineering Tech**

**Engineering** 

#### MET228 MACHINE DESIGN

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Descriptive, dimensional, and kinematic analysis of machine components including bearings, shafts, couplings, cam, brakes, gear drives, belt and chain drives, and clutches are the focus of this course. Laboratory work includes problem solving in the design of machine components with spreadsheet analysis when necessary.

#### Pre-regs:

**MET124** 

## MET229 Intro to Alt & Ren Energy/Fuel

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides an introduction to alternative and advanced energy resources such as solar, wind, geothermal, hydroelectric, bio-mass, alternative fuels and an introduction to fuel cells. The technology of each energy source, along with the efficiency and cost associated with energy generation, conversion and distribution is studied. The introduction to fuel cell technology includes the components (anode, cathode, electrolyte, and flow fields), fuels (hydrogen and hydrocarbons) and types of fuel cells (Polymer Electrolyte Membrane, Solid Oxide, Alkaline, Phosphoric Acid and Molten Carbonate). Laboratory experiences include solar, wind, and fuel cell experiments.

#### Pre-regs:

### MET230 ANA/APPS OF FUEL CELLS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course addresses the different types of fuel cells:Polymer Electrolyte Membrane, Solid Oxide, Alkaline, Phosphoric Acid, Molten Carbonate, and Direct Methanol among others. Material properties, operating characteristics, functions and real world applications are discussed and analyzed through different experiments.

#### **Pre-reqs:**

**MET229** 



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# **Engineering Tech**

**Engineering** 

#### MET231 FUEL CELL SYSTEMS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers in detail fuel cell stack, fuel processor, power conditioner, heat exchanger and the remainder of subsystems for the fuel cell to function as required. Topics include: interconnect plates, series versus parallel electrical conduction, hydrogen fuel and storage, hydrocarbons and fuel processing, instrumentation and programming, power conditioning of DC and AC, heat transfer, and interfacing with the power grid.

#### Pre-regs:

**MET230** 

#### MET232 FUEL CELL PROJECT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

In coordination with faculty advisor, student works on a project to design and build a fuel cell system by selecting a marketing need (vehicular, portable, home, industry...), determining components, developing cost justification, documenting design process, creating bill of materials, procuring necessary materials, documenting methodology assembling a model, evaluating performance, and presenting the proposal.

#### Pre-regs:

**MET231** 

Can be Taken Concurrently

### MST126 PIPEFITTING PRINC AND APPLIC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Piping systems, valves, fittings, metal piping and non-metallic piping are identified and their use and maintenance are presented. Strainers, filters, traps and other accessories such as pressure and temperature gauges are discussed in detail, including a detailed description of their operation and required maintenance. The procedures, use, and application of the BOCA basic plumbing code is also covered.

**Pre-reqs:** 

**Engineering Independent Study** 



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# **Engineering Tech**

**Engineering Independent Study** 

ETD201	FNG	INDE	PENDENT	CTHIDV
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Credit Hours: 1 Contact Hours: 10 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Engineering Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Engineering Technology will determine course content, meeting schedules and credit hours.

Pre-regs:

#### ETD203 ENG INDEPENDENT STUDY

Credit Hours: 3 Contact Hours: 30 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Engineering Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Engineering Technology will determine course content, meeting schedules and credit hours.

**Pre-reqs:** 

### ETD223 ENGINEERING CO-OP

Credit Hours: 3 Contact Hours: 30 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Co-op opportunities are available to students enrolled in Engineering Technologies. Students may contact their faculty advisors or Career Services for more information.

Pre-regs:

**Engineering/Applied** 



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# **Engineering Tech**

**Engineering/Applied** 

#### AET121 SUSTAINABLE/AET SOURCES

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the student to alternate/sustainable energy sources such as solar, wind power, geothermal, hydroelectric, bio-energy and fuel cells. The course addresses solar topics such as efficiency of photovoltaic cells, both tracking and stationary solar arrays; wind power topics such as where to install wind farms; geothermal power topics such as how to take advantage of the earth's core temperatures to efficiently heat and cool a facility; hydroelectric and microhydroelectric power topics such as generation and distribution of power to customers; bio-energy topics such as biomass to energy and algae generation of petroleum products and hydrogen gasses; and fuel cell topics such as components (anode, cathode, electrolyte), fuels (hydrogen and hydrocarbons), and types of fuel cells (polymer electrolyte membrane, solid oxide, alkali, phosphoric, molten carbonate).

Pre-regs:

#### AET122 ANALYSIS/APP OF SET

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course addresses the different types of sustainable alternative energy and the analysis, applications, and maintenance of sustainable alternative energy systems. Predictive analysis will be addressed to identify problems before a catastrophic failure develops. Infrared thermal imaging technology procedures will be covered in this course. Ultrasonic examination procedures will be addressed to detect problems. Electrical testing procedures will be covered with a review of AC and DC circuit analysis. Physical inspections, operating characteristics, functions, and real world applications are discussed and analyzed through different experiments and site visits.

### Pre-reqs:

AET121

## AET123 SUSTAINABLE/ALT ENERGY SYS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers in detail complete sustainable alternative energy systems including service, inspections, and predictive maintenance. This course will address the subsystems and balance of plant systems for the sustainable alterative energy systems. Topics include: safety procedures, interconnect systems, series versus parallel electrical conduction, power conditioning of DC and AC voltages and currents, heat transfer, and interfacing with the power grid.

Pre-reqs:

AET122



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## **Engineering Tech**

**Engineering/Applied** 

## AET124 SUSTAINABLE/ALT ENERGY PROJECT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

In coordination with a faculty advisor, the student works on a project to design and build a sustainable alternative energy system by selecting a marketing need (home, industry...), determining components, developing cost justification, documenting design process, creating bill of materials, procuring necessary materials, documenting the methodology, assembling a model, evaluating performance, and presenting the proposal.

#### Pre-regs:

**AET123** 

#### AET221 SOLAR THERMAL SYSTEMS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course explores the operation, design, installation, maintenance, performance estimting, site selection considerations and troubleshooting of solor thermal systems for consumer and commercial applications. This course explores the following topics: site cost suitability and load analysis, solar heating saftey practices, standards, codes and certifications, system selections for specific climates and applications, operation and installation methods, proper use of balance-of-system components and materials, solar heating system maintenance, geothermal energy and heat pumps.

#### Pre-regs:

AET121

# **AET222 SOLAR PHOTOVOLTAIC SYSTEMS**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course explores the operation, design, installation, maintenance, performance estimating, site selection considerations and troubleshooting of solar photovoltaic systems for consumer and commercial applications. The course prepares students for the North American Board of Certified Energy Practitioners (NABCEP) Photovoltaic (PV) Entry Level Exam. This course explores the following topics: Photovoltaic markets and applications, photovoltaic system safety, fundamentals of photovoltaic solar energy, photovoltaic system components and array sizing principles, photovoltaic system electrical and mechanical design, photovoltaic system performance analysis, maintenance and troubleshooting and system selection for specific climates and applications. TAG approved ORE003 CTAG: CTSP001

# Pre-reqs:



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## **Engineering Tech**

**Engineering/Applied** 

#### AIT122 MACHINE TOOLS

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course will cover basic machine operations used in machining industries. Topics include safety, basic machine functions, inspection processes, precision measuring tools, layout procedures, cutting tools, proper machine settings and various machine setups to accomplish laboratory projects. The student will be introduced to soft skills necessary to function in a team environment with a general focus on team building, team problem solving and team decision making.

Pre-reqs:

#### AIT123 ADVANCED MACHINE TOOLS

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course will cover advanced machine operations used in the area of machining industries. Topics include safety, advanced machine functions, inspection processes, precision measuring tools, layout procedures, cutting tools, proper machine settings and various machine setups to accomplish laboratory projects. The student will apply soft skills necessary to function in a team environment with a general focus on team building, team problem solving and team decision making.

Pre-regs:

AIT122

### AIT124 PRINCIPLES OF RIGGING

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

Provides a study of safe rigging principles, practices, and equipment. Topics of study include fiber and wire rope, block and tackle, lift and rigging chain, proof test, safe working load, design factor, sling geometry, fittings, and lifting and moving equipment.

Pre-regs:



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# **Engineering Tech**

**Engineering/Applied** 

#### AIT125 COMMERCIAL PLUMBING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to provide the student with an overview of the tools, materials, fixtures, practices, and processes used in commercial and residential plumbing. A focus on design and utilization with respect to traps, drains, vents, sizing, and overall codes will be addressed. Joining, design characteristics, and application for the various types of plumbing are also covered in detail.

Pre-regs:

#### AIT126 IND ELECL APPLIC AND SAFETY

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course covers an overview of basic commercial/industrial electrical applications. Topics include safe industrial/commercial: electrical principles and applications, wiring techniques and procedures, and basic parallel and series circuits. Safe and effective multimeter usage and industrial instrumentation.

**Pre-reqs:** 

### AIT127 LOW PRESSURE STEAMPLANT OPERTS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the principles and applications of low pressure (15psi or less) boiler operation and construction. Principles and applications of maintenance and safety are also covered in detail. This course also counts toward the overall hours toward taking your low psi boiler operator's license and helps to prepare you to take the test. This course counts for 1,400 hours of the state-required experience hours needed to apply to take the low pressure boiler operator's licensure test.

Pre-reqs:



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# **Engineering Tech**

**Engineering/Applied** 

#### AIT128 HIGH PRESSURE STEAMPLANT OPERT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the principles and applications of high pressure (15psi or more) boiler operation. Topics include: Boiler Feed pumps and fuel feeder, feedwater heaters and feedwater treatment, and fuel combustion. Principles and applications of maintenance and safety are also covered in detail. This course also counts toward the overall hours towards taking your high psi boiler operator's license and helps to prepare you to take the test. This course counts for 1,100 hours of the state-required experience hours needed to apply to take the high pressure boiler operator's licensure test.

Pre-regs:

#### AIT129 STATIONARY STEAMPLANT ENGINERG

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the principles and applications of Ohio code law for boiler operation, abatement equipment, boiler design and application mathematics, duplex pump and steam engine. This course also applies towards the hours necessary towards the 3rd class stationary engineer's license exam. This course counts for 1,000 hours of the state-required experience hours needed to apply to take the third-class stationary engineer's state license exam.

**Pre-reqs:** 

### AIT130 STRUCTURAL MAINTENANCE WELDING

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course will cover safe working procedures of structural/ maintenance welding and the student will lay out and set up various structural welding scenarious using gussets, back plates, and other standard repair implements. They will be supervised for proper form and procedure while performing the required practices in lab. The preparation, cutting and joining of carbon steel (A-36) using oxy/acetylene gas and SMAW (DCEP) electric arc in the flat, horizontal, vertical and overhead positions will also be performed.

Pre-reqs:



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# **Engineering Tech**

**Engineering/Applied** 

#### AIT131 ELECTRICAL APPLICATIONS SFTY

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course provides the knowledge and skills required to understand, safely service and troubleshoot basic electrical circuits. Basic electricity and DC circuits, as well as proper meter use, are explained. The relationship and understanding of current, voltage, and power schematics, troubleshooting basic electricity, digital concepts, PLC concepts and electronics are covered.

Pre-reqs:

#### AIT132 STATIONARY STEAMPLANT ENGINERG

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course covers the principles and applications of Ohio code law for boiler operation, abatement equipment, boiler design and application mathematics, duplex pump and steam engine. This course counts for 1,000 hours of the state-required experience hours needed to apply to take the third-class stationary engineer's state license exam.

#### **Pre-reqs:**

AIT122

## AIT133 ADV ELECRICL APPS AND SFTY

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course is designed specifically for non-electrical personnel looking to gain advanced knowledge of circuit analysis and an understanding of analog signals used for instrumentation devices. This course will also provide switching, programming logic controller (PLC), and basic logic concepts and fundamentals of computer based systems.

#### Pre-regs:

**AIT131** 



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## **Engineering Tech**

**Engineering/Applied** 

#### AIT134 PREVENT/PREDICT MTCE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to familiarize the student with preventive maintenance practices which includes the regular inspection, lubrication, testing, adjustment, and analysis of equipment. Included is the framework for all planned maintenance activity to correct potential problems identified by inspection resulting in optimized equipment performance and life. An introduction to predictive maintenance practices will be covered.

#### Pre-regs:

And MST125

MST221

#### AIT136 ALTERNATE ENERGY SOURCES

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to expand a student's knowledge of different forms and ways to produce energy without conventional combustion fossil fuels. This class gives the student the needed information to explain why and how we generate many forms of alternative energy and why it is important. It discusses the needs and uses of wind turbines, solar, fuel cells, and other alternative energy sources as part of energy solutions in our economy.

### Pre-regs:

## AIT137 CAD/CAM

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course is designed to give a student the basic understanding of programming for machining centers and for turning centers, using the latest Computer Aided Design/Computer Manufacturing CNC programming software.

### **Pre-reqs:**

AIT122

Or ARL129

And IET223



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## **Engineering Tech**

**Engineering/Applied** 

#### AIT138 ROOT CAUSE ANALYSIS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course outlines a structured approach to identifying the factors that resulted in the nature, magnitude, location, and timing of harmful outcomes (consequences) of one or more past events. Root Cause Analysis identifies what behaviors, actions, inactions, or conditions that need to be changed to prevent recurrence of similar harmful outcomes and to identify the lessons learned to promote the achievement of more desirable outcomes or consequences. This course identifies and applies the major tools needed to achieve positive results.

### Pre-reqs:

#### **AIT220 Industrial Robotics**

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course will provide knowledge and skills to setup and program an industrial grade robot. The student will use a FANUC robot and simulation software to acquire hands on experience working with programming software, troubleshooting, and to perform a complete system setup.

#### **Pre-reqs:**

**AIT139** 

## AIT221 ADVANCED CNC PROGRAMMING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover advanced features of machining and turning center operations including programming, editing, proper installation and removal of cutting tools, safety and actual running of equipment both manually and in programmed modes. The student will apply soft skills necessary to function in a team environment with a general focus on team building, team problem solving and team decision making.

#### Pre-regs:

Or ARL121

Or ARL122

**IET223** 



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# **Engineering Tech**

**Engineering/Applied** 

#### AIT222 PREDICT MTCE ANALYSIS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed to familiarize the student with predictive maintenance practices based on manufacturer's recommendations, industrial operating environment, and preventive maintenance records. The course will cover all aspects of planned corrective maintenance schedules and procedures based on the prediction of machinery wear averting untimely failure. An introduction to failure analysis will also be covered.

#### Pre-regs:

**AIT134** 

## AIT225 ADVANCED CAD/CAM

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course is designed to advance the student's knowledge of Computer Aided Design/Computer Aided Manufacturing CNC programming software.

#### **Pre-reqs:**

**AIT137** 

### AIT226 ROBOTIC VISION

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will provide knowledge and skills to set up and program an industrial robot for vision applications. Student will learn about hardware, software, and concepts for setting up a vision system for a Fanuc robot. At completion of course student will be able to setup an industrial robot tocomplete a vision task.

#### Pre-regs:

**AIT220** 



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# **Engineering Tech**

**Engineering/Applied** 

#### ARL121 CNC LATHE OPERATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This Computer Numerical Control course has been designed to help students read, understand and develop the confidence to edit the various programming formats used in standard EIA/ISO, Conversational and Macro types of programming used in lathe operations. The students will be given the opportunity to apply the information learned from the lecture portion of the course on the lathes available to enter the various Ariel styles of programs into the machine tool control.

Pre-regs:

#### ARL122 CNC MILL OPERATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This Computer Numerical Control course has been designed to help students read, understand and develop the confidence to edit the various programming formats used in standard EIA/ISO, Conversational and Macro types of programming used in mill operations. The students will be given the opportunity to apply the information learned from the lecture portion of the course on the mills available to enter the various Ariel styles of programs into the machine tool control.

Pre-regs:

## ARL123 CNC GRINDING OPERATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This Computer Numerical Control course has been designed to help students read, understand and develop the confidence to edit the various programming formats used in standard EIA/ISO, Conversational and Macro types of programming used in various grinding operations. The students will be given the opportunity to apply the information learned from the lecture portion of the course on the grinders available to enter the various Ariel styles of programs into the machine tool control and to develop the ability for the various aspects of OD grinding.

Pre-reqs:



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# **Engineering Tech**

**Engineering/Applied** 

#### ARL124 BASIC METROLOGY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides an in-depth study of measuring principles, instruments, and techniques. The measuring instruments most commonly used in industry, including coordinate measuring machines, are covered. Emphasis is placed on proper use of equipment in terms of prevention and minimization of reading errors as related to Geometric Dimensioning and Tolerances.

Pre-regs:

#### ARL125 METALLURGICAL INSPECTION

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course has been designed to give the student a working knowledge of the processes in the manufacturing of the various types of steel and iron and the advantages and disadvantages of each. The student will be able to identify various metals from a typical color code chart as well as identify the visual characteristics of each material. The various tests used for problems from stress, work hardening, welding, as well as other evidence will be covered.

Pre-regs:

### ARL126 METALLURGY FOR FERROUS MATL

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will cover the processes used in the manufacturing of the various types of ferrous materials and their characteristics. The products covered will range from basic cast iron through the advanced materials such as titanium. The course will also go into the detail of the properties of each of the metals and why they are chosen for a particular product, such as Ariel compressor components, and the newer materials used in automobiles, armor plating, and aerospace parts.

Pre-regs:



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# **Engineering Tech**

**Engineering/Applied** 

#### ARL128 PRECISION GRINDING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to give the student an introduction to the different types of precision grinding. Both CNC and manual grinders will be discussed. The manual function and all aspects of preparing grinding wheels for operation, including the basics of selecting, dressing, and balancing the different types of grinding wheels as applied to the various types of metal will be discussed in great detail. The set-up of specialized grinding fixtures will be explained. All safety issues will be stressed.

Pre-regs:

#### ARL129 FUNDAMENTAL OF CNC OPERATIONS

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

The course will cover features of the mill and lathe, manual operations and all aspects of preparing machine tools for operation (including all aspects of mounting and setting up cutting tools), manually entering and test running programs including MDI operation, and the restarting of the programs at random stopping points.

**Pre-reqs:** 

### ARL130 CNC TRNG CTR PROG EIA FORMAT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This Computer Numerical Control course provides the core knowledge to read, understand, and edit the various programming formats used in standard EIA/ISO, and Macro types of programming used in turning center operations. With assigned lab projects, the student will reinforce the concepts covered.

Pre-regs:



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# **Engineering Tech**

**Engineering/Applied** 

#### ARL131 CNC MACHING CTR PRG EIA FRMT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This Computer Numerical Control course provides the core knowledge to read, understand, and edit the various programming formats used in standard EIA/ISO, and Macro types of programming used in turning center operations. With assigned lab projects, the student will reinforce the concepts covered.

Pre-regs:

## ARL132 CNC TURNING CTR PRG-CONV FRMT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This Computer Numerical Control course provides the core knowledge to read, understand, and edit the various programming formats used in standard Conversational, Mazatrol, and Macro types of programming used in turning center operations. With assigned lab projects, the student will reinforce the concepts covered.

**Pre-reqs:** 

### ARL133 CNC MACHNG CTR PROG-CONV FRMT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This Computer Numerical Control course provides the core knowledge to read, understand, and edit the various programming formats used in standard Conversational, Mazatrol, and Macro types of programming used in machining center operations. With assigned lab projects, the student will reinforce the concepts covered.

Pre-regs:

ARL129



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# **Engineering Tech**

**Engineering/Applied** 

#### ARL139 MECHANICAL FASTENERS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will present a practical guide pertaining to mechanical fastener systems for technicians who work with a wide variety of fasteners found in industry. The course will outline complex and critical design elements focused on safety, reliability and long service life.

Pre-regs:

#### ARL140 MATERIAL HAND & COMP PREP

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the procedures, practices, and methods of lifting and maneuvering large compressor parts with appropriate crane lifting techniques. Students will lift guides, frames, cylinders and other large parts of varying sizes to learn appropriate techniques for lifting and positioning equipment for part cleaning and assembly tasks.

**Pre-reqs:** 

### ARL141 COMPRESSOR SUB ASSEMBLY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the procedures, practices, and methods for executing all of the sub assembly processes implemented in the assembly of natural gas compressors. Students will identify all of the sub assembly components, execute the assembly process for the components, and prepare a complete sub assembly which could be used as a part of a fully assembled compressor.

Pre-regs:



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# **Engineering Tech**

**Engineering/Applied** 

#### ARL142 SMALL UNIT COMPRESSOR ASSEMBLE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the procedures, practices, and methods for assembling small unit natural gas compressors. Each component and part of the small unit natural gas compressor will be identified. Procedures for assembling parts and components will be demonstrated and practiced so that the student will be ready to assemble a small unit natural gas compressor.

Pre-regs:

#### ARL143 COMPRESSOR COATING PROCESSES

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course instructs students in the processes, procedures, and techniques for coating compressors in the production environment. There is a review of safety procedures for working with paint, pigments, thinning agents and industrial painting equipment. Students will learn fundamentals of how to operate automatic coating equipment used in paint booths. Manual coating processes and techniques will also be addressed.

**Pre-reqs:** 

### ARL144 CYLINDER HYDROTESTING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover the basic knowledge and skills required to successfully hydrotest cylinders for compressor operations. Students will evaluate work orders and understand the requirements for each job as dictated by the work order. They will complete all steps required to prepare a cylinder for hydrotesting. They will learn how to execute the test process and then close out a test with final documentation.

Pre-regs:



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## **Engineering Tech**

**Engineering/Applied** 

### ARL145 COMPRESSOR ION NITRIDING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course teaches students about the processes, procedures, and techniques for ion nitriding compressor parts in preparation for nitriding equipment. Students will learn how to prepare a load for a nitriding operation and appropriately remove parts from the nitriding unit upon completion of the nitriding operations.

Pre-regs:

#### ARL146 COMPRESSOR DOC INTEGRATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover documentation, information access, and reporting required to successfully engage in the compressor assembly process. The build book will be a primary focus of the course where students will understand how the book is generated and used to help guide successful assembly of compressors. Students will also use MRP systems to locate and report data to fuel the assembly process. ISO procedures will also be identified and reviewed.

**Pre-reqs:** 

### ARL221 IND LAYOUT AND TRIGONOMETRY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The course covers algebra, geometry, and trigonometry as they are applied in the machining industry. The Cartesian coordinate system will help in determining functions of angles greater than 90°. The course concludes with oblique angle trig (law of sines and law of cosines).



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## **Engineering Tech**

**Engineering/Applied** 

### ARL222 ADVANCED CNC OPERATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the more advanced features of CNC machine tools, including more difficult blueprints to work from, to include more complex operations such as thread cutting on the CNC lathe as well as helical circle milling on the CNC vertical machining center. The more complex programs will be handwritten and will include trigonometry calculations for the correct cutting paths. The students will also learn the use of sub programs and when to use more complex canned cycles.

Pre-regs:

#### ARL223 MFG CELL LDSHP AND COMMUNIC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to educate the student on the cellular manufacturing concepts and overall plant layout logistics & efficiencies. Machining family concepts will be discussed and explored in detail. The theory and application of leadership will also be explored in a manufacturing environment as well as the process of effective group communication and various communication models .

**Pre-reqs:** 

### ARL224 MASTER CAM OPERATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to give the student an introduction to the different types of precision grinding. Both CNC and manual grinders will be discussed. The manual function and all aspects of preparing grinding wheels for operation, including the basics of selecting, dressing, and balancing the different types of grinding wheels as applied to the various types of metal will be discussed in great detail. The set-up of specialized grinding fixtures will be explained. All safety issues will be stressed.



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## **Engineering Tech**

**Engineering/Applied** 

### ARL230 FIELD SERVICE OPERATIONS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover the common challenges that can arise when working in a field environment to disassemble, rebuild, or assemble compressors and compressor components. Strategies will be taught for dealing with environmental conditions, required adjustments for different compressor applications, and working effectively with customers in the field.

Pre-regs:

#### ARL231 COMPRESSOR FINAL INSPECTION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover the final inspection process which is performed before a compressor is certified as ready to be delivered. Students will learn the final inspection process and evaluate compressors in the key inspection areas including clearances, alignment, and component balancing. Students who complete this course will be capable of executing a final inspection of any compressor.

**Pre-reqs:** 

### ARL232 ROTARY UNIT ASSEMBLY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the procedures, practices, and methods for assembling rotary unit natural gas compressors. Each component and part of the rotary unit natural gas compressor will be identified. Procedures for assembling parts and components will be demonstrated and practiced so that the student will be ready to assemble a rotary unit natural gas compressor.



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## **Engineering Tech**

**Engineering/Applied** 

### ARL233 IND APP, CUSTOMERS & PRODUCTS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will explore the fundamental uses of compressors in a production environment. Types of customers, distributors and end users pertaining to their specific needs will be reviewed. Specific applications will be related to the applicable compressor unit families. Key subcomponents of the compressor system will also be reviewed and studied as to how they operate as a compressor unit in a package.

Pre-reqs:

### ARL234 GAS COMPRESSION/FLOW DYNAMICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will review basic math required to understand equations and ratios which impact the function of natural gas compressors. Material will focus on understanding equations which are important to compressor assembly and operations. Students will also review variables and understand the relationships between variables in these types of equations.

**Pre-reqs:** 

## ARL235 MIDSIZE UNIT COMPRESSOR ASSEMB

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the procedures, practices, and methods for assembling midsize unit natural gas compressors. Each component and part of the natural gas compressor will be identified. Procedures for assembling parts and components will be demonstrated and practiced so that the student will be ready to assemble a midsize unit natural gas compressor.

Pre-regs:

ARL142



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## **Engineering Tech**

**Engineering/Applied** 

### ARL236 ADV CYLINDER HYDROTESTING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course builds on the knowledge and skills taught in the cylinder hydrotest course to show students how to troubleshoot more advanced applications of cylinder testing processes. The course will further explore hydrotesting equipment, resolving advanced issues. Students will learn how to identify and resolve advanced leakage issues that may arise. They will also learn procedures and processes for additional testing processes using helium gasses in rotary cylinders.

### Pre-regs:

ARL144

#### ARL237 ADV COMPRESSOR COATING PROC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course builds on the compressor coating processes course to teach coating processes of large and mid-sized units. The course also addresses maintenance and troubleshooting of automated paint equipment and paint booth environments.

#### **Pre-reqs:**

ARL143

## ARL238 ADV COMPRESSOR ION NITRIDING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course instructs students in the material hardening process and explores the equipment used to harden materials pertaining to the ion nitriding process. Students will understand the metallurgical changes occurring in the materials that result in hardening the outer case. Components of the nitrider will be defined and basic troubleshooting and maintenance tasks will be addressed.

### Pre-regs:

ARL145



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## **Engineering Tech**

**Engineering/Applied** 

### ARL239 LARGE LINE UNIT COMP ASSEMBLY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the procedures, practices, and methods for assembling large unit natural gas compressors. Each component and part of the natural gas compressor will be identified. Procedures for assembling parts and components will be demonstrated and practiced so that the student will be ready to assemble a large unit natural gas compressor upon completion.

Pre-reqs:

#### CDL121 CDL-CLASS A-SAFE OPER & CONTRO

Credit Hours: 5 Contact Hours: 6 Lecture Hours: 4 Lab Hours: 2 Other Hours: 0

This course will provide the student with instruction and requirements needed to take the written CDL permit test (CDIP). Employability skills and basic first aid/CPR will be addressed. Instruction and requirements necessary to take the (H) hazardous materials and (T) double and triple configuration endorsement knowledge tests is included. Instruction consists of classroom and simulator. Students must be at least 18 years of age and able to provide a valid Ohio State Driver's License with minimum two years experience, proof of U. S. Citizenship (birth certificate and Social Security card), meet minimum Department of Transportation (DOT) medical and vision standards and pass a DOT drug screen. Individuals seeking the (H) endorsement are required to undergo a security threat assessment and obtain clearance from the Transportation Security Administration (TSA).

Pre-regs:

### CDL122 CDL-CLASS A-ADV OPER & MAINT

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course will provide the student with the instruction and requirements needed to take the Ohio CDL Class A driver's license examination. Students will acquire the advanced skills needed to respond to road emergencies, hazards and malfunctions. Non-vehicle activities include log keeping, trip planning and driver's health. Instruction will include classroom, simulator, behind the wheel range and street practice. Students must be at least 18 years of age and able to provide a valid Ohio State Driver's License with minimum two years experience, proof of U. S. Citizenship (birth certificate and Social Security card), meet minimum Department of Transportation (DOT) medical and vision standards and pass DOT drug screen. Individuals seeking the hazardous (H) endorsement are required to undergo a security threat assessment and obtain clearance from the Transportation Security Administration (TSA).



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## **Engineering Tech**

**Engineering/Applied** 

#### CDL123 COMM DRIVERS LICENSE-CLASS A

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

This course will provide the student with the instruction and requirements needed to take the Ohio CDL Class A driver's license examination. Instruction will include behind the wheel range and street practice. A CDL test vehicle (tractor and trailer) will be provided for the CDL skills test. Students must be at least 18 years of age and able to provide a valid Ohio State Driver's License with minimum two years experience, proof of U. S. Citizenship (birth certificate and Social Security card), meet minimum Department of Transportation (DOT) medical and vision standards and pass a DOT drug screen. Individuals seeking the (H) endorsement are required to undergo a security threat assessment and obtain clearance from the Transportation Security Administration (TSA).

Pre-regs:

#### **ENV121 REGULATIONS AND COMPLIANCE**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will review the history of the American environmental movement and will then look at the fundamental concepts of the environmental law and regulation system. Major environmental laws such as the Clean Water Act, Clean Air Act, SARA, NEPA, SUPERFUND, OSHA and RCRA will be reviewed. The primary focus of the class will be to meet the compliance and liability aspects of the various regulations.

Pre-regs:

### ENV123 OSHA 10-HR GEN IND SAFETY

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This safety orientation course meets the requirements of the Occupational Safety and Health Administration(OSHA) 10-hour training requirement. Students are made aware (general overview) of the most common hazards encountered on the job sites and taught methods (related safety guidelines) to avoid them. Students are introduced to the OSHA standards and requirements as they pertain to general industry. Students that attend the required time and pass a final examination receive a certificate of completion.



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## **Engineering Tech**

**Engineering/Applied** 

#### ENV124 TRANSP HAZARD MTL TRNG

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed to familiarize the student with Department of Transportation Pipeline and Hazardous Safety Administration (DOT PHMSA) Hazardous Materials Regulations (HMR). The student learns how to properly complete shipping papers, label & mark hazardous material packages and how to placard highway and rail vehicles plus air and vessel containers. The student completes exercises using the Hazardous Materials Table (HMT) and the Emergency Response Guidebook (ERG). Hazardous materials transportation regulations are accessed online. Students successfully passing a written test in accordance with DOT PHMSA regulations will receive a DOT PHMSA Hazardous Materials Initial Training Certificate.

Pre-regs:

#### ENV125 INTR HAZRDS MTRLS AND WSTE MGT

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed to introduce the student to the hazards of all chemicals produced or imported as well as laws and regulations governing the management of solid and hazardous wastes. It is intended to satisfy training requirements of the OSHA Hazard Communication Standard (29 CFR Part 1910.1200(h)) and applicable EPA solid and hazardous waste regulations (40 CFR Part 260 through Part 265). Students that successfully complete this course receive a certificate of completion.

Pre-regs:

### **ENV126 HAZWOPER-MODERATE RISK**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An internet-based course that provides 24 hours of interactive training online for those needing Moderate Risk certification (29 CFR Part 1910.120). The course consists of an online text, interactive exercises, web links, self-grading quizzes and final exam. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

### ENV127 WATER CERTIFICATION EXAM PREP2

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

In this course students will review materials that may appear on the Operator Certification Examination administered by the Ohio EPA for Class I, II and III Water Operators. Students will meet with an instructor twice a week for two hours each meeting over an eight week period to review material that might appear on the certification examination prior to administration of the certification examinations.

Pre-regs:

#### **ENV128 WASTEWATER CERTIFICTN EXAM PRE**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

In this course students will review materials that may appear on the Operator Certification Examination administered by the Ohio EPA for Class I, II and III Wastewater Operators. Students will meet with an instructor twice a week for 2 hours each meeting over an eight week period to review material that might appear on the certification examination prior to administration of the certification examinations.

Pre-regs:

### ENV129 WATER/WASTEWATER-PERMITS&ADMIN

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Students will become more familiar with safety issues and responsibilities associated with the permitting and certification process as it relates to water and wastewater treatment plant operations. They will also have the opportunity to improve their people skills and operations management techniques as they relate to water and wastewater treatment plant operations. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

### ENV130 WATER/WASTEWATER-PUMPS, MAINT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Using the internet, students will cover a very broad range of topics including centrifugal pumps, selection and replacement of packing, seals, hydraulics, operating conditions, preventive maintenance, motors, plans and specifications, hazard types, plant equipment and procedures, lab safety and fire prevention and hazard communications. This is a 100% web-based course.

Pre-regs:

#### ENV131 WASTEWATER TREATMENT I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of wastewater treatment. This introductory course includes instruction in water pollution control, preliminary and primary treatment, fixed film processes and suspended growth systems. Along with reading assignments from the text, the course is enhanced with up-to-date photographs, audio, interactive exercises and online links. This is a 100% web-based course.

**Pre-reqs:** 

## **ENV132 WASTEWATER TREATMENT II**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Using the internet, students will focus on issues of concern to wastewater treatment facilities. The topics of this course include activated sludge process control, sludge digestion and solids handling, nitrogen and phosphorus removal and odor control. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises and online tasks. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

### ENV133 WASTEWATER TREATMENT-INDUSTRL

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Using the internet, students will focus on issues of concern to industrial wastewater treatment facilities. The topics of this course include regulatory requirements; flow measurement; preliminary, physical and chemical treatment; filtration; and treatment of metal streams. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises, and onlinks. This is a 100% web-based course.

Pre-regs:

#### **ENV134 WASTEWATER COLLECTION SYSTEMS**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Using the internet, students will gain a working knowledge of wastewater collection systems safety procedures, sewer inspection and testing, pipeline cleaning and maintenance, underground repair, lift stations, equipment maintenance, and sewer rehabilitation. Along with reading assignments from the text, the course is enhanced with up-to- date photographs, audio, interactive exercises, and links. This is a 100% web-based course.

**Pre-reqs:** 

### **ENV135 WASTEWATER ANALYSIS**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Using the internet, students will be introduced to basic laboratory safety and gravimetric, spectrophotometric, electrochemical, titrimetric, and microbiological methods. The units include instruction on the laboratory procedures for microscopic, coliform, BOD5, COD, ammonia, grease and oil, chlorine and solids analysis. Along with reading assignments from the text, the course is enhanced with up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

#### ENV136 WATER TREATMENT I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of water treatment. The topics of this course include regulatory monitoring, iron and manganese removal, filtration, coagulation, flocculation, and disinfection. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and onlink. This is a 100% web-based course.

Pre-regs:

#### **ENV137 WATER TREATMENT II**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Using the internet, students will focus on issues of concern to surface water treatment facilities. The topics of this course include reservoir management, taste and odor control, corrosion management, softening, demineralization, and trihalomethanes. Instrumentation and sludge handling and disposal issues are also addressed. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:** 

### **ENV138 WATER DISTRIBUTION SYSTEMS**

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The topics of this course include water storage facilities, operation and maintenance of water mains, water quality issues, disinfection, and safety. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

#### **ENV139 WATER ANALYSIS**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Using the internet, students will be introduced to basic laboratory safety and gravimetric, spectrophotometric, electrochemical, titrimetric and microbiological methods. The units include instruction on the procedures for regulatory sampling and safety, and specific analytical procedures for total residue, fluoride, pH, ammonia, acidity, alkalinity, calcium, chloride, hardness, and coliform analysis. This is a 100% web-based course.

Pre-regs:

## ENV140 BASIC WATER TRTMT-COAG/FLOC

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of water treatment. The topics of this course include general issues operators face when dealing with coagulation and flocculation. Along with reading assignments from the text, the course is enhanced with audit, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:** 

### ENV141 BASIC WATER TRMT-DISINFECTN

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of water treatment. The topics of this course include general issues operators face when dealing with a variety of disinfection processes. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

#### ENV142 BASIC WATER TRMT-FILTRATION

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of water treatment. The topics of this course include general issues operators face when dealing with the filtration processes. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

Pre-regs:

### **ENV143 BASIC WATER TRMT-FLUORIDATION**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the Internet, students will explore the rudiments of water treatment. The topics of this course include general issues operators face when dealing with the fluoridation processes. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:** 

### ENV144 BASIC WATER TRMT-IRON & MANG

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of water treatment. The topics of this course include general issues operators face when dealing with iron and manganese levels. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

	ENV145	BASIC WATER	TREATMENT-C	DUALITY
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Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of water treatment. The topics of this course include general issues operators face when insuring the quality of the water. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

Pre-regs:

### **ENV146 BASIC WATER TRTMNT-SEDIMTATION**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of water treatment. The topics of this course include general issues operators face when dealing with sedimentation basins. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:** 

### ENV147 BASC WATR TREATMNT-WATER SOURC

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of water treatment. The topics of this course include an overview of water treatment and reservoirs management. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

### ENV148 WATER DISTRTN SYS-DISTRIB FAC

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topics of this course involve the issues of water distribution systems and facilities. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% webbased course.

Pre-regs:

### **ENV149 WATR DISTBTN SYS-STORAGE SYS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of water storage facilities. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:** 

### **ENV150 WATR DISTRBN SYS-SYS DISINFCTN**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of water disinfection systems. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

#### ENV151 WTR DISTBN SYS-SYSTEM O M

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of the needs for proper operations and maintenance of water distribution systems. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

Pre-regs:

#### ENV152 WTR DISTRIBUTION SYS-SYS SAFEY

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of safety issues confronting water distribution systems. Along with reading assignments from the test, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links.

**Pre-reqs:** 

### ENV153 WTR DISTRBN SYS-VALVES, MAIN ME

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topics of this course are that of proper maintenance operations of the values, and meters found in water distribution systems. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

### ENV154 WATER DISTRIBTN SYS-WATR MAINS

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of water mains for distribution systems. Along with reading assignments from the text, the course in enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

Pre-regs:

### **ENV155 WATER DISTRIBTN SYS-WATR QUALT**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of water quality for distribution systems. Along with reading assignments from the text, the course is enhanced with audio, up-to- date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:** 

### ENV156 WASTEWATER TRTMT-DISINF CHLORN

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of wasterwater treatment. The topics of this course include general issues operators face when disinfecting wastewater. Along with reading assignments from the text, the course is enhanced with audio, up-to- date photographs, interactive exercises, and online links. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

### ENV157 WASTEWATER TRTMT-FIXED FILM PR

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of wasterwater treatment. The topics of this course include general issues regarding the trickling filter process when treating wastewater. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

Pre-regs:

#### ENV158 WASTEWATER TRTMT-PLLUTN CONTRL

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of wastewater treatment. The topics of this course include general issues regarding what is meant by the term water pollution, the steps needed to treat it and the math used. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

Pre-regs:

### **ENV159 WASTEWATER TRTMNT-POND SYSTMS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of wastewater treatment. The topics of this course include general issues regarding use of wastewater ponds as a treatment method. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.



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## **Engineering Tech**

**Engineering/Applied** 

### ENV160 WASTEWATER TRTMT-PRELIMY TRTMT

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of wastewater treatment. The topics of this course include general issues regarding the steps in preliminary treatment of wastewater. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

Pre-regs:

#### ENV161 WASTEWATER TRTMT-PRIMARY TRTMT

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of wastewater treatment. The topics of this course include general issues regarding the steps in primary treatment of wastewater. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:** 

## **ENV162 WASTEWATER TRTMT-SUSP GRTH SYS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Using the internet, students will explore the rudiments of wastewater treatment. The topics of this course include general issues regarding suspended growth systems. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.



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## **Engineering Tech**

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### ENV163 WATER/WASTEWATER MATH CHEM

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

In this course, students will be introduced to math and chemistry concepts used in water and/or wastewaterplant operations. This is for a credit course that can be taken by water and/or wastewater plant operators planning to take a certification exam or seeking post- certification contact hours. This is a half-semester course with 2-2 hour classes each week for 8 weeks.

Pre-regs:

#### **ENV164 SUSTAINABLE GR BLD TECH**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This is an introductory course providing information on how Green Building Technologies improve the environment through proper site development considerations-including brownfield site remediations strategies, storm water run-off management, renewable energy sources, and managing water efficiency in buildings. Improving energy efficiencies through passive solar heating and cooling methods are emphasized. Selecting building materials made from rapidly renewable resources or made with recycled content are discussed. Economic and social benefits of Green Building Technologies are also emphasized. Students are exposed to the "Leadership in Energy and Environmental Design: (LEED) Green Building Rating System established by the U.S. Green Building Council.

Pre-regs:

### **ENV165 OSHA 10 HR CONSTRUCTION SAFETY**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 0 Lab Hours: 1 Other Hours: 0

This safety course meets the requirements of the Occupational Safety and Health Administration (OSHA) 10-Hour training requirement for the construction industry. Students are made aware (general overview) of the most common hazards encountered on construction sites and are taught methods (related safety guidelines) to avoid them. Students are introduced to OSHA standards and requirements as they pertain to the construction industry in accordance with 29 CFR 1926. Students that attend the required time and pass a final examination receive an OSHA 10-Hour Construction Safety Card issued by an OSHA authorized instructor. TAG approved course ORE004, effective Summer 2013. CTAG approved course CTS001, effective Summer 2013.



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### **Engineering Tech**

**Engineering/Applied** 

#### ENV166 LEAD SAFE RENOVATOR

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 0 Lab Hours: 1 Other Hours: 0

Common renovation activities such as sanding, cutting, and demolition may create hazardous lead dust and chips by disturbing lead-based paint, which can be harmful to adults and children. To protect against this risk the EPA issued the Renovation, Repair and Painting Rule. It requires contractors performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes, child care facilities and schools be certified by the United States Environmental Protection Agency and use certified renovators who are trained by EPA-approved training providers. This course will provide students with techniques to ensure lead-safe work practices are followed. Training will include information necessary to contain a work area, minimize dust and how to properly clean up a renovation area to prevent the spread of harmful lead dust. The student will be issued a certificate as a Lead Safe Renovator in accordance with federal and state regulations upon successful completion of the course and a comprehensive final exam.

#### **ENV169 RADIATION SAFETY**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course provides the student with both classroom and applied training. Students are introduced to basic atomic structure and the process of ionization. Classroom topics include: the four basic types of radiation, units of measurement (roentgen, rad, rem, curie and SI units), the sources of radiation, biological effects, dosimetry, ALARA, contamination control, radiological emergencies, radiological postings plus administrative and engineering controls. Applied training consists of hands on training. Students learn and demonstrate how to: don and doff radiological personal protective equipment, use survey instruments and dosimetry to measure radiation. Students also learn proper radiological decontamination procedures for both contaminated personnel and equipment. The course is based on the requirements of the Code of Federal Regulations 10 CFR 835 for Department of Energy radiological workers. A certificate of completion as a Radiation Worker List is provided to the student after the successful completion of the course with a score of 80% or above on a comprehensive final examination.

### ENV221 OSHA - 40 HR - HAZWOPER

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

(40 hour OSHA training) This course satisfies the requirements of OSHA Standard 1910.120. It is a health and safety training course required for all personnel who may work at a hazardous waste site. Topics to be covered include: hazardous materials chemistry, toxicology, air purifying respirators, self-contained breathing apparatus, protective clothing, site decontamination and response incidents. Safety certificate is awarded upon completion of this course.



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## **Engineering Tech**

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### ENV222 INDUST PROCES & POLUTION CNTRL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces the students to environmental control systems and practical applications of their operation and maintenance. Particular attention given to piping and instrumentation diagrams, the reading of strip charts, continuous emission monitors, stack and source sampling and volumetric measurement of fluids. General troubleshooting techniques are also covered.

### Pre-reqs:

**CHM121** 

Or CHM121B

Or CHM141

Or CHM141B

And MTH107

### ENV223 BASIC GEOLOGY/HYDROLOGY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the basic components of the earth, and will include a study of its interior, minerals, rock structure, weathering and mass movement. Basic soil properties, testing, and topographic maps will be studied. The properties and flow patterns of water in both surface and subsurface conditions will be considered with emphasis placed on how hazardous materials are spread from a contaminated site.

## Pre-reqs:

MTH107

### ENV224 AIR SAMPLING-ANA & CONTR

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will review the standard methods of air sampling for gases and particulate matter. Students will learn proper monitoring equipment selection, operation and maintenance. Laboratory experience will emphasize sampling techniques, data collection and proper reporting methods. A broad overview of all aspects of air pollution will be included.

### Pre-regs:

CHM121

Or CHM121B

Or CHM141

Or CHM141B

And ENV121



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## **Engineering Tech**

**Engineering/Applied** 

### ENV225 SOLID AND HAZ WASTE SMPLG

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the methods and procedures of managing solid and hazardous wastes according to applicable federal regulations such as the Resource Conservation and Recovery Act. Included will be the study of physical facilities and operational standards of sites that treat, store and dispose of solid and hazardous wastes. Case studies will be used to determine the methodologies of waste stream audits, pollution prevention, permitting and land ban determination.

### Pre-reqs:

CHM121

Or CHM121B

Or CHM141

Or CHM141B

And ENV121

### ENV226 WATER SAMPLING, ANAL, CONT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover water sampling techniques and chemical analysis of water quality. Included will be methods of measurement, techniques for sampling and required field instrumentation. Laboratory analysis, date interpretation and proper reporting methods will be developed.

## Pre-reqs:

**CHM121** 

Or CHM121B

Or CHM141

Or CHM141B

And ENV121

And ENV223

#### **ENV228 HEALTH AND SAFETY**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course helps students develop an understanding of site occupational health and safety programs including: good industrial and construction workplace practices, ergonomics, chemical toxicology, respiratory protection, personal protective equipment, record keeping, industrial hygiene sampling, ventilation measurements, machine guarding methods and accident prevention.



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## **Engineering Tech**

**Engineering/Applied** 

### ENV228 HEALTH AND SAFETY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course helps students develop an understanding of site occupational health and safety programs including: good industrial and construction workplace practices, ergonomics, chemical toxicology, respiratory protection, personal protective equipment, record keeping, industrial hygiene sampling, ventilation measurements, machine guarding methods and accident prevention.

### Pre-regs:

**ENV121** 

#### ENV230 OSHA 8-HR HAZWOPER REFRESHER

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is required by OSHA regulation as an annual refresher for the materials covered in the OSHA 40-hour HAZWOPER class. Material to be reviewed include: hazardous material chemistry, toxicology, respiratory protection, protective clothing, site decontamination and response to incidents. A certificate is awarded upon completion of this course.

Pre-regs:

### **ENV231 OSHA 30 HOUR GENERAL INDUSTRY**

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course is designed to develop an understanding of site occupational health and safety programs. This 30-hour comprehensive course is ideal for anyone with safety and health responsibilities and for employee safety and health awareness. This course covers all the topics in the OSHA 10-hour General Industry course plus additional OSHA approved topics. Participants who attend the required time and pass a final examination receives a certificate of completion.



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## **Engineering Tech**

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### **ENV232 ASBESTOS ABATEMENT WKR INTIAL**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course provides 16 hours of asbestos abatement worker refresher training in which students will review the various types of asbestos and will be provided updates on federal and state regulations pertaining to the removal of asbestos. Students will review proper asbestos removal procedures from ceilings, walls and pipes and how to set up a containment area that will protect the public from asbestos exposures during abatement activities. Students will review self-protection methods from asbestos hazards by the use of respirators, personal protective clothing and HEPA asbestos filtration units. Upon initial and continued approval by the Ohio Department of Health this course will provide the training requirements established by the Ohio Department of Health and the United States EPA to continue to be a licensed asbestos abatement worker in the state of Ohio. Upon successful completion of the course which includes a comprehensive examination, a certificate of the course which includes a comprehensive examination, a certificate of the course which includes a comprehensive examination.

#### ENV234 ASBESTOS ABATEMENT WKR REFRSH

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 0 Lab Hours: 1 Other Hours: 0

This course provides 16 hours of asbestos abatement worker refresher training in which students will review the various types of asbestos and will be provided updates on federal and state regulations pertaining to the removal of asbestos. Students will review proper asbestos removal procedures from ceilings, walls and pipes and how to set up a containment area that will protect the public from asbestos exposures during abatement activities. Students will review self-protection methods from asbestos hazards by the use of respirators, personal protective clothing and HEPA asbestos filtration units. Upon initial and continued approval by the Ohio Department of Health this course will provide the training requirements established by the Ohio Department of Health and the United States EPA to continue to be a licensed asbestos abatement worker in the state of Ohio. Upon successful completion of the course which includes a comprehensive examination, a certificate of the provided to the student.

ENV232

## ENV236 ENV HLTH AND SAFTY SPEC PRJECT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to allow the student to exercise the capabilities developed in other courses within the environmental areas. Special current topics important to the environmental or safety field are also incorporated into this class. Students will choose approved projects compatible with their interest and background. An environmental problem will be studied and all regulations that affect the problem are researched, and a plan of action for compliance, abatement and/or remediation will be developed.

#### **Pre-reqs:**

**ECA122** 

And ENV121

And ENV221

Or ITD122



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## **Engineering Tech**

## **Engineering/Applied**

### EST129 SWITCHGEAR, TRANS, CONTROLS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

The course covers low and high voltage circuit breakers and switchgear primarily from 4KV to 15KV. It shows how switchgear is basically constructed, how circuit breakers work, and general maintenance of such equipment. The basic theory of transformers and connection schemes of common types of transformers including dry and wet type distribution transformers, power transformers, and instrument transformers is explained. Control ladder and wiring diagrams with an introduction to input and output control devices, are presented and implemented in lab.

### Pre-reqs:

**EET122** 

Or EST130

Or EST230

### EST132 FUNDAMENTAL OF ELECTRICITY

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 4 Lab Hours: 1 Other Hours: 0

This course consists of analytical and laboratory techniques with heavy emphasis on resistive and reactive DC & AC electrical circuits, as well as the principles of electronic devices, including diodes and transistors.

### Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M094 Transfer Prof/Placement - 2

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

MTH101



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## **Engineering Tech**

## **Engineering/Applied**

#### EST221 ELECTRONIC TBLSHOOTING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 3 Lab Hours: 1 Other Hours: 0

Course covers:principles of troubleshooting with electronic/electrical testing instruments, troubleshooting electric motors and generators, industrial controls, residential and industrial wiring, power supply repair, signal tracing, "in-circuit" semiconductor testing and pulse circuit troubleshooting.

### Pre-reqs:

**EET123** 

#### **EST222** Industrial Networks

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will provide a basic understanding of different types of networks that are used in an industrial facility. Course will cover network terminology, hardware, software, and basic troubleshooting.

#### **Pre-reqs:**

**EET120** 

Or EST130

Or EST230

### **EST230** Electrical Circuits & Devices

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course is to provide a general understanding of electricity and the operation of electrical devices; to be able to make electrical measurements and basic calculations involving voltage, current, resistance, reactance, capacitance, and power; and to learn how to supply power to commercial equipment.

## Pre-reqs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: M094 Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250



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## **Engineering Tech**

## **Engineering/Applied**

### EST230 Electrical Circuits & Devices

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course is to provide a general understanding of electricity and the operation of electrical devices; to be able to make electrical measurements and basic calculations involving voltage, current, resistance, reactance, capacitance, and power; and to learn how to supply power to commercial equipment.

### Pre-reqs:

Or Test & Score: SAT Mathematics - 510

Or MTH025

Or MTH094

Or MTH107

MTH123

### EST235 Power Gener & Grid Tech

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course encompasses power generation from creation from multiple sources (coal, nuclear, turbine, fuel cell, etc.) and various distribution technologies until it enters the home or business. Students will learn the technology of local and national transmission and distribution systems as well as bulk generation, distributed generation, microgrid and smartgrid technologies. Energy efficiency, storage, cogeneration and energy security will be studied and analyzed during this course.

## Pre-reqs:

**EST230** 

### ETD225 SPECIAL TOPICS

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Special topics in Engineering, Industrial, and Emerging Technologies Division.



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## **Engineering Tech**

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Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0 Special topics in Engineering, Industrial, and Emerging Technologies Division.

Pre-reqs:

### ETD227 SPECIAL TOPICS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0 Special topics in Engineering, Industrial, and Emerging Technologies Division.

Pre-reqs:

### ETD228 SPECIAL TOPICS

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0 Special topics in Engineering, Industrial, and Emerging Technologies Division.



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## **Engineering Tech**

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### ETD229 SPECIAL TOPICS

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0

Special topics in Engineering, Industrial, and Emerging Technologies Division.

Pre-regs:

### **EUT121 OVERHEAD LINE TECHNOLOGY I**

Credit Hours: 5 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 18 Other Hours: 0

Supervised practical applications of electrical overhead line worker job duties in a directed practice setting under direct supervision of FirstEnergy personnel. Emphasis on skills to safely climb wood poles, the operation of a line truck, setting poles, framing poles on the ground, and operation of a digger derrick. Student will receive instruction to pass the Class "A" Commercial Driver's License skills test. Rigging, wire identification, and use of rubber goods will also be learned. Safety topics include: Rigging Safety Awareness; Fall Protection; Flame Retardant Personal Protective Equipment; Medic First Aid; Blood-Borne Pathogens; and good housekeeping.

Pre-regs:

## **EUT122 OVERHEAD LINE TECHNOLOGY II**

Credit Hours: 5 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 18 Other Hours: 0

Supervised practical applications of electrical overhead line worker job duties in a directed practice setting under direct supervision of FirstEnergy personnel. Emphasis on skills required to perform work on secondary voltage circuits. Emphasis on the installation of services, street lighting, and secondary circuits, bucket truck familiarization and bucket rescue. Overview of distribution electrical systems, and Occupational Safety and Health Administration (OSHA) rules are also included. Safety topics include: Work Zone Traffic Control; Minimum Approach Distances; Rubber Protective Equipment; and knowledge of UD Excavation/Trenching/Shoring.

Pre-regs:

**EUT121** 



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## **Engineering Tech**

**Engineering/Applied** 

### EUT123 SUBSTATION TECHNOLOGY I

Credit Hours: 5 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 18 Other Hours: 0

Supervised practical applications of substation worker job duties in a directed practice setting under direct supervision of FirstEnergy personnel. This course provides the student with the basic knowledge and skills necessary to assist with the performance of maintenance and testing in substations and switchyards.

Pre-regs:

#### **EUT124 SUBSTATION TECHNOLOGY II**

Credit Hours: 5 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 18 Other Hours: 0

Supervised practical applications of substation worker job duties in a directed practice setting under direct supervision of FirstEnergy personnel. This course provides the student with a broader skill set as well as the enhanced knowledge and skill level necessary to safely assist in the performance of routine repairs on distribution and power transformers, bushings, circuit breakers, disconnect switches, control equipment and other de-energized electrical equipment used in the distribution of electrical energy.

#### Pre-regs:

**EUT123** 

### **EUT221 OVERHEAD LINE TECHNOLOGY III**

Credit Hours: 5 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 18 Other Hours: 0

Supervised practical applications of electrical overhead line worker job duties in a directed practice setting under direct supervision of FirstEnergy personnel. Emphasis on skills required to identify, install, and maintain primary underground residential distribution (URD) equipment, including various methods of troubleshooting URD primary and secondary circuits. Grounding distribution circuits will also be learned. Students will develop the knowledge and skill to safely perform rubber gloving assignments utilizing the insulate and isolate techniques and will perform various tasks while working on an energized three-phase circuit under controlled conditions. Safety topics include: fire extinguisher safety, temporary protective grounds, stored energy devices, and utilities protective service.

### Pre-regs:

**EUT122** 



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## **Engineering Tech**

**Engineering/Applied** 

### EUT222 OVERHEAD LINE TECHNOLOGY IV

Credit Hours: 5 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 18 Other Hours: 0

Supervised practical applications of electrical overhead line worker job duties in a directed practice setting under direct supervision of FirstEnergy personnel. Emphasis on line equipment, hot line tools, power industrial trucks, and transmission (including wood pole, steel pole, ladder, and tower climbing). Bucket, pole top, and self-rescue will also be reviewed. Safety topics include: spill response, live Line tools, hazardous communications, and Accident Prevention Handbook review.

### Pre-regs:

**EUT221** 

#### EUT224 SUBSTATION TECHNOLOGY III

Credit Hours: 5 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 18 Other Hours: 0

Supervised practical applications of electrical substation worker job duties in a directed practice setting under direct supervision of FirstEnergy personnel. This course provides the student with the advanced knowledge and skills necessary to safely work in a supervised capacity on energized equipment and in an unsupervised capacity on de-energized equipment employed in the production and distribution of electrical energy. This course also introduces the student to power transformer testing, troubleshooting, alarm systems, circuit breaker troubleshooting, reclosers and sectionalizers, oil circuit breaker maintenance and voltage regulators.

#### Pre-regs:

EUT124

### **EUT225 SUBSTATION TECHNOLOGY IV**

Credit Hours: 5 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 18 Other Hours: 0

Supervised practical applications of electrical substation worker job duties in a directed practice setting under direct supervision of FirstEnergy personnel. This course provides the student with the knowledge and skills to work safely and competently in a supervised or unsupervised capacity. This course is the culmination of prior courses with the introduction of advanced knowledge and skills related to motor operated air brake switch, electronic recloser controls, SF6 gas breakers, air circuit breaker maintenance, oil circuit breaker timing and travel tests, calibration of various substation equipment, potential transformer testing, phasing, switching procedures and the performance of energized primary work. The work activities in this final semester will be performed in a crew setting and will require continuous team work with fellow students.

### Pre-regs:

EUT224



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## **Engineering Tech**

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### HVC121 HVAC PRINCIPLES I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Overview of heating, ventilating, and air conditioning, including basic design, equipment characteristics, venting, the refrigeration cycle, system control, basic heat transfer, basic airflow principles, air quality, product quality and comfort principles.

Pre-regs:

### HVC122 HVAC PRINCIPLES II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

An in depth study of the main principles of HVAC. Beginning with safety, topics covered include piping, refrigeration piping, the refrigerant cycle, and refrigerant handling. Also studied are duct sizing and layout, air test and balance, including blower drives and system components. Heating and cooling loads will be discussed. Special attention will be given to electrical wiring and controls and troubleshooting.

**Pre-reqs:** 

HVC121

Can be Taken Concurrently

## HVC124 MOBILE CAB CLIMATE CNTL SYS/AP

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will provide the student with a comprehensive understanding of the safe installation, start-up, service, and field repair of the MacBone Industries Ltd. Mobile Heating/AC Unit. The refrigeration cycle and leak detection/repair will be covered: including brazing, evacuation, and charging. At course conclusion of this course the mobile (Automotive) EPA refrigerant handling testing & certification will be conducted.



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## **Engineering Tech**

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### **HVC125** Sheet Metal Layout & Fabric

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course covers the layout of basic sheet metal duct fittings using geometrical methods and the fabrication of fittings using industry accepted joining methods. Topics include layout and fabrication of rectangular, round, and transition fittings in straight, curved, and offset configurations, as well as design impacts on airflow efficiency in various types of fittings.

Pre-regs:

## **HVC221 HVAC FURNACE COMBUSTION PRINC**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

The National Fuel Gas Code (NFPA54) will be used as the basis for this course of study. Subjects covered will include appliance venting and vent sizing, combustion air requirements and sizing, mechanical room configuration and equipment location. Published manufacturer installation procedures will be a significant part of this course.

**Pre-reqs:** 

### HVC222 HVAC DESIGN & APPLICATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The student's understanding of heat transfer will be expanded to encompass application. The principles of thermodynamics, psychometrics, and calculating heating and cooling loads are emphasized. Heating, venting and combustion air will be included. Reading plans and specification, systems design, and equipment selection are studied.

Pre-regs:

HVC122



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## **Engineering Tech**

**Engineering/Applied** 

### HVC223 HVAC SYS OPER AND TRBLSHT- HT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Heating equipment and system operation and studied together with development of problem solving techniques. Through the use of laboratory demonstrations, measurements, observations and experiments with HVAC systems and components the student learns proper system diagnosis and repair procedures.

### Pre-reqs:

HVC122

### HVC224 HVAC SYS OP AND TRBLST- COOLNG

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Cooling equipment and systems operation are studied together with development of problem solving techniques. Through the use of laboratory demonstrations, measurements, observations and experiments with HVAC systems and components, the student learns proper system diagnosis and repair procedures.

### Pre-regs:

HVC122

### HVC227 HVAC FIELD INSTALL TECH PROC

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Laboratory intensive introduction to air conditioning system field installation techniques and procedures.

Pre-reqs:

HVC122

Can be Taken Concurrently



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## **Engineering Tech**

**Engineering/Applied** 

#### HVC228 HVAC SYS AIRFLOW DUCT SIZING

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

A detailed examination of air and its properties and HVAC system airflow principles along with duct sizing are presented. As a final project, a properly sized duct system is designed given equipment performance data.

## Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M094 Transfer Prof/Placement - 2

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

MTH101

#### HVC229 AIR CONDITNING REFRIG CYCLE

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The refrigeration cycle is presented together with the operation of compressors and metering devices. Equipment studied includes residential air conditioning and heat pumps, their principles of operation, their components and auxiliary devices, and performance ratings.

#### Pre-regs:

#### HVC230 HVAC RESIDENTIAL EQUIP SIZING

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course provides the HVAC student with a powerful, efficient, and highly accurate method of load estimating and duct selection. The software covered in this course simplifies a very complex and time-consuming task of manually calculating the estimated load with the Right J software package. Outside classwork may be assigned.



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## **Engineering Tech**

**Engineering/Applied** 

## HVC230 HVAC RESIDENTIAL EQUIP SIZING

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course provides the HVAC student with a powerful, efficient, and highly accurate method of load estimating and duct selection. The software covered in this course simplifies a very complex and time-consuming task of manually calculating the estimated load with the Right J software package. Outside classwork may be assigned.

Pre-regs:

## **HVC231 HVAC MOTORS AND COMPRESSORS**

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Motors and compressor types, designs, applications, and failure modes are studied. Heavy emphasis is placed on failure symptoms, causes and resolution. Actual failed motors and compressors are examined and probable causes and remedies determined.

**Pre-reqs:** 

## HVC232 Hydronic Apps and Design

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Hydronic system application and design including steam and hot water systems using fan coils, radiator, baseboard, and radiant panel terminations are presented. Residential, commercial, and industrial applications are covered.

Pre-regs:

HVC122



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## **Engineering Tech**

**Engineering/Applied** 

#### HVC233 HVAC BID SPECIFICATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course of study will make use of actual historic construction industry plans and specifications. The student will be taken through the entire estimation process including work and technical specification reading and comprehension, acquisition of bids and calculation of pricing, preparation of the bid, formatting the bid according to specifications and accepted standards and delivery of a comprehensive bid quotation. Labor rates, available workforce, travel time, completion dates, subcontracts, bonds, accepted alternates, project value and how these items affect the delivered quotation will be introduced during the class exercises.

#### Pre-regs:

HVC222

#### HVC234 HVAC ELECTRICAL SYS & APPLIC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides the knowledge and skills to understand and safely install, service, and troubleshoot HVAC/R electrical circuits and electronics. Basic electrical foundation fundamentals are provided. HVAC/R electricity and electronic circuits are covered in depth. A focus on proper meter usage is engrained in the process. Motors, controls, and other electrical/electronic devices are covered also. The sequence of operation and diagnostic trouble-shooting, utilizing pictorial, schematic, and hands on approaches are provided.

#### Pre-regs:

### **HVC235 REFRIGERATION**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

A basic understanding of mechanical refrigeration from safety to cryogenics is presented. The refrigeration cycle, components, controls, in instrumentation, installation, servicing, and troubleshooting are studied. Various components including the compressor, condenser, filter-dryer, and refrigeration controls are studied in detail

## Pre-reqs:

HVC122



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## **Engineering Tech**

**Engineering/Applied** 

#### HVC236 ADV HVAC ELECTRICAL APPLIC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course encompasses complex HVAC control circuitry schemes, including microprocessor controlled as used on large chillers, large tonnage DX, and DDC controls. The student outcome is full understanding of control functions, sequence of operation, and troubleshooting skills applicable to complex HVAC circuitry. This ensures that the student has the ability to systematically and logically troubleshoot these complex systems with efficiency and accuracy.

#### Pre-regs:

HVC234

#### HVC237 HVAC COMMERCIAL CONTROLS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will further the students knowledge of control by introducing the student to the equipment and devices that control HVAC commercial equipment, pnuematics, and Direct Digital Controls. The lectures/labs will discuss the function, operation, service, and how to troubleshoot the controls.

#### **Pre-reqs:**

HVC122

### **HVC238 CHILLER OPERATIONS**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will discuss the specifics of the operation of chillers. The lectures will include small 25 ton unites to large commercial 500 ton chillers. Including installation of the units, service and general maintenance, and troubleshooting and repair. The course will cover how to locate the problems and how to safely manage repairs working with large pieces of equipment.

# Pre-reqs:

HVC122



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## **Engineering Tech**

**Engineering/Applied** 

#### IET121 INDUSTRIAL MANAGEMENT CONCEPTS

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This is an introductory course which examines the essential elements of contemporary management in the industrial organization. Topics include, but are not limited to: the changing role of supervisors/managers; the decision-making process; supervisor/manager-employee relationships; team management and problem solving; planning and communication.

#### Pre-regs:

#### IET223 COMPUTER NUMERICAL CTRL

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course will cover basic features of machining and turning center operations including programming, editing, proper installation and removal of cutting tools, safety and actual running of equipment both manually and in programmed modes. The student will be introduced to soft skills necessary to function in a team environment with a general focus on team building, team problem solving and team decision making.

#### **Pre-reqs:**

## IET270 DIM METROLOGY AND INSPECT I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an in-depth study of measuring principles, instruments, and techniques. The measuring instruments most commonly used in industry, including coordinate measuring machines, are covered. Emphasis is placed on proper use of equipment in terms of prevention and minimization.

## Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M094 Transfer Prof/Placement - 2

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510



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## **Engineering Tech**

**Engineering/Applied** 

#### IET270 DIM METROLOGY AND INSPECT I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an in-depth study of measuring principles, instruments, and techniques. The measuring instruments most commonly used in industry, including coordinate measuring machines, are covered. Emphasis is placed on proper use of equipment in terms of prevention and minimization.

#### **Pre-reqs:**

Or MTH025

MTH094

Or MTH107

#### MST121 BLUEPRINT READING

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course provides the opportunity for students to develop the skills of reading and interpreting blueprints. Orthographic projection and concepts of visualization are discussed before the various types of blueprints are introduced. "The reading of," rather than the drawing of blueprints is emphasized throughout the course. Types of prints covered include but not limited to industrial, structural, civil, sheet metal, building, piping, hydraulic, welding, and electrical.

#### Pre-regs:

#### MST122 HYDRAULC AND PNEUMATIC PRI

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The study of fluids, their properties, behavior and applications. Topics cover compressible and incompressible fluids, viscosity and basic hydraulic and pneumatic pumps, actuators, valves and piping used.

#### Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250



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## **Engineering Tech**

## **Engineering/Applied**

#### MST122 HYDRAULC AND PNEUMATIC PRI

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The study of fluids, their properties, behavior and applications. Topics cover compressible and incompressible fluids, viscosity and basic hydraulic and pneumatic pumps, actuators, valves and piping used.

### Pre-reqs:

Or Test & Score: SAT Mathematics - 510

And MST123

Can be Taken Concurrently

MTH101

#### MST123 HYDRAULC AND PNEUMATIC APP

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The course deals with the study of hydraulic applications, types of circuits used, how to pipe the various systems and how to troubleshoot the hydraulic/pneumatic circuits.

## Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

And MST122 Can be Taken Concurrently

MTH101



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## **Engineering Tech**

**Engineering/Applied** 

MST124	FURNACE	COMBUSTION	PRINC
WI3 I I Z4	PURNAUE.	COMIDUSTION	FRING.

Credit Hours: 1 Contact Hours: 1.1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Fuels, the chemistry of combustion, ratio for perfect combustion, mixing of air and fuel, products of combustion, efficiency, heat transfer, heat loss, pressure terminology, burner components, control valves and safety are all topics that are covered.

Pre-regs:

## MST125 BASIC PUMPS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the centrifugal, propeller, turbine, rotary, reciprocating, metering and special purpose pumps. Pump applications, selection and routine maintenance are also reviewed, along with various types of packings and seals that are used.

**Pre-reqs:** 

### MST127 PRINCIPLES OF WELDING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Instruction in preparation, cutting, and joining similar and dissimilar metals by welding using gas or electrical processes. Oxygen/acetylene and AC/DC electric are the major techniques used, but other processes will be reviewed.

Pre-reqs:

MST128

Can be Taken Concurrently



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## **Engineering Tech**

## **Engineering/Applied**

#### MST128 WELDING LAB

Credit Hours: 3 Contact Hours: 6 Lecture Hours: 0 Lab Hours: 6 Other Hours: 0

Safe working procedures are reviewed to teach the student safe working habits while using welding and sheet metal forming, cutting and joining equipment. Instruction on arc, MIG, and TIG welding equipment follows with daily practice when welding in horizontal, vertical and overhead positions. A welding project can be selected later in the course to further the student's knowledge and mastery in welding and shaping actual useable items. Gas welding and cutting is also taught and practiced during this course.

#### Pre-regs:

MST127

Can be Taken Concurrently

#### MST130 ELEMENTS OF MICROPROCESS

Credit Hours: 4 Contact Hours: 3 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

The study of microprocessor system hardware including basic understanding of the software used to control microprocessor systems. Troubleshooting techniques are studied and applied to service any microprocessor system. Meters, oscilloscopes and various probes are used in servicing work.

#### **Pre-reqs:**

**EST128** 

## MST131 STATS PROCESS CTRL CHART

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will introduce students to the concepts of variation and defect prevention. Students will learn the formulas and the correct application of control limits for variable and attribute control charts as well as how to plot data and apply basic detection rules for process control.

#### **Pre-regs:**

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

MTH101



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## **Engineering Tech**

**Engineering/Applied** 

#### MST133 PRESS WORKING FUNDAMENTALS

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers metal deformation theory, presses and ancillary equipment, die construction and die component identification. The student will draw various detailed components of dies, using a variety of drafting techniques.

#### Pre-regs:

#### MST134 HYDRAULIC AND PNEUMATIC SYS

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course is a combination of MST122 and MST123 and is the study of fluids, their properties, behaviors and applications. Topics include: basic hydraulic and pneumatic pumps, actuators, valves, piping, hydraulic and pneumatic applications, the various types of hydraulic and pneumatic circuits, and how to troubleshoot these circuits.

#### Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M092 Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

Or MTH022

Or MTH023

MTH092



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## **Engineering Tech**

**Engineering/Applied** 

#### MST135 PLUMBNG AND PIPE CODE PRINCPLE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Course concentrates on plumbing rules and regulations governing the installation of simple and complex plumbing systems with an emphasis on the specifications and regulations pertaining to joints, traps, clean-outs, water distribution, fixtures, and drainage.

Pre-regs:

#### MST136 3G WLDG CERT EXAM PREP

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course covers the fitment and joining of steel plate vertically using SMAW and GMAW processes. Specific topics include welding defects and their causes, the Heat Affected Zone and the Fusion Zone. Students will be introduced to and perform various destructive tests per American Welding Society (AWS) D1-1 Code.

#### **Pre-reqs:**

MST127

And MST128

#### MST137 6G WLDG CERT EXAM PREP

Credit Hours: 5 Contact Hours: 6 Lecture Hours: 4 Lab Hours: 2 Other Hours: 0

This course will cover: the fit-up and welding of pipe in 5G and 6G positions (uphill) using the SMAW process, the welding of root and hot pass methods done with E-6010 electrodes, and the fill and cap pass using E-7018 electrodes. Students will perform destructive tests per American Society of Mechanical Engineers (ASME) Section IX Boiler and Pressure Vessel Code.

### **Pre-reqs:**

MST127

And MST128



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## **Engineering Tech**

**Engineering/Applied** 

#### MST138 PREP GAS TUNGSTEN ARC WLDG

Credit Hours: 5 Contact Hours: 6 Lecture Hours: 4 Lab Hours: 2 Other Hours: 0

This lab course will provide the student with a technical understanding of gas tungsten arc welding, arc characteristics and welding safety procedures. In addition, the student will develop skills necessary to weld with pulsed current.

#### Pre-regs:

MST127

And MST128

#### MST139 GAS TUNGSTEN ARC WLDG TITAN

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course provides the student with the knowledge and skill to weld with the gas tungsten arc welding process on stainless steel and titanium. This course provides the student with the opportunity to develop the manual skills necessary to produce high quality welds on 16 gage and .040 stainless steel and titanium, using DCEN.

## Pre-reqs:

MST138

#### MST140 4G Weld Cert Exam Preparatory

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course covers the fit-up and welding of plate in the 4G position (overhead) using the Shielded Metal Arc Welding (SMAW) welding process with E-7018 electrodes. Welding of the roots, filler passes and cover passes are also covered. Students perform destructive tests to American Welding Society (AWS) D1.1 welding code. In addition, students may take the AWS certification exam for an additional fee.

### **Pre-reqs:**

MST127

And MST128



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## **Engineering Tech**

**Engineering/Applied** 

#### MST221 MECHANICAL DRIVE COMPON

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The study of bearings, shafts, couplings, cams, brakes, gear drives, belt drives, chain drives and clutches. Included are component application and maintenance.

Pre-regs:

#### MST223 HYDRAULC AND PNEUMATC ELEC

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course covers the study of fluids, their properties, behavior and applications. Various hydraulic and pneumatic circuits, along with cycle charts and associated electrical circuits, are reviewed. Students are required to know components and their identification symbols and operations.

**Pre-reqs:** 

### MST224 DIMENSIONAL METROLOGY

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An in-depth study of measuring principles, instruments and techniques. This course covers the measuring tools most commonly used in industry. Course covers how to read and use these instruments, how to prevent the most common errors and how to minimize errors.

Pre-regs:



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## **Engineering Tech**

**Engineering/Applied** 

#### MST225 DC CRANE CONTROL

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course covers basic DC crane control including operator controls, DC motors, and relay control with an emphasis on maintenance troubleshooting using blueprints and schematics.

#### Pre-regs:

#### MST226 TUNGSTEN INERT GAS WELD

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

Study of standard and programmable TIG welding equipment: welding of various metals such as aluminum, stainless steel, copper, and mild steel with considerations given to variables such as shielding gas types and sizes, and types of tungsten electrodes.

#### Pre-regs:

And MST127

MST128

#### MST227 METALLIC INERT GAS WELD

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

Study of application and use of continuous consumable with electrode application and MIG welding equipment. Properties of gases with regard to flow and regulation in gas metal-arc. Welding techniques are studied in relation to welding steels and non-ferrous materials.

### **Pre-reqs:**

MST127

And MST128



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## **Engineering Tech**

**Engineering/Applied** 

#### MST228 SHIELDED METAL ARC I

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

Continuation of shielded ARC welding as it relates in vertical, overhead 45, and overhead positions, using E-6010 and E-7018 low hydrogen type electrodes.

#### Pre-regs:

MST127

And MST128

#### PET101 INTRO TO THE PETROL INDUST

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an overview of the oil and natural gas industry. Topics covered include history of petroleum, basic geology, drilling, production, transportation, refining, gas processing, storage, environmental health and safety concerns and the economic and energy impact of petroleum products. Students will be required to complete the International Association of Drilling Contractors Rig Pass safety program with SafeLAND and SafeGULF endorsements.

Pre-reqs:

## PET102 INTRO TO SUP CTRL & DATA ACQ

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will familiarize the student with Supervisory Control and Data Acquisition (SCADA) systems. SCADA is a real-time communication and remote controlling system over a large geographic scale which allows for the collection of data during production, transmission or processing. The course will provide the knowledge to identify the various system components, redundant backup systems and recognize the benefits and limitations of a SCADA system. Students will be asked to sketch a SCADA system for an industry scenario.

**Pre-reqs:** 



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## **Engineering Tech**

**Engineering/Applied** 

#### PET131 CORROSION BASICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides a basic understanding of the corrosion process, common corroding agents, methods of detecting and measuring corrosion and various methods of corrosion control. Special emphasis will be placed on cathodic protection. The course is designed to provide an introduction for technicians and operators who will deal regularly with corrosion.

Pre-regs:

#### PET132 PETROLEUM INSTRUMENTATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is an overview of the latest procedures, practices, and equipment used in the measurement of petroleum products. The course provides a basic understanding of the metering equipment, techniques and calculations required to accurately measure liquid levels in storage tanks as well as flowing natural gas. Students will be introduced to tank gauging, sampling, and various metering devices such as head meters, turbine meters, orifice plate meters and venturi meters.

#### **Pre-reqs:**

Or ARL234

And CHM101

Or EST130

EST230

## PET135 Meas & Basic Pipeline Oper

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will provide an overview of pipeline design, maintenance, and operations, including safety and regulatory compliance. Students will gain a basic understanding of pipeline economic importance, quality control and management, and measurement collection, validation, and processing, as it applies to modern pipeline business operations.

Pre-reqs:



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## **Engineering Tech**

**Engineering/Applied** 

#### PET210 Petroleum Process Controls

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Process Controls will encompass skills learned in PLCs I, SCADA, and Petroleum Instrumentation coursework. The course will focus on the operation and maintenance of temperature, level, flow and pressure control loops. Students will be engaged to monitor, troubleshoot and optimize automated control loops using resistance thermal devices (RTDs), thermocouples, current to pressure transducers, floats, relays and flow calculating computers.

Pre-reqs:

#### PET230 Petrol Measure Capstone

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students will be tasked to optimize uptime, production, and take-away capacity of a simulated and/or functioning well pad. Pad and tank battery operations such as influent and effluent totalizing, fluid level monitoring, temperature control, separator efficiency, and logistics management will be used to integrate and apply the skills and knowledge developed throughout the program. Learners taking this course will work independently, in teams, and in varying roles.

#### **Pre-reqs:**

**PET102** 

And PET131

And PET135

And PET141 Can be Taken Concurrently

And PET210 Can be Taken Concurrently

## **General Engineering**

## PET141 Production Operations

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This class will provide an overview of lease operation methods utilized at producing petroleum well sites. Emphasis will be placed on recovery techniques, surface handling and treatment of reservoir fluids, surface equipment, preventative maintenance, measurement devices, and safety. Students will be responsible for analyzing charts and diagrams and calculating various flow volumes and pressures associated well operations.

Pre-regs:



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## **Engineering Tech**

## **General Engineering**

#### PET142 Artificial Lift

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is an overview of the latest procedures, practices, and equipment used in artificially lifting reservoir fluids. The class will describe hardware and operational issues associated with downhole and surface equipment. Rod pumping, gas lift, plunger lift and other related methods of artificial lift will be covered.

Pre-regs:

## PIP110 Plumbing/Pipefit Appl I

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course covers core plumbing and piping concepts and applications. Topics include maintenance tools and equipment, piping systems, plumbing systems, and piping layout.

Pre-regs:

## PIP120 Plumbing/Pipefit Appl II

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course covers intermediate plumbing and piping concepts and applications. Topics include building trades applications, steam/hot water systems, hydronics, and core systems maintenance.

Pre-reqs:



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## **Engineering Tech**

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PIP130 Plumbing/Pipefit Appl I	Ш
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Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course covers advanced plumbing and piping concepts and applications. Topics include advanced building trades applications, backflow prevention application and design, and piping of medical gasses.

Pre-regs:

## PIP140 HVAC Systems Operations I

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course covers water related HVAC systems and applications. Topics include steam systems, hot water systems, and hydronics.

Pre-regs:

## PIP150 HVAC Systems Operations II

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course covers advanced heating and cooling systems in residential and commercial/industrial applications. Topics include advanced residential and commercial/industrial installation techniques and design principles.

Pre-regs:

#### **Health and Human Services**

**Criminal Justice** 



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#### **Health and Human Services**

**Criminal Justice** 

#### CIS121 INTRO TO CRIMINAL JUSTICE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This introductory course provides an overview of the American criminal justice system, covering its three main components: policing, the courts, and corrections. Topics include historical development of the criminal justice system, theoretical explanations of criminal behavior; measuring crime statistics, strategies and models of law enforcement, criminal law and procedure, sentencing and punishment, and the juvenile justice system. TAG approved Spring 2012 OSS031. CTAG approved STCJ001 effective Spring 2012

Pre-reqs:

## CJS124 POLICING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines the role of local, state, and federal law enforcement in American society. Topics include the structure and functions of police organizations; the historical development of policing; methodology; models of policing, including community policing; and current issues in law enforcement. TAG approved Spring 2012 OSS032.

#### **Pre-reqs:**

**CJS121** 

### CIS129 CORRECTIONS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines community and institutional corrections in the United States. Topics include the history and goals of punishment, supervised release, intermediate sanctions, institutional administration, and issues in corrections. TAG approved Spring 2012 OSS033.

#### Pre-regs:

**CJS121** 



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#### **Health and Human Services**

### **Criminal Justice**

#### CIS140 LAW ENFORCEMENT ACADEMY I

Credit Hours: 12 Contact Hours: 16 Lecture Hours: 8 Lab Hours: 8 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum. The course provides an overview of the American criminal justice system and focuses on Ohio criminal law, criminal procedure for the law enforcement professional, general and investigative report writing, law enforcement driving techniques, and physical conditioning.

### Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

## CJS221 CRIMINOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines theories and patterns of criminal behavior. Topics include types and causes of crime, crime rates, and punishment. TAG approved Spring 2012 OSS034.

## Pre-reqs:

**CJS121** 

## CJS222 CRIMINAL LAW IN THE US

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines criminal law in the U.S. Topics include the structure and functions of the legal system, the historical development of the criminal law, and elements of major crimes and defenses.

### Pre-regs:

CJS121



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#### **Health and Human Services**

### **Criminal Justice**

### CIS223 Criminal Procedure

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines criminal procedure and related concepts. Topics include the constitutional protections of the 4th, 5th and 6th amendments to the U.S. Constitution as well as the criminal justice process from arrest to conclusion.

#### Pre-regs:

**CJS121** 

#### CJS240 LAW ENFORCEMENT ACADEMY II

Credit Hours: 12 Contact Hours: 16 Lecture Hours: 8 Lab Hours: 8 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum. The course focuses on firearms training, patrol administration, traffic enforcement, criminal investigation, intermediate subject control techniques and physical conditioning, and human relations.

#### **Pre-reqs:**

**CJS140** 

## PSC122 Intro Law and Legal System

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces students to the American legal system and the criminal, civil, and administrative components of that system. Topics include the organization of the courts, the origins of law, the adversarial system, legal procedures, an introduction to legal ethics, and several principles of the civil law, including tort and contract law.

## Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102 704



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#### **Health and Human Services**

#### **Criminal Justice**

## PSC123 Government & Legal Ethics

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explains the rules and standards of ethical and professional responsibility for attorneys, policy makers, and government employees, with emphases on the Ohio Code of Professional Responsibility and Ohio Ethics Law for public officials and employees. Topics include competency, confidentiality, conflicts of interest, financial disclosure, and impartiality.

## Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

## SSC201 Study Away: Experiential Lrng

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course will apply critical thinking skills, as well as academic knowledge and concepts, to real-life experiences by exposing students to communities, cultural activities, historical sites, agencies and/or institutions outside the traditional classroom setting and beyond the local community. Due to the nature of the subject matter and travel requirements, academic and eligibility standards may apply.

### Pre-reqs:

#### **Dental Hygiene**

## DAS121 DENTAL ASSISTING TECH I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The student will be introduced to the fundamentals of working in a dental office as a chairside assistant. Concepts and techniques of basic equipment, four-handed dentistry, oral evacuation, instrument identification, and proper use are discussed. Oral examination, charting, medical/dental histories, sterilization, and infection control procedures are emphasized.



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#### **Health and Human Services**

**Dental Hygiene** 

#### DAS121 DENTAL ASSISTING TECH I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The student will be introduced to the fundamentals of working in a dental office as a chairside assistant. Concepts and techniques of basic equipment, four-handed dentistry, oral evacuation, instrument identification, and proper use are discussed. Oral examination, charting, medical/dental histories, sterilization, and infection control procedures are emphasized.

Pre-regs:

#### DAS122 DENTAL ASSISTING RADIOGRAPHY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on the principles of radiology, x-ray production, radiation safety, practices and hazards. Radiographic techniques, interpretation mounting and evaluation process are presented. Radiographic processing procedures, chemicals, and equipment are emphasized.

**Pre-reqs:** 

### DAS123 DENTAL ASSISTING TECH II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Builds on knowledge gained in DAS121. Health and Safety considerations for basic infection control, dental emergencies, common drugs used in dentistry, and oral disease processes are emphasized. Principles and skills of chairside assisting are further developed through demonstration and partner practice. Ethics and jurisprudence is also covered.

Pre-reqs:

**DAS121** 

Can be Taken Concurrently



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#### **Health and Human Services**

**Dental Hygiene** 

## DAS124 DENTAL ASSISTING MATERIALS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course focuses on the physical and chemical properties of various materials used in the dental office. Emphasis is placed on manipulation and practical application of dental materials chair side and in the laboratory.

Pre-regs:

#### DAS125 DENTAL ASSISTING SPECIALTY

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

This course offers the dental assisting student practical experience and knowledge in one of three common specialty areas.

Option A: Clinical Practice

This specialty option provides the student with an opportunity for practical application of dental principles and skills of basic qualified personnel.

Option B: Community Dentistry

This specialty option provides the student with an opportunity for advance knowledge and practice in preventative dental services and public health dentistry.

Option C: Administrative Dental Personnel

This specialty option is designed to provide the student with an opportunity to learn basic administrative and business procedures common in the dental practice.

Although each student will select one major area of focus, it is expected that each student will gain knowledge of all major fields through discussion and clinical experience.

**DAS123** 

#### DAS128 INTRO TO DENTAL TERM AND ANAT

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will introduce basic concepts in dental terminology and head and neck anatomy necessary for preparation for beginning technical studies of dental auxiliary procedures.

Pre-reqs:



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#### **Health and Human Services**

**Dental Hygiene** 

## DAS129 Fund of the Dental Prof

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is an introduction to the fundamentals of working in a dental office as a Dental Practice Coordinator within the dental team. This course provides an introduction to infection control, dental health safety, medical and dental histories, HIPAA policy, communication skills, dental procedures, treatment options, and materials used. Aspects of treatment planning, restorative charting, periodontal charting, prevention techniques, and radiography as they relate to the role of a Dental Practice Coordinator are emphasized. Students must acquire a Healthcare provider CPR certification as a requirement in this course.

#### Pre-regs:

**DAS130** 

Can be Taken Concurrently

#### DAS130 Dental Practice Coor I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on the application of dental software. It also introduces management of the dental office including dental office procedures and techniques, written, verbal, and electronic communications, dental software and computer use, dental insurance, introduction to CDT coding, inventory control, accounts receivable, accounts payable, recall systems, scheduling, marketing, and staff and patient management. Concepts of the business of dentistry as a service profession, legal and ethical issues are covered.

#### Pre-regs:

**DAS129** 

Can be Taken Concurrently

### **DAS131** Dental Insurance

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will focus on dental insurance coding, insurance verification, preparing and submitting preauthorization to dental insurance companies, submitting dental claims, and treatment plan presentations. Scheduling and confirming appointments will be included with the treatment plan appointment and sequence of appointments. Tracking treatment progress and communicating with patients, the dental team, and insurance companies regarding financial arrangements will be part of the course. Finally, accepting and posting payments for treatment will be completed utilizing industry standard dental software.

#### **Pre-reqs:**

**DAS130** 



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#### **Health and Human Services**

**Dental Hygiene** 

#### DAS132 Dental Practice Coord II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This capstone course enhances the dental office experience permitting the student to serve as a non-paid dental practice coordinator in offices affiliated with Stark State College. Observation of dental practice functions as well as completing a variety of dental practice coordination tasks is part of this course. Students will participate in didactic instruction related to their experiences, employment strategies, interviewing techniques for the interviewer and interviewee, and work ethic. Management of medical and dental emergencies are emphasized. Students will create an office policy manual in this course.

### Pre-regs:

**DAS130** 

## DAS225 Dental Morphology for EFDA

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will introduce EFDA students to the specific morphology associated with reproducing proper dental form and function during restorative dental procedures, while communicating appropriately with other dental professionals utilizing proper terminology.

**Pre-reqs:** 

### DAS226 EXPANDED DENTAL ASSISTING I

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course will cover basic concepts in head, neck and basic dental anatomy, terminology, tooth physiology/morphology to support the restorative dental auxiliary functions. Additional topics include laws and ethics, ergonomics, instrumentation/application techniques, isolation, occlusion, dental materials (including amalgam, resins, bases/liners, and intra-coronal temporary materials/ procedures).

Pre-regs:



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#### **Health and Human Services**

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#### DAS227 EXPANDED DENTAL ASSISTING II

Credit Hours: 4 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This course will serve to teach competency in the basic restorative procedures allowed to expanded function dental auxiliary candidates.

Pre-regs:

#### DAS228 DIRECTED CLINICAL PRACTICE

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This course is a directive practice course, where under the supervision of a faculty dentist, expanded functions auxiliary students will provide restorative patient care as allowed by the EFDA certification. Students will be required to participate in onsite and offsite clinical rotations.

#### Pre-regs:

**DAS225** 

And DAS226

And DAS227

#### DHY121 HEAD/NECK AND ORAL ANATOMY

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

The course addresses gross anatomy of the head and neck, tooth morpholgy and physiology of occlusion.

Pre-reqs:



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#### **Health and Human Services**

**Dental Hygiene** 

#### DHY122 ORAL HIST AND EMBRYOLOGY

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Embryological development and histologic characteristics of the orofacial organs and structures is presented.

Pre-regs:

#### DHY123 DENTAL RADIOGRAPHY

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

This course is designed to introduce the student to fundamental knowledge of radiographic principles and safety considerations. Skill development in image production, mounting techniques and radiographic interpretation is emphasized.

Pre-regs:

## **DHY124 PERIODONTICS I**

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Introduction to the etiology, diagnosis, and prevention of diseases affecting the tissues that support, attach, and surround the teeth. Basic periodontic terminology and concepts utilized for dental hygiene care to include patient periodontal assessment and treatment modalities. Term and concepts applied in the clinical setting in DHY 133.

Pre-regs:



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#### **Health and Human Services**

**Dental Hygiene** 

#### DHY125 DENTAL MATERIALS

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

Course design covers fundamental knowledge of the dental materials commonly used in contemporary dental practice including their physical, chemical and manipulative characteristics. Skill development in correctly using these materials is emphasized.

## Pre-reqs:

**DHY131** 

#### DHY126 PATHOLOGY

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

Diseases of development and growth including neoplasms, diseases of microbial origin, injury and repair, disturbances of metabolism and diseases of specific systems is presented.

#### Pre-regs:

DHY122

### **DHY131 FUND DENTAL HYGIENE PRAC**

Credit Hours: 4 Contact Hours: 8 Lecture Hours: 2 Lab Hours: 6 Other Hours: 0

An introduction to dentistry, the dental hygiene profession, and ethical and professional patient care, terminology and basic skills utilized in the contemporary practice of dental hygiene, including infection control procedures and patient assessment and treatment are covered. Concepts are applied in a preclinical setting with manikins and student partners.

Pre-reqs:



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#### **Health and Human Services**

**Dental Hygiene** 

#### DHY132 DENTAL HYGIENE THEORY I

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course builds upon fundamentals to provide further study of dental hygiene practices including introduction to the dental hygiene process of care related to patient needs, management of medical/dental emergencies, health communication and dental specialties.

## Pre-reqs:

**DHY131** 

## DHY133 CLINICAL DENTAL HYG I

Credit Hours: 2 Contact Hours: 8 Lecture Hours: 0 Lab Hours: 8 Other Hours: 0

Supervised clinical patient care experiences which reinforce fundamentals, correlate with, and allow the application of, dental procedures and concepts presented in Dental Hygiene Theory I. Emphasis on application of basic skills and professionalism.

#### Pre-regs:

And DHY123

**DHY131** 

#### DHY134 CLINICAL DENTAL HYG IA

Credit Hours: 1 Contact Hours: 4 Lecture Hours: 0 Lab Hours: 4 Other Hours: 0

Supervised clinical patient care experiences which allow further development of clinical skills and application of concepts. Emphasis on patient management and effective communications.

### **Pre-reqs:**



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#### **Health and Human Services**

**Dental Hygiene** 

#### DHY221 NUTRITION IN DENTISTRY

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Basic concepts of nutrition and the effects on general as well as oral health are presented. The role of nutrition in dentistry for disease prevention and health promotion is emphasized. Dietary analysis and counseling methodologies are discussed and practiced.

## Pre-reqs:

**DHY132** 

#### DHY222 DENTAL PHARMACOLOGY

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

General principles of drug regulation and prescribing, action and handling and adverse reactions is covered. Body systems, medical histories and their impact on drugs used in dentistry and their potential to alter dental treatment is discussed. Drugs used to manage medical emergencies are emphasized.

#### **Pre-reqs:**

BIO221

And DHY126

#### **DHY223** Community Oral Health

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course focuses on program planning models, incorporation of research methods into program development and evaluation and offers practical application of community health concepts. Concepts of research design and methodology in community program planning are discussed. Learning experiences emphasize reading and reviewing scientific literature, understanding statistical reporting and the levels of public health prevention and administration. Assessing, planning, implementing and evaluating the oral health of various populations in a community setting are presented. Field experience required.

### **Pre-reqs:**



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#### **Health and Human Services**

**Dental Hygiene** 

#### DHY224 PERIODONTICS II

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The fundamentals of periodontics are reinforced and clinical assessment, disease classification, and treatment options are discussed using clinical case applications. Surgical procedures are observed through a required field observation experience. Current advances in periodontal research and therapy is presented including oral-systemic connections.

### Pre-reqs:

**DHY124** 

#### DHY225 ANESTHESIA AND PAIN CONTROL

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 3 Other Hours: 0

This course will teach the basic concepts of anesthesia and pain control as they relate to patient management in the provision of comprehensive dental hygiene care. Lecture will focus on theory of pain control, selection of pain control modalities and implications of local anesthesia. Topics will utilize knowledge and review of anatomy, physiology and pharmacology. Lab includes competency based practice of the administration of pain control modalities.

#### **Pre-reqs:**

BIO122

And DHY121

And DHY132

#### DHY231 DENTAL HYGIENE THEORY II

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course is designed to further explore treatment modalities and dental hygiene services such as oral health indices and supplemental care procedures. It focuses on the incorporation of all phases of assessment and development of more complex dental hygiene care plans and case presentations focusing on individual patient care. Required lab performed in the clinical setting with manikins and student partners include ultrasonic/sonic instrumentation, air polishing, suture removal, periodontal dressing placement, and advanced instrumentation techniques.

## Pre-reqs:



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#### **Health and Human Services**

**Dental Hygiene** 

#### DHY232 CLINICAL DENTAL HYG II

Credit Hours: 4 Contact Hours: 12 Lecture Hours: 0 Lab Hours: 12 Other Hours: 0

Supervised clinical patient care experiences which refine fundamentals, correlate with, and allow application of, dental hygiene procedures and lecture concepts presented in Dental Hygiene Theory II. Emphasis on total patient care and treatment planning, including judgment and decision-making. Off site clinical experiences required.

## Pre-reqs:

**DHY134** 

#### DHY233 DENTAL HYGIENE THEO III

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

The course further explores treatment modalities and adjunct procedures. The course focuses on transitions to practice including principles of office management, jurisprudence, ethics and current issues in dental hygiene.

#### **Pre-reqs:**

**DHY231** 

### DHY234 CLINICAL DENTAL HYG III

Credit Hours: 5 Contact Hours: 16 Lecture Hours: 0 Lab Hours: 16 Other Hours: 0

Supervised clinical patient care experiences that correlate with, and allow application of, dental hygiene procedures and lecture concepts presented in Dental Hygiene Theory III. Development of proficiency in implementing treatment plans to meet individual patient's oral health needs. Emphasis on self-evaluation and quality assurance.

#### Pre-regs:

**DHY232** 

## **Dietary Management**



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### **Health and Human Services**

**Dietary Management** 

#### DMA135 Food Oper Directed Practice

Credit Hours: 1 Contact Hours: 5 Lecture Hours: 0 Lab Hours: 5 Other Hours: 0

Under the supervision of a registered/licensed dietitian, registered dietetic technician or Certified Dietary Manager or other foodservice professional, the student will complete 50-75 hours of directed practice in a foodservice setting within a 16-week semester. The student will participate in all of the functions of a foodservice operation. Working with the preceptor, the student will apply the knowledge gained from the Food Operations course.

Pre-reqs:

NTR130 Can be Taken Concurrently

## DMA145 med Nutr Therapy Direct Prac

Credit Hours: 1 Contact Hours: 5 Lecture Hours: 0 Lab Hours: 5 Other Hours: 0

Under the supervision of a registered/licensed dietitian or registered dietetic technician, the student will complete 50-75 hours of directed practice in a foodservice setting within a 16-week semester. The student will participate in all of the functions of a clinical setting. Working with the preceptor, the student will apply the knowledge gained from the previous and current coursework.

#### **Pre-reqs:**

NTR121

And NTR122

Can be Taken Concurrently

#### **DMA155** Dietary Systems Directed Pract

Credit Hours: 1 Contact Hours: 5 Lecture Hours: 0 Lab Hours: 5 Other Hours: 0

Under the supervision of a registered/licensed dietitian, registered dietetic technician or Certified Dietary Manager or other foodservice professional, the student will complete 50-75 hours of directed practice in a foodservice managerial setting, within a 16-week semester. The student will participate in all of the managerial functions of a foodservice operation. Working with the preceptor, the student will apply the knowledge gained from the Dietary Systems course.

**Pre-reqs:** 

**DTR228** 

Can be Taken Concurrently



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#### **Health and Human Services**

**Dietary Management** 

#### DTR121 FOOD SCIENCE PRINCIPLES

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The course provides an overview of fundamental biological, chemical and physical scientific principles associated with the study of foods. Topics include food composition and functional properties, food additives and regulations/laws, food safety and microbiology, toxicology, food processing, food engineering, food biotechnology, sustainability, product development, and sensory evaluation. In addition, the coursework includes discussion of the role of food technology in world health, environmental, and nutritional concerns. CTFSC001 effective fall 20018

Pre-regs:

#### DTR122 LIFE CYCLE NUTRITION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Nutrition concerns, needs and issues over the entire life span from conception through life are covered in this course. The course materials focus on nutrition during pregnancy, infancy, childhood, adolescence and adulthood. Each life span section covers specialized concerns for that state.

#### **Pre-reqs:**

NTR121

## DTR123 APPLIED NUTRITION

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course covers the basic application of nutrition assessment to all patients. It also involves the charting of medical records using the current Medical Nutrition Therapy terminology. Along with the process of assessment, the student will learn interviewing techniques and counseling strategies. Nutrition education is introduced using the food exchange lists, nutrition surveys, and the dietary standards.

# Pre-reqs:

And DTR221
And DTR223
NTR121

Can be Taken Concurrently
Can be Taken Concurrently



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### **Health and Human Services**

**Dietary Management** 

# DTR221 MEDICAL NUTRITION THERAPY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides advanced nutritional principles, including the mechanisms through which nutrients meet the human biological needs. The applications of the principles of nutrition as they relate to diet in disease with an emphasis on the effects of pathological conditions on nutritional needs are presented. The process of medical nutrition therapy is approached through the use of the 'Nutrition Care Process', as required by the Academy of Nutrition and Dietetics.

## Pre-reqs:

NTR121

And DTR123 Can be Taken Concurrently
And DTR223 Can be Taken Concurrently

## DTR223 NUTRITION/MNT DIRECTED PRACTIC

Credit Hours: 2 Contact Hours: 10 Lecture Hours: 0 Lab Hours: 0 Other Hours: 10

Under the supervision of a registered/licensed dietitian, the student will complete 160 hours of directed practice in a clinical setting, within a 16 week semester. The student will shadow the dietitian and observe the Nutrition Care Process, including the process of nutrition assessment, diagnosis, intervention and evaluation and monitoring. During this rotation, the student will also review charts for medical record documentation, anthropometric data, food-drug interactions and the interpretation of laboratory values. The student will work with the dietitian in examining and participating in the role of the Dietetic Technician in the prevention and treatment of illness and chronic diseases. Applications of treatment will be observed in the management of diseases.

### Pre-regs:

DTR236 Can be Taken Concurrently

### DTR224 CULTURAL NUTRITION

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course provides information on the health, culture, food and nutritional habits of most ethnic and racial groups living in the United States. Coverage of material will include the history, immigration, demographics, worldviews, religion, family structure, traditional beliefs and practices of each cultural group. Traditional and contemporary diets for each cultural group, along with the nutritional status of members of each group will be covered.

### Pre-regs:

**DTR221** 



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### **Health and Human Services**

**Dietary Management** 

### DTR225 COMMUNITY NUTRITION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is an introduction to the program planning, policies, resources, and nutrition issues specific to community nutrition. The student will also be provided with an understanding of creating and implementing nutrition programs for various life cycle stages.

### Pre-regs:

NTR121

#### DTR226 COMM NUTRITION DIR PRACTICE

Credit Hours: 2 Contact Hours: 10 Lecture Hours: 0 Lab Hours: 0 Other Hours: 10

Under the supervision of a registered/licensed dietitian or other qualified preceptor, the student will complete 160 hours of directed practice in a community setting. The student will observe, participate and demonstrate competence for standards related to nutritional care and professionalism within a community setting. Student hours are completed in community settings, including schools, daycares, WIC, Head Start, Mobile Meals, health departments, YMCA/YWCA, Cooperative Extension Offices or other community settings, as appropriate.

### Pre-regs:

DTR225 Can be Taken Concurrently

## DTR227 FOODSERVICE OPERATIONS I

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This is the first course that introduces the scientific and nutritional principles involved in food preparation including ingredient function, food composition, nutritional quality, terminology, equipment usage, preparation techniques and product evaluation. Quantity food production techniques and principles are introduced. Kitchen design and equipment selection is introduced in terms of usage with products. This course includes a lab section which includes menu costing and preparation, tools, and equipment used in quantity food preparation, 'Mise en place', basic principles of cooking, knife skills, stocks and soups, sauces, principles of all meat, poultry and fish cooking, and vegetables. Fruits, principles of bake shop, yeast breads, and plate presentation are also introduced. Students will also learn healthy cooking principles as required by the dietary guidelines, recipe and menu modification, allergies and understanding of altered textures and buffet presentation.

And DMA121 Can be Taken Concurrently

DTR121

And DTR228 Can be Taken Concurrently



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### **Health and Human Services**

**Dietary Management** 

### DTR228 DIETARY SYSTEMS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Comprehensive systems approach of how to manage foodservice and dietary operations, efficiently and effectively, as they relate to the role and interactions of all departments involved in the total organization of a facility. The foodservice systems model is used as a guide to show managers how to transform all of the systems into outputs of meals, customer satisfaction, employee satisfaction and financial accountability. Additional coverage of sustainability, social responsibility and globalization related to dietary services is incorporated into the course materials.

Pre-reqs:

#### DTR229 PROFESSIONAL DIETETICS

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Final course in the Dietetic Technician program that brings all of the issues of Dietetics together on a professional level: counseling skills, Nutrition Care Plans, team building, professionalism, ethics, management skills and current practices. Current research will be reviewed and analyzed. Review of the material for the registration examination.

**Pre-reqs:** 

## DTR230 FOODSERVICE OPERATIONS II

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

This is the second course in introducing the scientific and nutritional principles involved in food preparation including ingredient function, food composition, nutritional quality, terminology, equipment usage, preparation techniques and product evaluation. Quantity food production techniques and principles are introduced. Kitchen design and equipment selection is introduced in terms of usage with products. This course includes a lab section which includes the preparation of dairy products, breakfast products, salads, grains, pasta and potatoes, sandwiches, bakeshop principles, cakes, custards, frozen desserts, and hors d'oeuvres. Students will also learn healthy cooking principles as required by the dietary guidelines, recipe and menu modification, allergies, an understanding of altered textures and buffet presentation of quantity foods.

Pre-regs:

**DTR227** 

And DTR231

Can be Taken Concurrently



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### **Health and Human Services**

**Dietary Management** 

### DTR231 FOODSERVICE DIRECTED PRACTICE

Credit Hours: 2 Contact Hours: 10 Lecture Hours: 0 Lab Hours: 0 Other Hours: 10

Under the supervision of a registered/licensed dietitian or other qualified foodservice preceptor, the dietetic technician student will complete 160 hours of directed practice in a foodservice setting, within a 16-week semester. The student will participate in all of the stations involved in foodservice in order to understand the workings of a kitchen. During this directed practice the student will work with the Foodservice Director and apply the knowledge and skills that have been learned from previous coursework.

### Pre-regs:

And DTR228

Can be Taken Concurrently

NTR130

And NTR130L

# DTR235 Medical Nutrition Therapy I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Students will develop an understanding of the steps of the Nutrition Care Process (assessment, diagnosis, intervention, and monitoring and evaluation), which will be systematically utilized to explore nutrition-related problems. Coursework includes the nutritional implications of pathological conditions and alterations to diet for specific health issues or disorders, including but not limited to diseases of energy imbalance, cardiovascular system, upper gastrointestinal tract, and the endocrine system.

### Pre-regs:

**NTR122** 

### DTR236 Medical Nutrition Therapy II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The steps of the Nutrition Care Process (assessment, diagnosis, intervention, and monitoring and evaluation) will be systematically utilized to explore nutrition-related problems. Coursework includes nutritional implications of pathological conditions and alterations to diet for specific health issues or disorders, including but not limited to diseases or disorders of the lower gastrointestinal tract, gallbladder, liver, hematological, renal and respiratory systems. Additional topics include nutritional management of cancers, musculoskeletal, neurological, metabolic disorders, and the use of enteral and parenteral support as a means of nutritional intervention.

# Pre-reqs:



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### **Health and Human Services**

## **Dietary Management**

### NTR121 Nutrition for Health

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on the essentials of nutrition as required for health. The composition of foods, as well as the functions, sources and interactions of essential nutrients within the role of the human body's metabolic system are discussed. Assessment of nutritional health risks, along with health promotion and disease prevention is discussed. The influence of age, growth and normal development of the life stages are discussed in terms of the nutritional requirements. Methods of meeting dietary needs and sources of reliable nutritional information are addressed along with current nutritional issues and research. TAG approved OHL016, effective Summer 2017.

## Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

## NTR122 Intro Medical Nutr Therapy

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course builds on foundation knowledge of basic nutrition fundamentals and introduces skills for basic medical nutrition therapy, as it relates to nutritional screening, client interviewing and data gathering, nutrition-related calculations, modification of selected diet plans, implementing nutrition care and basic nutrition education, and documentation of relevant nutrition data. Federal and state regulations, including client/patient rights and documentation compliance, as it relates to nutritional care, will be reviewed.

## Pre-reqs:

NTR121

## NTR130 Food Operations

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover all principles and aspects of food preparation including the ingredient function, food composition, nutritional quality, equipment usage, preparation techniques and product evaluation. Menu costing, production, inventory management, recipe and menu modification, purchasing, quality control, as well as, allergy and altered textures are discussed. Cultural and religious cuisines are taught along with the nutritional needs of each ethnic group. Principles of microbiology are taught as they relate to the principles of food safety and kitchen management. ServSafe principles are taught ending with the NRA examination.

### Pre-regs:



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### **Health and Human Services**

## **Dietary Management**

### NTR130L Food Operations Lab

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

This lab coincides with the Food Operations course, NTR130 for Dietetic Technician majors only. The student will prepare foods using skills and methods learned in lecture. Labs will include preparation of all variety of foods, recipes, cultural and ethnic foods and modified foods for medical diets.

## Pre-reqs:

NTR130

Can be Taken Concurrently

### Fire and EMS

### **EMS121 EMERGENCY MEDICAL TECHNICIAN**

Credit Hours: 7 Contact Hours: 11 Lecture Hours: 5 Lab Hours: 6 Other Hours: 0

The Emergency Medical Technician (EMT) course provides theory and practical skills training for managing medical and traumatic situations at the EMT level and follows the objectives as listed in the Ohio Administrative Code. CTAG approved course CTEMTB002, effective Summer 2013. MTAG approved course CTEMS 002, effective fall 2016

### Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

## EMS122 PARAMEDICI

Credit Hours: 9 Contact Hours: 11 Lecture Hours: 8 Lab Hours: 3 Other Hours: 0

This course is in the first semester of a four-semester sequence. Content follows the objectives for paramedic education according to the Ohio Administrative Code 4765 and includes the knowledge and skills required to perform patient assessment and management of medical and traumatic emergencies by performing rapid assessment, interpretation of data and advanced intervention for patients of all ages from neonates to geriatric. effective Summer 2016: STEMS004

Pre-reqs: 724



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### **Health and Human Services**

Fire and EMS

### EMS122 PARAMEDICI

Credit Hours: 9 Contact Hours: 11 Lecture Hours: 8 Lab Hours: 3 Other Hours: 0

This course is in the first semester of a four-semester sequence. Content follows the objectives for paramedic education according to the Ohio Administrative Code 4765 and includes the knowledge and skills required to perform patient assessment and management of medical and traumatic emergencies by performing rapid assessment, interpretation of data and advanced intervention for patients of all ages from neonates to geriatric. effective Summer 2016: STEMS004

## Pre-reqs:

BIO101

And EMS121

And EMS124

Can be Taken Concurrently

### EMS124 Paramedic I Clinical

Credit Hours: 1 Contact Hours: 6 Lecture Hours: 0 Lab Hours: 6 Other Hours: 0

This course is a co-requisite to Paramedic I. It consists of the clinical and field internship component relative to the course content and skills of Paramedic I, EMS122, including but not limited to medication administration, initiation of IV therapy and advanced airway techniques. effective Summer 2016: STEMS004

### Pre-regs:

And BIO101

EMS121

And EMS122

Can be Taken Concurrently

### EMS221 PARAMEDIC II

Credit Hours: 9 Contact Hours: 11 Lecture Hours: 8 Lab Hours: 3 Other Hours: 0

This course is in the second semester of a four-semester sequence. Content follows the objectives for paramedic education according to the Ohio Administrative Code 4765 and includes the knowledge and skills required to perform patient assessment and management of medical and traumatic emergencies by performing rapid assessment, interpretation of data and advanced intervention for patients of all ages from neonates to geriatric. effective Summer 2016: STEMS004

### Pre-regs:

EMS122

And EMS124

And EMS223

Can be Taken Concurrently



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### **Health and Human Services**

Fire and EMS

# EMS222 PARAMEDIC III

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is in the third semester of a four-semester sequence. Content follows the objectives for paramedic education according to the Ohio Administrative Code 4765 and includes the knowledge and skills required to perform patient assessment and management of medical and traumatic emergencies by performing rapid assessment, interpretation of data and advanced intervention for patients of all ages from neonates to geriatric. effective Summer 2016: CTEMS004

## Pre-reqs:

EMS221

And EMS223

### EMS223 PARAMEDIC II CLINICAL

Credit Hours: 2 Contact Hours: 12 Lecture Hours: 0 Lab Hours: 12 Other Hours: 0

This course is a co-requisite to Paramedic II. It consists of the clinical and field internship component relative to the course content and skills of Paramedic II, EMS221, including but not limited to cardiac monitoring and ECG interpretation, advanced airway skills and advanced trauma management. effective Summer 2016: CTEMS004

# Pre-reqs:

EMS122

And EMS124

And EMS221

Can be Taken Concurrently

# EMS224 PARAMEDIC IV

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

This capstone course is in the fourth semester of a four-semester sequence. Content follows the objectives for paramedic education according to the Ohio Administrative Code 4765 and includes the knowledge and skills required to perform patient assessment and management of medical and traumatic emergencies by performing rapid assessment, interpretation of data and advanced intervention for patients of all ages from neonates to geriatrics. Demonstration of terminal competencies and preparation for paramedic psychomotor competency testing is included. effective Summer 2016: CTEMS004

### **Pre-reqs:**

**EMS222** 

And EMS225 And EMS226 Can be Taken Concurrently



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### **Health and Human Services**

Fire and EMS

### EMS225 Paramedic IV Clinical

Credit Hours: 1 Contact Hours: 6 Lecture Hours: 0 Lab Hours: 6 Other Hours: 0

This capstone course is a co-requisite to Paramedic IV. It consists of the clinical and field internship component relative to course content and skills of Paramedic IV, EMS224. Focus is on evaluation of team leadership in the field setting. effective Summer 2016 CTEMS004

## Pre-reqs:

EMS222

And EMS224

Can be Taken Concurrently

And EMS226

### EMS226 Paramedic III Clinical

Credit Hours: 1 Contact Hours: 6 Lecture Hours: 0 Lab Hours: 6 Other Hours: 0

This course is a co-requisite to EMS222 Paramedic III. It consists of the clinical and field internship component relative to the course content and skills of EMS222 Paramedic III, including but not limited to, cardiac monitoring and ECG interpretation, advanced airway skills, and advanced trauma management.

### Pre-regs:

EMS221

And EMS222

Can be Taken Concurrently

And EMS223

### FST128 VOLUNTEER FIREFIGHTER

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0.5 Lab Hours: 1.5 Other Hours: 0

Pre-reqs:



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### **Health and Human Services**

Fire and EMS

### FST129 FIREFIGHTER 1

Credit Hours: 7 Contact Hours: 11 Lecture Hours: 5 Lab Hours: 6 Other Hours: 0

This course meets the requirement in the Ohio Revised Code regarding the certification of Firefighter level 1. Instruction includes topic areas taken from NFPA 1001 Fire Fighter 1. This course can be used as the first step in a two-step process in becoming a Firefighter trained to Firefighter level 2. Successful completion of this course is required to take the state certification test at Firefighter level 1. CTAG approved CTFF002, effective Spring 2018..

## Pre-reqs:

Or Test & Score: ACT Reading - 13

Or Test & Score: Accuplacer Reading - 040
Or Test & Score: Compass Reading - 058

Or Test & Score: NextGen Accuplacer Reading - 209

Or Test & Score: SAT Verbal - 390

Or CAL101 Can be Taken Concurrently

**IDS101** 

### FST224 LGL ASPECTS OF FIRE SERV

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

The focus of this course is on the legal rights, duties, liability concerns and responsibilities of the fire department while carrying out its function. Courtroom presentations, procedures and case studies will be included.

# Pre-reqs:

### FST228 FIREFIGHTER 1 & 2

Credit Hours: 11 Contact Hours: 17 Lecture Hours: 8 Lab Hours: 9 Other Hours: 0

This course meets the requirement in the Ohio Revised Code regarding the certification of a full-time paid Firefighter. Instruction includes topic areas taken from NFPA 1001 Firefighter 1 and 2. This is the highest level of Firefighter certification offered in the State of Ohio. Successful completion of this course is required to take the state certification test at Firefighter level 2. CTAG approved CTFF003, effective Spring 2018.

### **Pre-reqs:**

Or Test & Score: ACT Reading - 13

Or Test & Score: Accuplacer Reading - 040

Or Test & Score: Compass Reading - 058



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### **Health and Human Services**

### Fire and EMS

### FST228 FIREFIGHTER 1 & 2

Credit Hours: 11 Contact Hours: 17 Lecture Hours: 8 Lab Hours: 9 Other Hours: 0

This course meets the requirement in the Ohio Revised Code regarding the certification of a full-time paid Firefighter. Instruction includes topic areas taken from NFPA 1001 Firefighter 1 and 2. This is the highest level of Firefighter certification offered in the State of Ohio. Successful completion of this course is required to take the state certification test at Firefighter level 2. CTAG approved CTFF003, effective Spring 2018.

## Pre-reqs:

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 209

Or Test & Score: SAT Verbal - 390

Or CAL101 IDS101

# FST229 Firefighter 1 Transition

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 5 Lab Hours: 3 Other Hours: 0

This course meets the requirement in the Ohio Revised Code regarding the certification of a level 1 Firefighter. Instruction includes topic areas taken from NFPA 1001 Firefighter 1. This course can be used as the second step in a two-step process in becoming a Firefighter trained to the Firefighter level 1. Successful completion of this course is required to take the state certification test at Firefighter level 1. A student must have a volunteer level Firefighter certification to register for this course.

### Pre-regs:

Or Test & Score: ACT Reading - 13

Or Test & Score: Accuplacer Reading - 040

Or Test & Score: Compass Reading - 058

Or Test & Score: NextGen Accuplacer Reading - 209

Or Test & Score: SAT Verbal - 390

Or CAL101

FST128

And IDS101



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### **Health and Human Services**

Fire and EMS

## FST230 Firefighter 2 Transition

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

This course meets the requirement in the Ohio Revised Code regarding the certification of level 2 Firefighter. Instruction includes topic areas taken from NFPA 1001 Fire Fighter 2. This course can be used as the second step in a two-step process in becoming a Firefighter trained to the Firefighter level 2. Successful completion of this course is required to take the state certification test at Firefighter level 2. A student must have a Firefighter level 1 certification to register for this course.

## Pre-reqs:

Or FST128

FST129

And FST229

### **General Health**

### HTH121 INTRO TO HEALTH CAREERS

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The course is an introduction to the health care delivery system and the associated career opportunities within it. The course provides the student with the opportunity to explore career choices including educational, occupational, and professional requirements, employer expectations, job outlooks and related industry trends.

Pre-regs:

#### **Health Information**

# HIT101 Intro to Medical Billing

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course helps develop a broader understanding of professional billing careers by delving into the intricacies of Managed Care Organizations and the differences among them. The course covers the foundations of insurance, billing, coding, and reimbursement.

Pre-regs:



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### **Health and Human Services**

**Health Information** 

### HIT102 Medical Claims Methodology

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course focuses on the completion of medical claims forms and resolution of claim rejection using government billing guidelines for inpatient, outpatient, and physician services with a dedicated focus on Medicare, Medicaid, TRICARE, and workers compensation claim submission using the UB-04 or CMS-1500 billing forms. The student will understand the appeal process, Explanation of Benefits form, Electronic Remittance Advice form, Medicare Fee schedule, and revenue based hospital billing. The course requires the use of problem-solving and communication skills to answer questions and to write letters of appeal for denied claims. Students will be able to accurately complete claims forms without omission of data.

## Pre-reqs:

HIT101

#### HIT121 HTLH DATA MGT AND DELIVRY SYSM

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

Organization of health care delivery in the United States including providers and professionals; role of government and external agencies; accreditation and regulatory requirements and issues; structure and function of the American Health Information Management Association; the functions of an HIM department; emphasis on the content and structure of health records and documentation requirements; introduction to electronic health records and use of HIM application software. CTHIM001 effective Spring 2016

### Pre-regs:

**HIT123** 

Can be Taken Concurrently

# HIT122 ALTERNATVE HLTH RECS AND REGST

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Structure and function of non-acute healthcare facilities; accreditation and regulatory requirements; reimbursement and funding; content and structure of health records and documentation requirements; information management and the role of the HIM professional; overview of health registries with emphasis on cancer registry; students will spend observation time in a non-acute healthcare setting.

### Pre-regs:

HIT121



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### **Health and Human Services**

**Health Information** 

# HIT123 HLTHCRE LEGAL AND ETHICAL ISS

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Legal aspects of health information management practice; overview of judicial system and processes; importance of the health record as a confidential and legal document; practice in the release of information function; record retention and destruction of records are studied; current legal issues, compliance, privacy and security; professional and practice related ethical issues and laws are discussed. TAG approved Spring 2012 OHL021. CTAG approved - CTHIM002 effective Spring 2012.

### Pre-regs:

Or HIT121

Can be Taken Concurrently

**HIT230** 

### HIT124 CLINICAL CLASSIFICATNS SYS I

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

ICD coding systems and the professional standards for coding and reporting diagnostic inpatient and outpatient services and inpatient procedure services; coding characteristics, conventions and guidelines will be applied in identifying and accurately assigning codes; manual and electronic applications and coding references will be utilized in the coding process; study of various nomenclature and classification systems used in the healthcare field.

# Pre-reqs:

And BIO124

Can be Taken Concurrently

**HIT121** 

### HIT221 CLINICAL CLASSIFICATNS SYS II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

CPT/HCPCS coding system and its application in coding procedures; applying coding guidelines with accuracy and completeness using manual and computerized encoding systems; applying coding guidelines of previously learned coding principles; review of the outpatient prospective payment system.

# Pre-reqs:

BIO222

And HIT124



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### **Health and Human Services**

**Health Information** 

### HIT222 HLTHCRE STATSTICS AND RESEARCH

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Collection, organization, analysis and presentation of healthcare data; vital and public health statistics; computation and interpretation of healthcare statistics; data retrieval of clinical information from specialized databases; abstracting and maintaining data; importance of data quality and validity; reviewing Institutional Review Board processes.

Pre-regs:

**HIT124** 

And HIT224

Can be Taken Concurrently

### HIT223 HIM SUPERVSN:CONCPTS AND PRACT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Introduction to the concepts and practices of management and the role of the supervisor as it relates to the Health Information Management department; strategic planning and developing goals and objectives; importance of leadership and working in teams; orientation and training; monitoring resources and budgeting; study of practical problems in supervision.

# Pre-reqs:

**HIT224** 

## HIT224 QUALITY MGT IN HEALTHCARE

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Components of quality management in healthcare including quality assessment and improvement; utilization review; risk management and credentialing; use of quality improvement tools and techniques to assess, monitor, and report performance improvement activities; accreditation and regulatory requirements; outcome measures and patient safety.

**Pre-reqs:** 

HIT222

Can be Taken Concurrently



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### **Health and Human Services**

**Health Information** 

### HIT226 PROFESSIONAL PR I/SEM I

Credit Hours: 2 Contact Hours: 8 Lecture Hours: 1 Lab Hours: 7 Other Hours: 0

Supervised professional practice experience in a healthcare facility which is designed to allow students to apply HIM technical knowledge and skills learned in the classroom. Students complete additional assignments and meet in seminar to discuss the HIM profession and share practicum experiences.

Pre-regs:

## HIT227 PROFESSIONAL PR II/SEMII

Credit Hours: 2 Contact Hours: 8 Lecture Hours: 1 Lab Hours: 7 Other Hours: 0

Supervised professional practice experience in a healthcare facility which is designed to allow students to apply advanced HIM technical knowledge and skills learned in the classroom. Students complete additional assignments and meet in seminar to discuss issues and trends in the healthcare field which impact HIM practice; career management strategies and preparing for the national RHIT examination.

**Pre-reqs:** 

## HIT229 HLTH INFO SYSTEMS AND TECH

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Use of information technology in healthcare; computer concepts, communication and network technology; data quality and databases; data security; planning, evaluation and selection of information systems; HIM specialty systems, healthcare information systems; emerging technologies; emphasis on the electronic health record.

### Pre-regs:

Or CIS126

Or ECA180

HIT224

And ITD122



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### **Health and Human Services**

**Health Information** 

### HIT230 HLTH CARE DELIVERY IN THE US

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course focuses on the structure and process of health care in the United States. Topics include the historical development of the health care delivery system; types of facilities, services, agencies and personnel that constitute the system, critical policy and regulatory issues the system confronts; health care financing and reimbursement; and the role of government in health care.

Pre-regs:

### HIT231 VIRTUAL PROF. PRAC LAB

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

The on-campus coding lab allows the student to apply previously learned coding skills in a simulated workplace setting; under direction of coding experts in the field, the student will practice technical, research and auditing skills while building accuracy and speed; coding a variety of authentic paper, electronic and hybrid records, using electronic applications and work processes.

### **Pre-reqs:**

**HIT124** 

# HIT232 HLTHCRE REIMBURSEMENT METHODOL

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Healthcare reimbursement methodologies in health care settings; healthcare insurance plans and reimbursement systems; applying methodologies such as DRG's, APC's, RBRVS, etc.; the billing process as it relates to health information management; charge master, revenue cycle management; coding compliance and data quality. TAG approved OHL022 effective spring 2018

### Pre-regs:

HIT121



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### **Health and Human Services**

**Health Information** 

### HIT233 CLINICAL CLASSIFICTION SYS III

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 3 Other Hours: 0

Applying coding guidelines of previously learned coding principles through advanced coding practices with accuracy and completeness, using manual and computerized encoding systems; clinical coding and applying reimbursement methodologies; health information management; coding compliance and data quality.

### Pre-regs:

**HIT124** 

### **Human Services**

### CDC121 CHEM DEP: ASSESSMT AND TRTMT PL

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides specific content in orientation, screening, intake, assessment, treatment planning, and counseling with adults and adolescents with substance abuse/dependency disorders. Topics include: culturally sensitive practices in interviewing and assessment, diagnosis of substance abuse/dependency disorders, diverse models of treatment, case management, crisis intervention, and referral to appropriate levels of care. Other topics include discharge planning, relapse prevention, confidentiality, and roles of mutual self-help groups.

### Pre-regs:

SWK121

And SWK125

### CDC122 FUND OF CHEM DEP PRACT I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides students with an understanding of theories and practices in the field of chemical dependency. Students learn to integrate theories with practical application to serve persons with abuse and dependency diagnoses. They develop knowledge of the different frameworks for viewing chemical dependency and determine the models that develop from the frameworks and effective use of the models. They continue to develop knowledge of how different drugs impact individuals. Students learn to document interventions and outcomes.

### Pre-regs:

SWK125



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### **Health and Human Services**

**Human Services** 

### CDC221 CHEM DEPENDNCY AND THE FAM

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an overview of how chemical dependency impacts individual family members and the family unit. The course emphasizes how to define co-dependency and treatment of family members. Students explore developmental aspects of the family, family roles, and the ways in which addiction alters family functioning. Students are exposed to a variety of family treatment models as well as 12-Step/mutual self-help programs for family members. Students are required to attend one 12-Step meeting for families with addicted members and complete a related assignment.

### **Pre-reqs:**

SWK125

### CDC222 FUND OF CHEM DEP PRACT II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides students with advanced individual and group strategies to match the needs of clients. Students develop knowledge to evaluate the effectiveness of treatment based upon the client's progress towards mutually agreed upon goals. Stuents learn to develop a continuum of recovery plan in order to strengthen the client's potential for obtaining and maintaining a healthy lifestyle. Students develop knowledge and skills to work effectively with specific populations such as women, adolescents, and persons with co-occurring disorders.

### Pre-regs:

CDC122

# CDC223 CHEMICAL DEPENDENCY AND PREVNT

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course provides specific content in preventing and delaying the onset of alcohol and other addictive substance use, abuse, and dependency. Students learn prevention strategies and programs that help individuals, families, and communities promote safe and healthy behavior and lifestyles.

### **Pre-reqs:**

SWK125



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### **Health and Human Services**

**Human Services** 

### CDC224 CHEMICAL DEPENDENCY AND ETHICS

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course provides students with specific content in the legal and ethical issues pertaining to chemical dependency counseling. Students develop skills related to obligations and procedures that encourage ethical conduct. Students use The State of Ohio Code of Ethics for Chemical Dependency Counselors as a guide for professional behavior. Topics include: responsibility to comply with The Code of Ethics, ethical complaints, sanctions, and impairment of chemical dependency counselors. Students develop skills in recognizing and finding solutions for ethical dilemmas.

## Pre-reqs:

SWK125

## HJS250 Human Serv-Justice Prac/Sem

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 14 Other Hours: 0

The practicum component of this course is an individual placement of the student into a selected, relevant agency for an educationally supervised learning experience. Students will complete 210-220 hours at the placement site (220 hours required for the State of Ohio's Chemical Dependency Counselor Assistant certification, 210 hours required for all other majors). The required seminar component of this course is taught concurrently with the student's practical internship experience. The course will emphasize the integration of the practical learning experience with the student's academic coursework.

### **Pre-reqs:**

Or CDC222

**CJS221** 

Or GLS123

Or SWK130

### SWK121 INTRO TO SOCIAL WELFARE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an overview of the social welfare system spanning the last two hundred years. The dynamics of the various social, political, and philosophical ideas are examined as they have affected the social welfare system in the United States and social work as a profession. Students become familiar with the structure and function of current social service delivery systems. Students are required to volunteer for 15 hours in a social service setting and complete required documentation. Students are required to complete a background check during the semester in which the class is taken. TAG OSS030 approved Spring 2012.

## Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: ACT Composite - 22

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 2738



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### **Health and Human Services**

### **Human Services**

### SWK121 INTRO TO SOCIAL WELFARE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an overview of the social welfare system spanning the last two hundred years. The dynamics of the various social, political, and philosophical ideas are examined as they have affected the social welfare system in the United States and social work as a profession. Students become familiar with the structure and function of current social service delivery systems. Students are required to volunteer for 15 hours in a social service setting and complete required documentation. Students are required to complete a background check during the semester in which the class is taken. TAG OSS030 approved Spring 2012.

### Pre-regs:

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

### SWK124 METHODS IN PRACTICE I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Fosters development of focused and group interviewing skills and examines principles and practices relating to the entire case management process. Assessment and documentation cover a diverse range of professional human and social service settings, emphasizing compliance to professional and governmental standards.

## Pre-reqs:

SWK121

### **SWK125 SUBSTANCE ABUSE**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides students with an understanding of the impact of alcohol and drugs on American society and the role of the social service professional in educating, supporting and assisting clients with treatment options/resources. Topics include common stereotypes, myths, attitudes, interventions, treatment options and co-dependency. To successfully complete this course, students are required to attend two (2) 12-step meetings and complete the written assignments related to the meetings.

## Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: ACT Composite - 22

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3739



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### **Health and Human Services**

### **Human Services**

### SWK125 SUBSTANCE ABUSE

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides students with an understanding of the impact of alcohol and drugs on American society and the role of the social service professional in educating, supporting and assisting clients with treatment options/resources. Topics include common stereotypes, myths, attitudes, interventions, treatment options and co-dependency. To successfully complete this course, students are required to attend two (2) 12-step meetings and complete the written assignments related to the meetings.

## Pre-reqs:

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

### SWK126 HUMAN BEHAVIOR & SOC ENV

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides a comprehensive study of human behavior from a life span perspective. A systems approach is used with special attention to the role of the social service professional and the social service system.

# Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: ACT Composite - 22

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 2

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 



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### **Health and Human Services**

**Human Services** 

### SWK127 GROUP PROCESSES

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Group theory, structure and interaction are explored, with emphasis on personal insight into how the individual is affected by and influences the group process. Facilitation of team-building, group life stages and factors that impede/enhance group effectiveness are examined. An experiential format requires application of course principles to group activities.

Pre-regs:

### SWK130 METHODS IN PRACTICE II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on the assessment and documentation processes practiced in a diverse range of human and social services settings. Students will apply the theory and practice skills from Methods I through exercises using focused and group interviewing skills. Students will apply documentation skills using traditional written case notes and computer based formats.

### **Pre-reqs:**

SWK124

# SWK224 POVERTY IN THE US

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An examination of the historical, social, cultural, organizational and political factors related to poverty in the U.S. and their impact on social service programs. Social and personal dimensions of life and poverty in urban and rural areas will be explored.

# Pre-reqs:

And ENG124 SWK121



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### **Health and Human Services**

**Human Services** 

### SWK225 VICTIM AND CRISIS INTERVENTION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Course provides students with the basic understanding of victimization and theories and practice of intervention. Issues such as risk factors, legal issues, and intervention strategies of child abuse, spousal abuse, elder abuse and co-dependency will be introduced.

## Pre-reqs:

**ENG124** 

### SWK226 SOCIAL SERVICE LAW

Credit Hours: 3 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 0 Other Hours: 3

This course provides comparisons of the theoretical basis of social work and law. Basic terminology, principles, organization and procedures of law will be explored along with the relationships of the two professions-law and social work.

### **Pre-reqs:**

# SWK230 SOCIAL SERV FOR ELDERLY

Credit Hours: 3 Contact Hours: 13 Lecture Hours: 3 Lab Hours: 0 Other Hours: 10

This course provides information on national, state, and local social services that meet the needs of the elderly, their families, their communities and the institutions serving them and their families. Includes an examination of current societal policy and programs to meet the needs of the elderly and a basic orientation to the roles of various personnel in agencies. Students are required to complete 10 observation hours in settings that serve the elderly.

### Pre-regs:

**ENG124** 

## **Massage Therapy**



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### **Health and Human Services**

**Massage Therapy** 

### MAS121 MASSAGE THERAPY I

Credit Hours: 6 Contact Hours: 8 Lecture Hours: 4 Lab Hours: 4 Other Hours: 0

This course introduces students to Massage Therapy as a health care profession. Studied are the history and benefits of Massage Therapy and Massage procedures necessary to complete a full-body, therapeutic massage. Laboratory exercises permit students to practice the individual movements that make up a full-body massage.

Pre-regs:

### MAS122 MASSAGE THERAPY II

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 3 Other Hours: 0

This course is a continuation of Massage Therapy I. Students continue to practice procedures necessary to complete a full-body therapeutic massage with an introduction to clinical applications. Students perform massage in a supervised, clinical setting.

### **Pre-reqs:**

**MAS121** 

And MAS123

### MAS123 MASSAGE THERAPY A & P I

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Guided study of Anatomy and Physiology with an emphasis on massage therapy specific information. Origin, insertion, innervation and actions of up to two hundred muscles.

Pre-reqs:



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### **Health and Human Services**

**Massage Therapy** 

### MAS124 MASSAGE THERAPY A & P II

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

General study of Anatomy and Physiology with an emphasis on massage specific information. Eleven basic systems will be studied and correlated with specific disorders. These disorders will be discussed relative to how they would affect the work of a massage therapist. Treatment of the disorders will also be discussed

### Pre-regs:

And BIO122

Can be Taken Concurrently

**MAS123** 

### MAS223 MASSAGE THERAPY REVIEW

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course contains a review of human anatomy and physiology in preparation for the licensing exam for Massage Therapy as a Limited Medical Practice in the State of Ohio.

# Pre-reqs:

BIO122

Or BIO123

And MAS226

Can be Taken Concurrently

## MAS224 MASSAGE THERAPY III

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 3 Other Hours: 0

In this course the students continue to study the practice of Massage Therapy in both a general and clinical setting.

## Pre-reqs:

**MAS122** 



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### **Health and Human Services**

**Massage Therapy** 

### MAS225 MASSAGE THERAPY IV

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 3 Other Hours: 0

In this course students continue to study the practice of Massage Therapy in both a general and clinical setting.

## Pre-reqs:

MAS224

### MAS226 MASSAGE THERAPY V

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

In this course, students will examine various Massage Therapy Practices in the clinical setting. Massage procedures from various disciplines will be used in the study of treatment of systemic and musculoskeletal dysfunctions. This course also provides a licensing exam review for Massage Therapy as a Limited Medical Practice in the State of Ohio.

### **Pre-reqs:**

**MAS124** 

And MAS225

# MAS227 MASSAGE THERAPY PROCEDURES

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

Students will learn procedures to evaluate applicability of massage therapy to a variety of conditions, treatment of those conditions and the integrating of those skills into a medically oriented office. SOAP notes, record keeping for therapeutic applications and insurance billing will be taught. Ethical issues related to Massage Therapy will also be dicussed.

# Pre-reqs:

**MAS121** 



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### **Health and Human Services**

**Massage Therapy** 

## MAS228 PROFESSONAL PRACTCE & EVALUATN

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Application of massage therapy skills to course instructor in order to demonstrate minimally acceptable competency followed by a comprehensive evaluation of student performance by course instructor.

## Pre-reqs:

**MAS122** 

### MAS229 CLINIC OPERATIONS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course permits the student to apply learned skills to the clinical setting. Students will perform intake and assessment of clients based on subjective and objective information and physical assessment determining indications and contraindications for application of massage therapy. Students will design and implement treatment plans and document treatments in SOAP notes. Students will learn the skills necessary to manage a professional practice. Examination of the therapeutic relationship between the massage professional and the client will also be covered.

### **Pre-reqs:**

MAS225

## MAS231 Sports Massage

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course will present a unique focus on the use of basic sports massage, myofascial, neuromuscular and lymphatic facilitation to enhance an athlete's performance potential and treat common athletic injuries and conditions.

### Pre-regs:

**MAS121** 

## **Medical Assisting**



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### **Health and Human Services**

**Medical Assisting** 

### MAT100 Medical Assisting I

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

Medical Assisting I introduces the students to the profession of Medical Assisting and their responsibilities in the clinical area of the health care facility. Emphasis is placed on communication skills and the clinical techniques employed by the medical assistant. Pathophysiology and medications are presented as related procedures. Electronic Health Records will be implemented throughout the course.

Pre-reqs:

MAT101 Can be Taken Concurrently

### MAT101 Medical Office Procedures

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course is designed to prepare students for advanced medical office administrative procedures. Hands-on projects will allow students to experience appointment scheduling, telephone screening, written communication, billing and collection techniques, general banking, and accounts payable. Students will demonstrate the ability to organize their work, set priorities, and make decisions. Electronic health records and accounts receivable software are used in this course.CTAG approved, CTMMS001, effective summer 2017

Pre-regs:

MAT100 Can be Taken Concurrently

## MAT102 Medical Assisting II

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

Medical Assisting II focuses on performing and assisting with advanced clinical skills, EKG monitoring, and patient communication and education. Proper documentation of clinical procedures is covered using electronic medical records. Pathophysiology is presented as related to the procedures. Electronic Health Records will be implemented throughout the course.

Pre-regs:

**MAT121** 



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### **Health and Human Services**

**Medical Assisting** 

### MAT103 Medical Law and Ethics

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will focus on developing an understanding of ethics and various points of view on current ethical issues. Students will learn and discuss how legal issues are applied to the medical office.

### Pre-regs:

### MAT200 Med Lab Proc for Med Asstg

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course introduces the student to basic medical laboratory techniques used in the physician's office. Our lab is run in compliance with OSHA/CLIA standards. Laboratory tests taught represent all departments of a clinical lab and include spirometry and EKG. Electronic Health Records will be implemented throughout the course.

### **Pre-reqs:**

MAT102

## **MAT201** Insurance for Medical Asstg

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on developing knowledge of private, government and managed care insurances. Students will learn to code and complete electronic claim forms from CPT and ICD codebooks. Students will learn basic bookkeeping terminology, and post payments from Remittance Advice forms. This course covers risk management for reimbursement issues, following up on unpaid claims, and appealing disallowed claims. Electronic Health Records will be implemented in the course.

### Pre-regs:

**MAT102** 



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### **Health and Human Services**

**Medical Assisting** 

### MAT202 Pharmacolog/Medications

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

This course focuses on specific drug classifications including the action and usage with direct relationship to diseases and disorders; mathematical units of measure and dosage calculations; methods for preparing and administering oral, intramuscular, subcutaneous, and intradermal medications used in the physician's office; and managing the office drug inventory. Pathophysiology is presented as related to medications. Electronic Health Records will be implemented throughout this course.

## Pre-reqs:

**MAT102** 

## **MAT204** Medical Office Management

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on creating a Policy and Procedure Manual that includes management principles, policies and procedures, financial management, marketing the practice, human relations and safety and disaster plans.

### **Pre-reqs:**

**MAT200** 

And MAT201

And MAT203 Can be Taken Concurrently
And MAT205 Can be Taken Concurrently
And MAT206 Can be Taken Concurrently

### MAT205 Medical Assisting Seminar

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course will teach students how to prepare resumes, write cover letters and develop interview skills. Students will also prepare for the practicum.

### Pre-regs:

**MAT200** 

And MAT201

And MAT203 Can be Taken Concurrently

And MAT204 Can be Taken Concurrently

And MAT206 7, Can be Taken Concurrently



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### **Health and Human Services**

## **Medical Assisting**

### MAT206 Medical Assisting Practicum

Credit Hours: 2 Contact Hours: 14 Lecture Hours: 0 Lab Hours: 14 Other Hours: 0

The student is placed in a medical facility for 210 hours of practical application of all skills learned in the classroom and for additional instruction in the actual operation and management of the health care facility. The student works under the close observation and supervision of the physician and office staff.

### Pre-regs:

**MAT200** 

And MAT201

And MAT203 Can be Taken Concurrently
And MAT204 Can be Taken Concurrently
And MAT205 Can be Taken Concurrently

### MAT225 EMERGENCY MEDICAL PROCEDURES

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed to enable students to become certified in American Red Cross Professional Rescuer and Standard First Aid. In addition, supplementary information is presented covering manual resuscitation with Ambu bags, administering oxygen, crash carts, and incident reports. Study of the disease process is integrated with illnesses, injuries, and treatment covered in the course.

# Pre-reqs:

**MAT122** 

### MAT228 OPHTHALMOLOGY I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Focuses on anatomy and physiology of the eye; disease pathology, including systemic diseases with ocular manifestation; introduction to optics; pharmacology and microbiology; ocular emergencies and medical care; ophthalmic office procedures; medicolegal aspects of care; and preliminary workup for the ophthalmology patient.

### Pre-regs:

**MAT121** 



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### **Health and Human Services**

**Medical Assisting** 

### MAT229 OPHTHALMOLOGY II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Focuses on visual field testing; ocular motility; contact lenses, including insertion and removal instruction, care of, advantages and disadvantages of soft and rigid contacts; instrument maintenance and calibration; glaucoma and tonometry, including medical, surgical and laser treatment methods; and clinical optics. Forty hours of clinical externship are required in the ophthalmology office to apply ophthalmology skills, to receive credit for the ophthalmology course, and to receive a certificate of completion.

### Pre-regs:

**MAT228** 

### MAT231 REIMBURSEMENT FR HLTH CARE SER

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to introduce students to health care reimbursement. Content covers insurance terminology, legal considerations, third party guidelines, reimbursement methods and managed care reimbursement. It also includes an overview of national insurance plans and coding issues that affect reimbursement. There will also be emphasis on tracking and follow-up of processed claims.

### **Pre-reqs:**

# MAT234 INTRODUCTION TO PHLEBOTOMY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on phlebotomy and microcapillary puncture skills, collection/handling of specimens, quality assurance, infection control, safety and law and ethics. CTAG CTP001

### Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102 751



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### **Health and Human Services**

**Medical Assisting** 

### MAT235 PHLEBOTOMY TECH PRACTICUM

Credit Hours: 1 Contact Hours: 7 Lecture Hours: 0 Lab Hours: 7 Other Hours: 0

Students will have a supervised non-paid practicum at a health care facility which is designed to allow the student to gain experience in drawing blood on actual patients. The student works under the close observation and supervision of the clinical site supervisor; students will complete a daily journal while at their practicum.

## Pre-reqs:

MAT234

### **Medical Lab**

### MLT121 FUNDAMENTALS OF LAB TECH

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 3 Other Hours: 0

This course is designed to expose the student to basic skills and techniques used in the clinical laboratory. Topics to include: lab safety, lab units of measurement and calculations, preparation of solutions, care and use of lab equipment, pipetting and concepts of quality control. Phlebotomy, obtaining blood specimens by venipuncture and skin puncture is part of this course. TAG approved course- OHL008 effective Summer 2018

### Pre-regs:

### MLT122 URINALYSIS AND BODY FLUIDS

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

Course is structured to expose the student to the analysis of urine by macroscopic, chemical and microscopic techniques to determine the presence of soluble, insoluble substances and their relationship to disease. The class uses urine specimens, prepared slides and case histories. Course introduces topics of information, composition, and function of synovial, cerebrospinal, serous, amniotic, and seminal fluids. Course will describe the methods used in the routine analysis of these fluids, along with correlation of results with normal and disease states. TAG OHL010 approved Spring 2012.

# **Pre-reqs:**

**MLT124** 



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### **Health and Human Services**

**Medical Lab** 

### MLT123 HEMATOLOGY I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers basic hematological procedures. Topics include automated and manual blood cell counting techniques, red cell indices and morphology, reticulocyte counts, total eosinophil counts, platelet counts, erythrocyte sedimentation rates, normal white blood cell differentials and abnormal white blood cell differentials by using unknown blood samples, prepared abnormal slides, kodachromes and case histories. Also, reinforcement of venipuncture and finger stick techniques. Course will introduce the basic principles of hemostasis (coagulation) and the tests used to screen for disorders of hemostasis. TAG OHL009 approved Spring 2012. Must complete MLT123 & MLT124 to obtain TAG approval.

Pre-regs:

### MLT124 HEMATOLOGY II

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

Course is designed to reinforce hematological techniques previously learned by the student in Hematology I. Emphasis is placed on white blood cell differentials with blood cell morphology and associated disease states. Other topics, with clinical application, include: cerebral spinal fluid cell counts, sickle-cell preps, the leukemias, infectious mononucleosis and other blood dyscrasias by prepared microscopic slide collection, kodachromes and case histories, and coagulation studies. TAG OHL009 approved Spring 2012. Must complete MLT123 & MLT124 to obtain TAG approval.

### Pre-regs:

MLT123

## MLT125 IMMUNOHEMATOLOGY

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

This course introduces the concepts of basic genetics of red cell antigens. The student will study the significance of the blood cell antigens and antibodies. The course includes ABO and Rh typing, crossmatching procedures, antibody detection and identification. A study of hemolytic disease of the newborn, its treatment and detection is included. Other topics in the course are composition and use of the specific blood component, overview of donor requirements.

### **Pre-reqs:**

**MLT126** 



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### **Health and Human Services**

### **Medical Lab**

### MLT126 IMMUNOLOGY/SEROLOGY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The course introduces the immune system and the concepts of the immunologic response in health and in disease, as well as how serologic techniques are used in the clinical laboratory testing. Topics include the cells and components involved in the immune response, which will include the immunoglobulins and complement system. Abnormal immune responses such hypersensitivity and autoimmunity and their clinical significance will be discussed. Common serologic techniques which utilize antigen-antibody reactions for diagnostic testing are presented. The laboratory activities will include dilutions, agglutination, and other antigen-antibody serologic techniques.

### Pre-regs:

### MLT222 CLINICAL CHEMISTRY

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

The course is designed to introduce the student to the principles of laboratory instrumentation, clinical chemistry procedures and quality control concepts. The course covers renal and liver function; carbohydrate, lipid and protein metabolism; hormones; electrolytes and mineral balance; blood gases; and clinical enzymes and therapeutic drug monitoring. The class uses lecture, case studies and laboratory procedures.

### **Pre-reqs:**

BIO122

Or BIO123

And CHM122

And MLT121

And MLT122

### MLT223 CLINICAL MICROBIOLOGY

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 3 Lab Hours: 6 Other Hours: 0

The student will study the morphology and identification of microorganisms commonly found in humans, their relationship to disease states and their susceptibility to antibiotics. Topics include: basic structures and functions of bacteria; culture, growth and development requirements; classification of microbes; infectious disease; control of disease; laboratory safety; unknowns for identification from ATCC (American Type Culture Collection) seeded cultures; videotapes and kodachromes. Other topics include mycology, parasitology and virology.

# Pre-reqs:

BIO221

And MLT126



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### **Health and Human Services**

**Medical Lab** 

#### MLT225 MLT APPLICATIONS

Credit Hours: 3 Contact Hours: 9 Lecture Hours: 0 Lab Hours: 9 Other Hours: 0

Under supervision of MLT Program faculty, the student has the opportunity to practice the manual procedures from the previous MLT courses. In preparation for the affiliated hospital experience, the student will organize his/her daily workload to maximize productivity and attain competence in the manual methods. Emphasis is placed on manual hematology, normal and abnormal blood smears, routine urinalysis, body fluid cell counts and cytospins, routine serology, blood banking using tube and gel techniques.

### Pre-regs:

And MLT125 And MLT222

**MLT223** 

#### MLT226 MLT DIRECTED PRACTICE

Credit Hours: 6 Contact Hours: 30 Lecture Hours: 0 Lab Hours: 30 Other Hours: 0

Students are assigned to an affiliated clinical laboratory and have the opportunity to perform clinical laboratory testing using modern equipment, under the supervision of a practicing laboratorian. Students rotate through the main laboratory departments which include: hematology and hemostasis, blood bank, microbiology, chemistry. Experiences include operating and maintaining sophisticated laboratory analyzers, evaluation of test results, refining phlebotomy skills, interaction with the clinical laboratory staff, with other health care professionals, and with the patient.

### Pre-regs:

MLT225 Can be Taken Concurrently
And MLT227 Can be Taken Concurrently

#### MLT227 MLT SEMINAR

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Topics include professional development, creating resumes and cover letters, discussions of experiences at the clinical sites, discussions of problems that occur in the workplace and problem resolution. The topics of the certification process, professional ethics in the laboratory, and other related topics are included.

### Pre-reqs:

**MLT223** 

And MLT225 Can be Taken Concurrently
And MLT226 Can be Taken Concurrently

### **Nursing**



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### **Health and Human Services**

**Nursing** 

### HTD201 HLTH INDEP STUDY

Credit Hours: 1 Contact Hours: 10 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Health Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Health Technology will determine course content, meeting schedules and credit hours.

Pre-regs:

#### HTD202 HLTH INDEP STUDY

Credit Hours: 2 Contact Hours: 20 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Health Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Health Technology will determine course content, meeting schedules and credit hours.

**Pre-reqs:** 

## HTD203 HLTH INDEP STUDY

Credit Hours: 3 Contact Hours: 30 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Health Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Health Technology will determine course content, meeting schedules and credit hours.

Pre-regs:



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### **Health and Human Services**

**Nursing** 

### HTD204 HLTH INDEP STUDY

Credit Hours: 4 Contact Hours: 40 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

An independent study may be arranged through the Health Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Health Technology will determine course content, meeting schedules and credit hours.

### Pre-regs:

### **NSG100** Fund Concepts Lifespan Lecture

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an overview of fundamental concepts important to the practice of nursing including those related to patient-centered nursing, the healthcare environment and professional nursing practice. Includes care of patients with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lab and clinical co-requisites and successfully complete all components. CTADNUR002 effective spring 2018

#### **Pre-reqs:**

And NSG100C Can be Taken Concurrently
NSG100L Can be Taken Concurrently
And NSG101 Can be Taken Concurrently

### **NSG100C Fund Concept Lifespan Clinical**

Credit Hours: 2 Contact Hours: 6 Lecture Hours: 0 Lab Hours: 6 Other Hours: 0

This course provides an overview of fundamental concepts important to the practice of nursing including those related to patient-centered nursing, the healthcare environment and professional nursing practice. Includes care of patients with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lab and lecture co-requisites and successfully complete all components.

## Pre-reqs:

NSG100 Can be Taken Concurrently
And NSG100L Can be Taken Concurrently
And NSG101 Can be Taken Concurrently



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### **Health and Human Services**

**Nursing** 

### **NSG100L Fund Concepts Lifespan Lab**

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

This course provides an overview of fundamental concepts important to the practice of nursing including those related to patient-centered nursing, the healthcare environment and professional nursing practice. Includes care of patients with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lecture and clinical co-requisites and successfully complete all components.

## Pre-regs:

NSG100 Can be Taken Concurrently
And NSG100C Can be Taken Concurrently
And NSG101 Can be Taken Concurrently

### **NSG101** Clinical Reason Curr Practice

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course introduces the learner to clinical reasoning used in nursing. In this course the student learns to use critical thinking skills and strategies that underscore the thinking represented in the nursing process as well as dealing with aspects of the healthcare system for safe practice in the current healthcare environment. This course forms the basis for the thinking processes applied throughout all nursing courses.

### Pre-regs:

NSG100	Can be Taken Concurrently
And NSG100C	Can be Taken Concurrently
And NSG100L	Can be Taken Concurrently
Or NSG122	Can be Taken Concurrently
And NSG122C	Can be Taken Concurrently
And NSG122L	Can be Taken Concurrently
Or NSG123	Can be Taken Concurrently
And NSG123C	Can be Taken Concurrently
And NSG123L	Can be Taken Concurrently



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### **Health and Human Services**

**Nursing** 

### **NSG121** Concept Nur Care Adult Patient

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course builds on fundamentals for the acquisition and application of concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lab and clinical co-requisites and successfully complete all components. CTADNUR002 effective spring 2018

### Pre-reqs:

And BIO121

Or BIO123

And NSG100

And NSG100C

And NSG100L

And NSG101

And NSG121C Can be Taken Concurrently

NSG121L Can be Taken Concurrently

### **NSG121C Concept Nur Care Adult Clinic**

Credit Hours: 1.5 Contact Hours: 4.5 Lecture Hours: 0 Lab Hours: 4.5 Other Hours: 0

This course builds on fundamentals for the acquisition and application of concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lab and lecture co-requisites and successfully complete all components.

### Pre-regs:

And BIO121

Or BIO123

And NSG100

And NSG100C

And NSG100L

And NSG101

NSG121 Can be Taken Concurrently

And NSG121L Can be Taken Concurrently



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### **Health and Human Services**

**Nursing** 

#### **NSG121L** Concept Nur Adult Patient Lab

Credit Hours: 0.5 Contact Hours: 1.5 Lecture Hours: 0 Lab Hours: 1.5 Other Hours: 0

This course builds on fundamentals for the acquisition and application of concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lecture and clinical co-requisites and successfully complete all components.

### Pre-reqs:

And BIO121

Or BIO123

And NSG100

And NSG100C

And NSG100L

And NSG101

NSG121 Can be Taken Concurrently
And NSG121C Can be Taken Concurrently

## **NSG122** Transition Paramedic Lecture

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

The course builds on the existing knowledge of the paramedic and provides an overview of fundamental concepts important to the practice of nursing including those related to patient-centered nursing, the healthcare environment, and professional nursing practice. It also provides the acquisition and concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lab and clinical co-requisites and successfully complete all components.

### Pre-regs:

And NSG101 Can be Taken Concurrently
And NSG122C Can be Taken Concurrently
NSG122L Can be Taken Concurrently

#### NSG122C Trans for Paramedic Clinical

Credit Hours: 1.5 Contact Hours: 4.5 Lecture Hours: 0 Lab Hours: 4.5 Other Hours: 0

The course builds on the existing knowledge of the paramedic and provides an overview of fundamental concepts important to the practice of nursing including those related to patient-centered nursing, the healthcare environment, and professional nursing practice. It also provides the acquisition and concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lecture and clinical co-requisites and successfully complete all components.



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### **Health and Human Services**

**Nursing** 

#### NSG122C Trans for Paramedic Clinical

Credit Hours: 1.5 Contact Hours: 4.5 Lecture Hours: 0 Lab Hours: 4.5 Other Hours: 0

The course builds on the existing knowledge of the paramedic and provides an overview of fundamental concepts important to the practice of nursing including those related to patient-centered nursing, the healthcare environment, and professional nursing practice. It also provides the acquisition and concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lecture and clinical co-requisites and successfully complete all components.

### Pre-reqs:

And NSG101 Can be Taken Concurrently
NSG122 Can be Taken Concurrently
And NSG122L Can be Taken Concurrently

#### NSG122L Transition for Paramedic Lab

Credit Hours: 0.5 Contact Hours: 1.5 Lecture Hours: 0 Lab Hours: 1.5 Other Hours: 0

This course builds on fundamentals for the acquisition and application of concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lecture and clinical co-requisites and successfully complete all components.

## Pre-reqs:

And NSG101 Can be Taken Concurrently
NSG122 Can be Taken Concurrently
And NSG122C Can be Taken Concurrently

### NSG123 Transition for LPN Lecture

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

The course builds on the existing knowledge of the LPN with a focus on the transition from LPN practice to RN practice. It also provides the acquisition of additional concepts and application of concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lab and clinical co-requisites and successfully complete all components.

### Pre-regs:

And NSG101 Can be Taken Concurrently
And NSG123C Can be Taken Concurrently
NSG123L Can be Taken Concurrently



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### **Health and Human Services**

**Nursing** 

#### **NSG123C** Transitiion for LPN Clinical

Credit Hours: 1.5 Contact Hours: 4.5 Lecture Hours: 0 Lab Hours: 4.5 Other Hours: 0

The course builds on the existing knowledge of the LPN with a focus on the transition from LPN practice to RN practice. It also provides the acquisition of additional concepts and application of concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lab and lecture co-requisites and successfully complete all components.

### Pre-reqs:

And NSG101 Can be Taken Concurrently
NSG123 Can be Taken Concurrently
And NSG123L Can be Taken Concurrently

#### **NSG123L** Transition for LPN Lab

Credit Hours: 0.5 Contact Hours: 1.5 Lecture Hours: 0 Lab Hours: 1.5 Other Hours: 0

The course builds on the existing knowledge of the LPN with a focus on the transition from LPN practice to RN practice. It also provides the acquisition of additional concepts and application of concepts of nursing applied to the care of patients experiencing uncomplicated conditions with a focus on wellness and health promotion. Application of knowledge and skills occurs in the nursing laboratories and clinical settings. Students must register for the lecture and clinical co-requisites and successfully complete all components.

### Pre-regs:

And NSG101 Can be Taken Concurrently
NSG123 Can be Taken Concurrently
And NSG123C Can be Taken Concurrently

#### **NSG141** Concept Patient Mental Lecture

Credit Hours: 1.5 Contact Hours: 1.5 Lecture Hours: 1.5 Lab Hours: 0 Other Hours: 0

This course builds on the first semester courses to further refine the concepts of nursing practice with application to the care of patients with conditions related to mental health issues. Application of knowledge and skills occurs in the nursing laboratories and a variety of mental health facilities. Students must register for the lab and clinical co-requisites and successfully complete all components.

## Pre-reqs:

And BIO121

Or BIO123

And NSG100

And NSG100C

And NSG100L



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### **Health and Human Services**

**Nursing** 

#### **NSG141** Concept Patient Mental Lecture

Credit Hours: 1.5 Contact Hours: 1.5 Lecture Hours: 1.5 Lab Hours: 0 Other Hours: 0

This course builds on the first semester courses to further refine the concepts of nursing practice with application to the care of patients with conditions related to mental health issues. Application of knowledge and skills occurs in the nursing laboratories and a variety of mental health facilities. Students must register for the lab and clinical co-requisites and successfully complete all components.

### Pre-reqs:

Or NSG122

And NSG122C

And NSG122L

Or NSG123

And NSG123C

And NSG123L

And NSG141C Can be Taken Concurrently

NSG141L Can be Taken Concurrently

## **NSG141C Concept Patient Mental Clinic**

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

This course builds on the first semester courses to further refine the concepts of nursing practice with application to the care of patients with conditions related to mental health issues. Application of knowledge and skills occurs in the nursing laboratories and a variety of mental health facilities. Students must register for the lab and lecture co-requisites and successfully complete all components.

### Pre-regs:

And BIO121

Or BIO123

And NSG100

And NSG100C

And NSG100L

Or NSG122

And NSG122C

And NSG122L

Or NSG123

And NSG123C

And NSG123L

NSG141



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### **Health and Human Services**

**Nursing** 

#### **NSG141C** Concept Patient Mental Clinic

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

This course builds on the first semester courses to further refine the concepts of nursing practice with application to the care of patients with conditions related to mental health issues. Application of knowledge and skills occurs in the nursing laboratories and a variety of mental health facilities. Students must register for the lab and lecture co-requisites and successfully complete all components.

### Pre-reqs:

And NSG141L

Can be Taken Concurrently

## **NSG141L** Concept Patient Mental Lab

Credit Hours: 0.5 Contact Hours: 1.5 Lecture Hours: 0 Lab Hours: 1.5 Other Hours: 0

This course builds on the first semester courses to further refine the concepts of nursing practice with application to the care of patients with conditions related to mental health issues. Application of knowledge and skills occurs in the nursing laboratories and a variety of mental health facilities. Students must register for the lecture and clinical co-requisites and successfully complete all components.

### Pre-regs:

And BIO121

Or BIO123

And NSG100

And NSG100C

And NSG100L

Or NSG122

And NSG122C

And NSG122L

Or NSG123

And NSG123C

And NSG123L

NSG141 Can be Taken Concurrently

And NSG141C Can be Taken Concurrently



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### **Health and Human Services**

**Nursing** 

#### NSG221 Concept Repro-Devel Family Lec

Credit Hours: 2.5 Contact Hours: 2.5 Lecture Hours: 2.5 Lab Hours: 0 Other Hours: 0

This course builds on the previous nursing courses to further refine and apply the concepts of nursing practice in the care of the reproducing and developing family. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings in maternal/newborn and pediatric environments. Students must register for the lab and clinical corequisites and successfully complete all components.

### Pre-regs:

And NSG141

And NSG141C

And NSG141L

And NSG221C Can be Taken Concurrently

NSG221L Can be Taken Concurrently

## NSG221C Concept Repro-Devel Fam Clinic

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

This course builds on the previous nursing courses to further refine and apply the concepts of nursing practice in the care of the reproducing and developing family. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings in maternal/newborn and pediatric environments. Students must register for the lab and lecture corequisites and successfully complete all components.

## Pre-reqs:

And NSG141

And NSG141C

And NSG141L

NSG221 Can be Taken Concurrently

And NSG221L Can be Taken Concurrently

## NSG221L Concept Repro-Devel Fam Lab

Credit Hours: 0.5 Contact Hours: 1.5 Lecture Hours: 0 Lab Hours: 1.5 Other Hours: 0

This course builds on the previous nursing courses to further refine and apply the concepts of nursing practice in the care of the reproducing and developing family. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings in maternal/newborn and pediatric environments. Students must register for the lecture and clinical corequisites and successfully complete all components.

### Pre-regs:

And NSG141



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### **Health and Human Services**

**Nursing** 

#### NSG221L Concept Repro-Devel Fam Lab

Credit Hours: 0.5 Contact Hours: 1.5 Lecture Hours: 0 Lab Hours: 1.5 Other Hours: 0

This course builds on the previous nursing courses to further refine and apply the concepts of nursing practice in the care of the reproducing and developing family. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings in maternal/newborn and pediatric environments. Students must register for the lecture and clinical corequisites and successfully complete all components.

### Pre-regs:

And NSG141C

And NSG141L

And NSG221C

NSG221

Can be Taken Concurrently

Can be Taken Concurrently

### NSG241 Concept Patient Stable/Unsta

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course further refines the concepts of nursing practice with application to the care of adult patients with stable and unstable acute conditions. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lab and clinical co-requisites and successfully complete all components.

## Pre-reqs:

And BIO122

And NSG141

And NSG141C

And NSG141L

And NSG241C Can be Taken Concurrently
NSG241L Can be Taken Concurrently

## NSG241C Concept Patient Stable/Un Clin

Credit Hours: 1.5 Contact Hours: 4.5 Lecture Hours: 0 Lab Hours: 4.5 Other Hours: 0

This course further refines the concepts of nursing practice with application to the care of adult patients with stable and unstable acute conditions. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lab and lecture co-requisites and successfully complete all components.

### Pre-regs:

And BIO122



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### **Health and Human Services**

**Nursing** 

#### NSG241C Concept Patient Stable/Un Clin

Credit Hours: 1.5 Contact Hours: 4.5 Lecture Hours: 0 Lab Hours: 4.5 Other Hours: 0

This course further refines the concepts of nursing practice with application to the care of adult patients with stable and unstable acute conditions. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lab and lecture co-requisites and successfully complete all components.

### Pre-reqs:

And NSG141

And NSG141C

And NSG141L

NSG241

Can be Taken Concurrently

And NSG241L

Can be Taken Concurrently

## NSG241L Concept Patient Stable/Un Lab

Credit Hours: 0.5 Contact Hours: 1.5 Lecture Hours: 0 Lab Hours: 1.5 Other Hours: 0

This course further refines the concepts of nursing practice with application to the care of adult patients with stable and unstable acute conditions. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lecture and clinical co-requisites and successfully complete all components.

## Pre-reqs:

And BIO122

And NSG141

And NSG141C

And NSG141L

NSG241 Can be Taken Concurrently

And NSG241C Can be Taken Concurrently

## NSG261 Concept Nurs Prac Lifespan

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0

This course builds on all previous nursing courses to further refine and apply the concepts of nursing practice to the care of patients with complex conditions. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lab and clinical co-requisites and successfully complete all components.



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### **Health and Human Services**

**Nursing** 

### NSG261 Concept Nurs Prac Lifespan

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0

This course builds on all previous nursing courses to further refine and apply the concepts of nursing practice to the care of patients with complex conditions. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lab and clinical co-requisites and successfully complete all components.

### Pre-regs:

And BIO221

And NSG221

And NSG221C

And NSG221L

And NSG241

And NSG241C

And NSG241L

And NSG261C Can be Taken Concurrently

NSG261L Can be Taken Concurrently

And PSY123

### NSG261C Concpt Nurs Prac Lifespan clin

Credit Hours: 3 Contact Hours: 9 Lecture Hours: 0 Lab Hours: 9 Other Hours: 0

This course builds on all previous nursing courses to further refine and apply the concepts of nursing practice to the care of patients with complex conditions. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lab and lecture co-requisites and successfully complete all components.

### Pre-regs:

And BIO221

And NSG221

And NSG221C

And NSG221L

And NSG241

And NSG241C

And NSG241L

NSG261 Can be Taken Concurrently

And NSG261L Can be Taken Concurrently

And PSY123



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### **Health and Human Services**

**Nursing** 

#### NSG261L Concept Nurs Prac Lifespan lab

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

This course builds on all previous nursing courses to further refine and apply the concepts of nursing practice to the care of patients with complex conditions. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings. Students must register for the lecture and clinical co-requisites and successfully complete all components.

### Pre-regs:

And BIO221

And NSG221

And NSG221C

And NSG221L

And NSG241

And NSG241C

And NSG241L

NSG261 Can be Taken Concurrently

And NSG261C Can be Taken Concurrently

And PSY123

#### NUR121 FUND CONCEPTS IN NURSING

Credit Hours: 6 Contact Hours: 12 Lecture Hours: 3 Lab Hours: 9 Other Hours: 0

This course introduces concepts basic to nursing with an emphasis on the nursing process and assessment skills. Technical nursing skills to maintain, restore, and/or promote basic health care are presented. The health care needs of the older adult are examined. Content also includes an explanation of the historical perspectives of nursing as it impacts on the present associate degree nurse as a member within the profession of nursing and the health care delivery system. Select legal, ethical and social issues affecting nursing are addressed. CTAG CTADNUR002 approved Spring 2012.

### Pre-regs:

#### STN100 State Tested Nurse Aide

Credit Hours: 3 Contact Hours: 6 Lecture Hours: 1.5 Lab Hours: 4.5 Other Hours: 0

This course is designed to prepare the student for STNA Testing. There are two parts to the nurse aide competency test a multiple-choice written/oral test and a skills test. The completer of this course should understand the standards related to nurse aide knowledge and skills and can competently and safely perform the job of an entry-level nurse aide. Application of knowledge occurs in the laboratory and clinical setting.



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### **Health and Human Services**

**Nursing** 

#### STN100 State Tested Nurse Aide

Credit Hours: 3 Contact Hours: 6 Lecture Hours: 1.5 Lab Hours: 4.5 Other Hours: 0

This course is designed to prepare the student for STNA Testing. There are two parts to the nurse aide competency test a multiple-choice written/oral test and a skills test. The completer of this course should understand the standards related to nurse aide knowledge and skills and can competently and safely perform the job of an entry-level nurse aide. Application of knowledge occurs in the laboratory and clinical setting.

Pre-reqs:

### STN101 Certified Patient Care Tech

Credit Hours: 3 Contact Hours: 6 Lecture Hours: 1.5 Lab Hours: 4.5 Other Hours: 0

This course is designed to prepare the student for CPCT certification exam. The completer of this course should understand the standards related to nurse aide knowledge and skills. The completer should also understand the standards related to phlebotomy and EKG monitoring, as well as perform the skills related to those standards.

**Pre-reqs:** 

## **Occupational Therapy**

### OTA121 FOUNDATIONS OF OT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Explains the profession of occupational therapy, the roles and functions of occupational therapy personnel, the areas of occupational performances and the theoretical basis of using goal-directed activities. Observation in local occupational therapy clinics is scheduled.

Pre-reqs:



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### **Health and Human Services**

**Occupational Therapy** 

### OTA122 THERAPEUTIC MEDIA

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

Skill development in selected activities, screening and assessments with the emphasis on psychosocial, pediatric and geriatric performance use of equipment, individual and small group teaching, analysis of activities, use of O.T. Frames of Reference and O.T. Frameworks.

### Pre-regs:

#### OTA123 PSYCHOSOCIAL ASPECTS OF OT

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Introduction to various health-promoting and inhibiting factors as they relate to occupational therapy practice. Provide training related to one-on-one and group treatment for individuals with psychiatric and/or social impairments. Emphasis on utilizing therapeutic use of self, adapted activities, and the environment as the primary means of promoting psychological well-being and enhancing occupational performance.

#### **Pre-reqs:**

**OTA121** 

And OTA122

And PSY121

And PSY221

Can be Taken Concurrently

#### OTA124 PSYCHOSOCIAL CLINICAL EX

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 2 Other Hours: 1

Skill development in group processes and didactic interactions. Supervised work experience and interactions with persons who have psychological dysfunctions.

## Pre-reqs:

**OTA121** 

And OTA122



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### **Health and Human Services**

## **Occupational Therapy**

### OTA221 DEVELOP ASPECTS IN OT

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Identification and description of handicapping conditions existing from birth or through adulthood. Instruction in occupational therapy theories and treatment for individuals with developmental and learning impairments. Emphasis on therapeutic techniques to enhance occupational performance from birth through adulthood.

### Pre-regs:

Or BIO122

And BIO123

OTA123

And OTA124

And OTA223 Can be Taken Concurrently
And PTA226 Can be Taken Concurrently

### OTA222 DEV CLINICAL EXPERIENCE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 2 Other Hours: 1

Training of transfer techniques, range of motion, inhibition and facilitating techniques. Training in the use of self-maintenance skills and assistive devices. Supervised work experience in a school, hospital or workshop servicing clients with developmental disabilities.

### Pre-regs:

Or BIO122

BIO123

And OTA123

And OTA124

And OTA223 Can be Taken Concurrently

And PTA226 Can be Taken Concurrently



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### **Health and Human Services**

**Occupational Therapy** 

### OTA223 LIFE SPAN DEVELOPMENT

Credit Hours: 5 Contact Hours: 5 Lecture Hours: 5 Lab Hours: 0 Other Hours: 0

The study of human growth and development from birth through old age. Focus is on a multi-theoretical approach defining organic and environmental determinants of illness vs. wellness. Students explore therapeutic treatment implications related to application of developmental principles in working with various patient populations.

## Pre-reqs:

**ENG124** 

#### OTA224 OT IN PHYSICAL DYSFUN

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

Instruction in occupational therapy theories, assessment and screening and treatment for individuals and physical impairments and high risk medical conditions. Emphasis on use of therapeutic activities to restore, maintain and/or facilitate physical well-being and independence.

#### **Pre-reqs:**

And BIO124

Can be Taken Concurrently

OTA221

And OTA222

## OTA225 PHYS DYSFUNTION CLINIC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 2 Other Hours: 1

Skill development in selected activities with emphasis on work simplification, fabrication of orthotics and routine evaluation procedures. Supervised work experience in a hospital or clinic setting treating individuals with neurological, orthopedic and other medical conditions.

## Pre-reqs:

And OTA221

OTA222



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### **Health and Human Services**

**Occupational Therapy** 

### OTA226 OT ASST SEMINAR

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Examination and discussion of the professional roles and responsibilities of the occupational therapy assistant. Includes exploration of traditional and non-traditional roles, certification, conflict resolution, collaboration of OTR and COTA, ethics and legal aspects of treatment.

## Pre-reqs:

OTA224

And OTA225

### OTA227 CLINICAL APPLICATIONS I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 0 Other Hours: 3

Supervised field work placement designed to provide in-depth experience in and responsibility for delivery of services to patients/clients. Emphasizes the application of academically-acquired knowledge leading to the performance level expected of an entry-level occupational therapy assistant.

## Pre-reqs:

OTA224

And OTA225

### OTA228 CLINICAL APPLICATIONS II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 0 Other Hours: 3

Supervised field work placement designed to provide in-depth experience and responsibility for delivery of services to patients/clients. Emphasizes the application of academically-acquired knowledge leading to the performance level expected of an entry-level occupational therapy assistant.

## Pre-reqs:

OTA224

And OTA225

## **Ophthalmology**



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### **Health and Human Services**

**Ophthalmology** 

## **OPH100** Intro to Ophthalmology Prof

Credit Hours: 3 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course introduces the roles and responsibilities of ophthalmic medical professionals, with major emphasis on patient care and office administrative skills. A review of microbiology and medical terminology as it relates to the field is provided. Students are also introduced to medical ethics, safety, and community health eye care.

Pre-regs:

## **OPH101** Ophthalmic Procedures I

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course covers the basic clinical skills of ophthalmology including: vital signs, visual acuity, external eye examination, visual fields, papillary assessment, lensometry, keratometry, tonometry, and other supplementary tests. Students will be introduced to the use and maintenance of clinical equipment and supplies.

Pre-regs:

## OPH102 Ocular Anatomy & Physiology

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course focuses on the normal anatomy of the eye and visual pathway, as well as the physiology of ocular movements and vision.

Pre-reqs:



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### **Health and Human Services**

**Ophthalmology** 

## OPH103 Ophthalmic Procedures II

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course focuses on clinical optics and basic ophthalmic procedures such as biometry, low vision, refractometry, retinoscopy, basic ophthalmic imaging, contact lenses, spectacle skills, and surgical assisting.

## Pre-reqs:

OPH102

## **OPH104** Ophthalmology Practicum I

Credit Hours: 3 Contact Hours: 21 Lecture Hours: 0 Lab Hours: 21 Other Hours: 0

The student is placed in a medical facility for 315 hours of practical application of all basic ophthalmology skills learned in the classroom/lab and for additional instruction in the actual operation and management of the health care facility. This is a non-paid practicum. The student works under the close observation and supervision of the physician and office staff. Students will also participate in a seminar sharing clinical experiences.

### Pre-regs:

OPH103

Can be Taken Concurrently

## **OPH105** Ocular Diseases

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course focuses on the common ocular disorders and reviews systemic diseases relating to ocular conditions.

Pre-reqs:



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### **Health and Human Services**

**Ophthalmology** 

## **OPH106** Ocular Pharmacology

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course focuses on ocular pharmacology including delivery, indications, contraindications, potential side effects, drug interactions, and patient education of common agents used in the diagnosis and treatment of eye disorders.

### Pre-reqs:

## OPH107 Ophthalmology Practicum II

Credit Hours: 2 Contact Hours: 14 Lecture Hours: 0 Lab Hours: 14 Other Hours: 0

The student is placed in a medical facility for 210 hours of practical application of basic and intermediate level ophthalmology skills learned in the classroom/lab. This is a non-paid practicum. The student works under the close observation and supervision of the physician and office staff. Students will also participate in a seminar sharing clinical experiences.

### Pre-regs:

OPH104

## OPH200 Ophthalmic Procedures III

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course focuses on intermediate and basic advanced ophthalmic skills including pupillary assessment, lensometry, keratometry, retinoscopy, tonometry, visual assessment, visual fields, ocular motility, spectacle skills, electrophysiology and advanced supplementary tests.

### Pre-regs:

OPH103



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### **Health and Human Services**

**Ophthalmology** 

### OPH201 Ophthalmology Practicum III

Credit Hours: 2 Contact Hours: 14 Lecture Hours: 0 Lab Hours: 14 Other Hours: 0

The student is placed in a medical facility for 210 hours of practical application of intermediate and basic advanced level ophthalmology skills learned in the classroom/lab. This is a non-paid practicum. The student works under the close observation and supervision of the physician and office staff. Students will also participate in a seminar sharing clinical experiences.

## Pre-reqs:

**OPH107** 

## OPH202 Ophthalmic Procedures IV

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 2 Lab Hours: 4 Other Hours: 0

This course focuses on intermediate and basic advanced skills in ophthalmologic imaging, surgical assisting and special diagnostic testing.

### Pre-regs:

OPH200

## OPH203 Ophthalmology Practicum IV

Credit Hours: 3 Contact Hours: 21 Lecture Hours: 0 Lab Hours: 21 Other Hours: 0

The student is placed in a medical facility for 315 hours of practical application of intermediate and basic advanced level ophthalmology skills learned in the classroom/lab. This is a non-paid practicum. The student works under the close observation and supervision of the physician and office staff. Students will also participate in a seminar sharing clinical experiences.

### Pre-regs:

OPH201

## **Physical Therapy**



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### **Health and Human Services**

## **Physical Therapy**

### **EXS110** Anatomy of Exercise

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Introduction to the structure and function of the skeletal, neuromuscular, and cardiopulmonary/vascular systems as they apply to exercise and rehabilitation. Students must register for the lab co-requisite and successfully complete both lecture and lab components.

### Pre-reqs:

BIO 122 Can be Taken Concurrently
Or BIO 123 Can be Taken Concurrently
And EXS110L Can be Taken Concurrently

### **EXS110L** Anatomy of Exercise Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

Laboratory applications related to the structure and function of the skeletal, neuromuscular, and cardiopulmonary/vascular systems as they apply to exercise and rehabilitation. Students must register for the lecture co-requisite and successfully complete both lecture and lab components.

## Pre-reqs:

EXS110 Can be Taken Concurrently

### **EXS120** Exercise Applications

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Reinforces and expands principles, applications, and theories of exercise science and its role in prevention, wellness and/or rehabilitation. Includes instruction in and rationale for selected testing procedures and exercise applications. Students must register for the lab co-requisite and successfully complete both lecture and lab components.

## Pre-reqs:

**EXS110** 

And EXS120L Can be Taken Concurrently



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### **Health and Human Services**

**Physical Therapy** 

#### **EXS120L** Exercise Applications Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

Laboratory procedures related to principles, applications, and theories of exercise science and its role in prevention, wellness and/or rehabilitation. Includes instruction in and rationale for selected testing procedures and exercise applications. Students must register for the lecture co-requisite and successfully complete both lecture and lab components.

Pre-reqs:

EXS120 Can be Taken Concurrently

## PTA118 Principles of Patient Care

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Introduction to the field of health care, basic standards of health care management, medical terminology and abbreviations, and patient care skills. Instruction includes data collection and interventions for individuals having selected conditions, vital signs, infection control procedures, body mechanics, patient positioning and draping, transfer techniques, gait training using selected assistive devices, and other selected patient care topics. Physical Therapist Assistant students must register for the lab co-requisite and successfully complete both lecture and lab components.

Pre-regs:

## PTA118L Principles of Patient Care Lab

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 0 Lab Hours: 4 Other Hours: 0

Laboratory applications related to the field of health care, basic standards of health care management, medical terminology and abbreviations, and basic patient care skills. The student will practice data collection and interventions for individuals having selected conditions and treatments, vital signs, infection control procedures, body mechanics, patient positioning and draping, transfer techniques, gait training using selected assistive devices, and other selected patient care topics. Physical Therapist Assistant students must register for the lecture co-requisite and successfully complete both lecture and lab components.

**Pre-regs:** 



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### **Health and Human Services**

**Physical Therapy** 

#### PTA119 Professional Values & Ethics

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

An overview of the history of physical therapy and its professional association. Topics include: foundational values and ethics of the profession, roles and responsibilities of the PT and the PTA within the patient care model, program expectations regarding student professionalism in the classroom and during clinical performance, and issues relating to patient confidentiality, diversity, and respect. An introduction to clinical documentation will be presented.

Pre-reqs:

### PTA120 Introduction to Orthopedics

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Review structure and function of articulations. Introduce biomechanical principles related to human motion and locomotion, including articulations, gait analysis, regional, and neuromuscular relationships. Students must register for the lab co-requisite and successfully complete both lecture and lab components.

#### **Pre-reqs:**

**PHY101** 

And PTA120L Can be Taken Concurrently
Or PTA221 Can be Taken Concurrently

### PTA120L Intro to Orthopedics Lab

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

Laboratory applications related to structure and function of articulations. Introduce biomechanical principles related to human motion and locomotion, including articulations, gait analysis, regional, and neuromuscular relationships. Students must register for the lecture co-requisite and successfully complete both lecture and lab components.

Pre-reqs:

PTA120 Can be Taken Concurrently



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### **Health and Human Services**

## **Physical Therapy**

## PTA121 FUNDAMENTALS OF PT

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

The student is introduced to the field of physical therapy, basic standards of practice, current professional issues and interactions with patients and other health professionals. The student is instructed in monitoring vital signs, infection control procedures, principles of body mechanics, patient positioning and draping, transfer techniques, range of motion, girth measurements, therapeutic massage and selected conditions and treatments. Laboratory activities, written assignments, and competencies are required components of this course.

## Pre-regs:

#### PTA122 MUSCULOSKELTAL ANATOMY

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

An in-depth study of the musculoskeletal system including: anatomical terms, bone and bony landmark locations; articulations: skeletal muscle locations and actions; the actions and planes of movement available at the joints; and the types of muscle contractions which can occur at the synovial joints. A basic study of skin is presented. Laboratory activities, cadaver studies and practicals are a required component of this course.

#### **Pre-reqs:**

Or BIO122 Can be Taken Concurrently
BIO123 Can be Taken Concurrently

### PTA123 KINESIOLOGY

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

The study of human anatomy emphasizing the biomechanics, motion and peripheral innervations of the musculoskeletal system as a basis for understanding normal and abnormal function and the development of exercise and gait programs. The fundamentals of posture, muscle physiology, muscle function, gait analysis and strength will be covered. Students will review muscle locations and actions, as well as locations and functions of selected ligaments, the intrinsic muscles of the hands and feet, and the innervations of the muscles of the extremities. Laboratory activities, cadaver studies and practicals are a required component of this course.

### Pre-reqs:

**PHY101** 

And PTA122

And PTA221 Can be Taken Concurrently



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### **Health and Human Services**

**Physical Therapy** 

### PTA124 MST PROCEDURES FOR PTA

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

The student will learn data collecting and documentation for therapeutic measurement skills including goniometry and manual muscle testing.

## Pre-reqs:

PTA123

And PTA221

### PTA125 PROF CLIN PRACT FOR PTA

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course will focus on development of the professional clinical skills including critical thinking and clinical decision-making. The students will apply didactic concepts learned in prior coursework to clinical situations.

## Pre-reqs:

PTA119

And PTA138

Can be Taken Concurrently

### PTA136 Neuro Found for Rehab

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Introduction to basic structure and function of central, peripheral and autonomic nervous systems as they relate to rehabilitation, normal neurologic developmental sequence, and milestones. Presents selected impairments, functional limitations, disabilities, data collection and therapeutic interventions related to neurologic pathologies.

## Pre-reqs:

BIO122

Or BIO123



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### **Health and Human Services**

**Physical Therapy** 

#### PTA138 Data Collection

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Introduction to data collection and documentation skills associated with patient care. Topics include, but are not limited to: medical history taking for common medical concerns, arousal, mentation, and cognition, anthropometric measurements, vital signs, thoracoabdominal movement and breathing patterns, integumentary integrity and sensation, goniometry, joint play, muscle testing and tone, posture, alignment and balance, gait, and environmental analysis. Students must register for the lab co-requisite and successfully complete both lecture and lab components.

### Pre-reqs:

And PTA125 And PTA138L

PTA221

Can be Taken Concurrently
Can be Taken Concurrently

#### PTA138L Data Collection Lab

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 0 Lab Hours: 4 Other Hours: 0

Laboratory applications related to data collection and documentation skills. Topics include, but are not limited to: medical history taking for common medical concerns, arousal, mentation, and cognition, anthropometric measurements, vital signs, thoracoabdominal movement and breathing patterns, integumentary integrity and sensation, goniometry, joint play, muscle testing and tone, posture, alignment and balance, gait, and environmental analysis. Students must register for the lecture corequisite and successfully complete both lecture and lab components.

### Pre-regs:

**PTA138** 

Can be Taken Concurrently

### PTA221 PTA PROCEDURES I

Credit Hours: 5 Contact Hours: 9 Lecture Hours: 3 Lab Hours: 6 Other Hours: 0

This course will present to the students a comprehensive study of pain and its management; a study of the impairments, disabilities and functional limitations associated with burns, tissue repair, and pulmonary conditions; principles of physical agents/modalities usage including rationale, effects, adverse effects, contraindications, precautions, application, and documentation. Laboratory activities, written assignments, and competencies are required components of this course. Student may perform selected therapeutic interventions with patients under direct PT/PTA supervision as part of the laboratory components of this course.

## Pre-reqs:

**PTA118** 

And PTA120

Can be Taken Concurrently



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### **Health and Human Services**

**Physical Therapy** 

### PTA222 PTA PROCEDURES II

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

This course will present to the students the impairments, disabilities, functional limitations, and interventions of selected musculoskeletal, rhematological and cardiovascular conditions including spinal disorders and amputation. Also included, will be an overview of CNS anatomy, physiology, and pathology, sensory integration, motor development and motor control. Laboratory activities, written assignments and competencies, are required components of this course. Students will perform selected therapeutic interventions with patients under direct PT/PTA supervision as part of laboratory component of this course.

### Pre-reqs:

And BIO124

PTA124

And PTA125

And PTA228

Can be Taken Concurrently
Can be Taken Concurrently

And PTA229

### PTA223 PTA PROCEDURES III

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course will present to the students the impairments, disabilities, functional limitations, and interventions of selected neuromuscular disorders and will include, but not limited to spinal cord injuries, traumatic brain injuries, strokes, and developmental disabilities. Laboratory activities, written assignments, and competencies are required components of this course. Students will perform selected therapeutic interventions under direct PT/PTA supervision as part of the laboratory component of this course.

#### Pre-regs:

**PTA224** 

And PTA225

## PTA224 PTA PROCEDURES II ORTHO

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

This course presents the impairments, disabilities, functional limitations, data collection and therapeutic interventions of selected orthopedic, integumentary, rheumatological and cardiovascular conditions. Also included is study of the anatomy, physiology and pathology of the selected conditions. Laboratory activities, written assignments and competencies are required components of this course. Students will perform selected data collection and interventions as a part of this course.

## Pre-regs:

BIO124

And EXS120

And PTA120



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### **Health and Human Services**

**Physical Therapy** 

### PTA225 PTA PROCEDURES II NEURO

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

This course presents the impairments, disabilities, functional limitations, data collection and therapeutic interventions of selected cardiovascular, integumentary, neurological, developmental, and traumatic conditions. Also included is study of the anatomy, physiology and pathology of the selected conditions. Laboratory activities, written assignments and competencies are required components of this course. Students will perform selected data collection and interventions as a part of this course.

### Pre-reqs:

BIO124

And PTA136

And PTA248

Can be Taken Concurrently

#### PTA226 FUNCTIONAL ANATOMY

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

An in-depth study of the musculoskeletal system with particular attention paid to the movement of joints, motions of the spine and extremities, as well as prime movers involved in these motions. Application of the knowledge of human anatomy with emphasis on biomechanics and functions relative to the neuromusculo-skeletal system. Motion of the human body is studied as a basis for therapeutic exercise and function.

### Pre-regs:

Or BIO122

BIO123

#### PTA227 DIRECTED PRACTICE III

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 0 Other Hours: 3

Selected clinical experience in various physical therapy settings under direct supervision. Grading: Credit/Fail

Pre-reqs:



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### **Health and Human Services**

**Physical Therapy** 

### PTA228 SEMINAR I

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Presentation of topics related to clinical practice to include ethics and professional development.

## Pre-reqs:

PTA125

And PTA247

Can be Taken Concurrently

### PTA229 DIRECTED PRACTICE I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 0 Other Hours: 3

Clinical experience in various physical therapy departments under direct supervision. Grading: Credit/Fail

## Pre-reqs:

PTA124

And PTA125

And PTA224 Can be Taken Concurrently
And PTA225 Can be Taken Concurrently
And PTA228 Can be Taken Concurrently

## PTA230 SEMINAR II

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Presentation of diverse clinical issues and approaches to patient management.

### Pre-regs:

PTA228

And PTA257 Can be Taken Concurrently
And PTA267 Can be Taken Concurrently



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### **Health and Human Services**

**Physical Therapy** 

### PTA231 DIRECTED PRACTICE II

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 0 Other Hours: 2

Clinical experience in various physical therapy departments under direct supervision. Grading: Credit/Fail

## Pre-reqs:

PTA229

## PTA247 Clinical Experience I

Credit Hours: 2 Contact Hours: 14 Lecture Hours: 0 Lab Hours: 14 Other Hours: 0

Clinical experience in various physical therapy departments under direct supervision.

### Pre-regs:

PTA125

And PTA228

Can be Taken Concurrently

## PTA248 Multisystems

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

Introduction to impairments, functional limitations, disabilities, data collection and therapeutic interventions related to selected integumentary, cardiovascular, lymphatic, endocrine, gastrointestinal, and urological conditions. Management of complex medical conditions affecting patients in physical therapy will be presented. Students must register for the lab corequisite and successfully complete both lecture and lab components.

## Pre-reqs:

PTA138

And PTA225 Can be Taken Concurrently
And PTA248L Can be Taken Concurrently



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## **Health and Human Services**

**Physical Therapy** 

## PTA248L Multisystems Lab

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

therape urologi	utic interventions cal conditions. M		ntegumentary, card ex medical condition	diovascular, lyn ons affecting pat	nphatic, endocrin tients in physical	e, gastrointestinal, an therapy will be prese	
	Pre-reqs:						
	PTA248		Ca	Can be Taken Concurrently			
PTA257 Clinical		ience II  Contact Hours: 14 rious physical therap					
	Pre-reqs:			1 m 1 c	.1		
	And PTA230 PTA247		C.	an be Taken Coi	ıcurrentiy		
PTA267	Clinical Experi	ience III Contact Hours: 14	Lacture Hours: 0	Lah Hours: 14	Other Hours: 0		
Clinical		rious physical therap					
	Pre-reqs:						

## **Practical Nursing**



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### **Health and Human Services**

## **Practical Nursing**

### PNC100 Nursing 1

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 1 Other Hours: 1

This course focuses on the beginning knowledge and skills that form the foundation of basic nursing care. Some of the topics included are hygiene, vital signs, medical asepsis, health and wellness, communications, the basic principles of nutrition as it relates to wellness and the promotion of health, developmental changes as they occur from young adulthood to senescence, and gender identity/sexual orientation. The student applies classroom theory of basic nursing skills to both the practice and clinical laboratory settings. This course also presents ethical, legal, and social issues that will affect the practical nurse during his/her nursing career. A study of nursing history and current health care trends is presented to give a sense of heritage and future.

### Pre-reqs:

BIO 101 Can be Taken Concurrently
And PNC101 Can be Taken Concurrently

## PNC101 Pharmacology 1

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is an introduction into pharmacology. Topics include the history of drugs, the legal aspects of medication administration, pharmacodynamics, math calculations, intravenous drip rates, and the basic principles for preparing and administering medications.

## Pre-reqs:

And BIO101 Can be Taken Concurrently
PNC100 Can be Taken Concurrently

### PNC120 Nursing 2

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 2 Other Hours: 2

This course builds on basic nursing knowledge. Topics such as immunity; catheterizations and irrigations; death and dying; and the care of the HIV, surgical, cancer, and mental health patient are discussed using the nursing process to identify appropriate nursing interventions. In addition, this course prepares the student to be certified in intra-venous (IV) therapy covering topics such as understanding the rules and laws governing infusion practices for LPN's in Ohio, initiating and maintaining an IV infusion, complication of IV infusions, and considerations for the geriatric population. Skills necessary to implement identified nursing interventions will be taught in the practice laboratory. Clinical experience will be offered in adult acute care, long-term care, and rehabilitation facilities.

## Pre-reqs:

And BIO101 Can be Taken Concurrently

PNC100

And PNC101

And PNC121 Can be Taken Concurrently



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#### **Health and Human Services**

## **Practical Nursing**

#### PNC121 Pharmacology 2

Credit Hours: 3 Contact Hours: 3.5 Lecture Hours: 2.5 Lab Hours: 1 Other Hours: 0

This course focuses on the role of the practical nurse in the preparation and administration of medications. The classifications of medications will be taught focusing on the pathophysiology, nursing implications, and patient/family teaching. Issues related to self-medication will also be discussed. During the practice laboratory, the student will have the opportunity to prepare and administer medications using the theory base that has been presented.

Pre-reqs:

And BIO101 Can be Taken Concurrently

PNC100

And PNC101

And PNC120 Can be Taken Concurrently

## PNC130 Nursing 3

Credit Hours: 9 Contact Hours: 12 Lecture Hours: 6 Lab Hours: 2 Other Hours: 4

This course focuses on nursing care of patients with disorders of the cardiovascular, respiratory, neurologic, endocrine, gastrointestinal, and the genitourinary systems. Each system is studied through the collection of data using the nursing process to observe patient behavior, plan patient care, identify nursing interventions, and evaluate patient outcomes.

## Pre-reqs:

**PNC120** 

And PNC121

## PNC140 Nursing 4

Credit Hours: 8 Contact Hours: 12 Lecture Hours: 4 Lab Hours: 2 Other Hours: 6

This course focuses on the nursing care of patients with disorders of the musculoskeletal, sensory, and reproductive systems as well as the nursing care of individuals during pregnancy, labor, delivery, and postpartum. Nursing care of newborn and pediatric patients with a focus on growth and development from infancy through adolescence is discussed. Common pediatric conditions and the impact of change/crisis on the family's ability to adapt are included in the clinical component. This course also prepares the student for the NCLEX State Board of Nursing test.

#### Pre-regs:

**PNC130** 

## Respiratory Therapy/MIST



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#### **Health and Human Services**

## Respiratory Therapy/MIST

#### MIS123 INTRO TO SURGICAL TERM/MCROBIO

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides the student with an exposure to terms specific to the field of central service/medical instrument sterilization with special emphasis on surgical terminology and microbiology pertinent to the surgical arena. Emphasis is placed on understanding the relation-ships between medical products and instruments, how they are used, and the factors in disease transmission that compromise surgical patient outcomes.

### Pre-reqs:

**MIS124** 

#### MIS124 MEDICAL INSTR STERILIZATION I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 0 Lab Hours: 0 Other Hours: 0

This course presents the student with an overview of the technical functions of the field of central service processing/medical instrument sterilization and its application to hospital/surgical center environments. Topics include orientation to the work environment, decontamination procedures, infection control, disinfection, surgical instrumentation and standards of practice.

#### Pre-regs:

BIO101

# MIS125 MIS I/DIRECTED PRACTICE

Credit Hours: 2 Contact Hours: 10 Lecture Hours: 0 Lab Hours: 10 Other Hours: 0

This course provides the student the technical competency skills in identification of surgical implementation, standards of practice, decontamination procedures, infection control, and disinfection. This directed practice orients the student to the work environment in the central service processing area of the hospital/surgery center.

# Pre-reqs:

And BIO125

MIS124

Can be Taken Concurrently

Can be Taken Concurrently



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#### **Health and Human Services**

## Respiratory Therapy/MIST

#### MIS126 MEDICAL INSTR STERILIZATION II

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course presents the student with an exposure to the technical functions of the field of central service processing/medical instrument sterilization with emphasis on surgical instrumentation, assembly of instruments, sterilization procedures, standards of practice, operations, inventory, distribution and product standardization.

#### Pre-regs:

**MIS124** 

## MIS127 MIS II/DIRECTED PRACTICE

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 0 Lab Hours: 15 Other Hours: 0

This course provides the student the technical competency skills in sterilization procedures, assembly of instruments, standards of practice, operations, inventory, distribution and product standardization. Students gain technical skills through exposure to the central service processing area in a hospital/surgery center.

#### **Pre-reqs:**

**MIS125** 

And MIS126

Can be Taken Concurrently

#### MIS222 Medical Inst Sterilization III

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course reinforces the technical functions of the field of central service processing/medical instrument sterilization with the review of decontamination, assembly, sterilization, distribution and storage. Other topics include credentialing exam preparation and job readiness skills.

### **Pre-reqs:**

MIS123

And MIS126



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#### **Health and Human Services**

## Respiratory Therapy/MIST

#### MIS223 MIS III/Directed Practice

Credit Hours: 1 Contact Hours: 5 Lecture Hours: 0 Lab Hours: 5 Other Hours: 0

This course reinforces the technical competency skills in decontamination, assembly, sterilization, distribution and storage. Students will demonstrate competency by working more independently in the central service processing area in a hospital/surgery center.

#### Pre-regs:

**MIS127** 

And MIS222

Can be Taken Concurrently

## RCT121 Intro to Respiratory Care

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An introduction to the field of respiratory care: the job functions of the respiratory therapy profession, orientation to charting techniques, patient positioning, vital sign and physical assessment, aerosolized delivery of medication, incentive spirometry, basic life support techniques, cleaning and sterilization, isolation techniques, and other procedures required for entry into the hospital setting. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lab co-requisite and successfully complete both components.

# Pre-reqs:

BIO122

Or BIO123

And RCT121L

Can be Taken Concurrently

# **RCT121L** Intro to Respiratory Care Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

An introduction to the field of respiratory care: the job functions of the respiratory therapy profession, orientation to charting techniques, patient positioning, vital sign and physical assessment, aerosolized delivery of medication, incentive spirometry, basic life support techniques, cleaning and sterilization, isolation techniques, and other procedures required for entry into the hospital setting. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lecture co-requisite and successfully complete both components.

## Pre-reqs:



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#### **Health and Human Services**

**Respiratory Therapy/MIST** 

#### RCT122 MED GAS ADMINISTRATION

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An introduction to the basics of oxygen administration, aerosol and humidification therapy. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lab co-requisite and successfully complete both components.

Pre-regs:

#### **RCT122L Medical Gas Administration Lab**

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

An introduction to the basics of oxygen administration, aerosol and humidification therapy. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lecture co-requisite and successfully complete both components.

**Pre-reqs:** 

# RCT123 AIRWAY MANAGEMENT PROCED

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An introduction to the therapeutic and diagnostic modalities used in the treatment and assessment of pulmonary diseases to include hyperinflation techniques, bronchial hygiene, artificial airways, airway clearance techniques including suctioning and tracheostomy care, and arterial punctures. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lab co-requisite and successfully complete both components.

Pre-reqs:

**RCT124** 



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#### **Health and Human Services**

### Respiratory Therapy/MIST

#### RCT123L Airway Mgmt Procedures Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

An introduction to the therapeutic and diagnostic modalities used in the treatment and assessment of pulmonary diseases to include hyperinflation techniques, bronchial hygiene, artificial airways, airway clearance techniques including suctioning and tracheostomy care, and arterial punctures. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lecture co-requisite and successfully complete both components.

Pre-regs:

#### **RCT124** Resp Care Pharmacology

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An orientation to pharmacology including drug classifications, dosage calculations, indications, side effects, and administration. Emphasis is placed on those drugs used in the treatment and management of cardiopulmonary disease including: bronchodilators, mucolytics, steroids, anti-infective agents, smoking cessation aids, central nervous system and cardiac medications and other miscellaneous drugs.

#### **Pre-reqs:**

Or BIO122

BIO123

And RCT121

And RCT122

And RCT123

Can be Taken Concurrently

#### RCT125 Practicum I Seminar

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The seminar component of Practicum I consists of an orientation to diagnostic testing that will be encountered in the clinical setting when assessing patients. Students will receive instruction and participate in discussion of clinical application of the following topics: chest x-ray interpretation; special radiologic tests; laboratory testing; arterial blood gas interpretation; and quality control of arterial blood gas sampling.

Pre-reqs:



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#### **Health and Human Services**

Respiratory Therapy/MIST

#### **RCT125C** Practicum I Clinical

Credit Hours: 2 Contact Hours: 14 Lecture Hours: 0 Lab Hours: 14 Other Hours: 0

Clinical experiences provided include an introduction to basic patient care skills such as: medical asepsis, vital sign monitoring, physical assessment, charting, patient chart review, isolation, and resuscitation. Also included are experiences in medical gas administration, aerosol therapy, and hyperinflation and bronchial hygiene techniques.

#### Pre-regs:

**RCT124** 

#### RCT126 CRITICAL CARE

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An introduction of the principles related to the care of the critically ill patient with an emphasis on mechanical ventilation. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lab co-requisite and successfully complete both components.

#### **Pre-reqs:**

RCT123

# **RCT126L Critical Care Laboratory**

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

An introduction of the principles related to the care of the critically ill patient with an emphasis on mechanical ventilation. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lecture corequisite and successfully complete both components.

# Pre-reqs:



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#### **Health and Human Services**

## Respiratory Therapy/MIST

#### RCT128 Practicum II Seminar

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The seminar component of Practicum II consists of an orientation to conducting, interpreting, and quality control of pulmonary function testing. Students will perform pulmonary function testing and participate in discussion of clinical application and interpretation of data.

#### Pre-regs:

#### **RCT128C** Practicum II Clinical

Credit Hours: 1 Contact Hours: 7 Lecture Hours: 0 Lab Hours: 7 Other Hours: 0

Clinical experiences are provided in the area of airway management, aerosol therapy, hyperinflation and bronchial hygiene techniques, arterial punctures, and tracheobronchial suctioning.

#### **Pre-reqs:**

**RCT123** 

And RCT125C

#### RCT129 RESPIRATORY DISEASES

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A review of diseases affecting the patients that are encountered by the respiratory care practitioner. Included is the physical assessment and evaluation of the patient with respiratory complications.

### **Pre-reqs:**

**RCT124** 



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#### **Health and Human Services**

# **Respiratory Therapy/MIST**

#### RCT220 CARDIOPULMONARY A & P

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course introduces students to the anatomy and physiology of the respiratory and cardiovascular systems. It also includes the application of cardiopulmonary physiology related to the diagnosis, monitoring, and care of the critically ill respiratory patient. Application topics include advanced mechanical ventilator management, capnography, patient positioning, metabolic measurements, advanced arterial blood gas interpretation, and cardiopulmonary calculations.

#### Pre-regs:

And BIO122

Or BIO123

**RCT126** 

#### RCT223 PATIENT ASSMNST AND MONITOR

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Exposure to various procedures and techniques associated with the monitoring and evaluation of the patient with cardiopulmonary disease, with particular focus on hemodynamic monitoring of the critically ill patient.

## Pre-reqs:

RCT220

#### RCT224 Practicum III Seminar

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The seminar component of Practicum III consists of an introduction to cardiac testing and monitoring seen in the clinical setting. Students will learn to interpret and perform EKG's.

Pre-reqs:



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#### **Health and Human Services**

# **Respiratory Therapy/MIST**

#### RCT224C Practicum III Clinical

Credit Hours: 2 Contact Hours: 14 Lecture Hours: 0 Lab Hours: 14 Other Hours: 0

Clinical experiences provided include an exposure to invasive and non-invasive ventilatory management and other procedures related to the care of the critically ill patient. Experiences are also provided in specialty care areas of respiratory care.

#### Pre-regs:

**RCT126** 

And RCT128C

#### RCT225 Practicum IV Seminar

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course prepares students for the work field. Clinical experiences provided include management of the critically ill adult, pediatric, and newborn patient. Students also participate in a clinical simulation capstone experience and advanced cardiac life support certification courses. In the computer laboratory component, students will participate in computer based practice sessions in preparation for the NBRC credentialing examinations required to become a registered respiratory therapist. The seminar component consists of a guest speaker series covering specialty topics in healthcare. Students must register for the lab and clinical co-requisites and successfully complete all components.

## Pre-regs:

#### RCT225C Practicum IV Clinical

Credit Hours: 3 Contact Hours: 21 Lecture Hours: 0 Lab Hours: 21 Other Hours: 0

This course prepares students for the respiratory care work field. Clinical experiences provided include management of the critically ill adult, pediatric, and newborn patient. Students also participate in a clinical simulation capstone experience and advanced cardiac life support certification courses. In the computer laboratory component, students will participate in computer based practice sessions in preparation for the NBRC credentialing examinations required to become a registered respiratory therapist. The seminar component consists of a guest speaker series covering specialty topics in healthcare. Students must register for the lab and seminar co-requisites and successfully complete all components.

### Pre-reqs:

RCT224C

And RCT226

And RCT227



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#### **Health and Human Services**

# **Respiratory Therapy/MIST**

#### RCT225L Practicum IV Laboratory

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

This course prepares students for the respiratory care work field. Clinical experiences provided include management of the critically ill adult, pediatric, and newborn patient. Students also participate in a clinical simulation capstone experience and advanced cardiac life support certification courses. In the computer laboratory component, students will participate in computer based practice sessions in preparation for the NBRC credentialing examinations required to become a registered respiratory therapist. The seminar component consists of a guest speaker series covering specialty topics in healthcare. Students must register for the clinical and seminar co-requisites and successfully complete all components.

Pre-regs:

## RCT226 Adv Resp Care Procedures Lab

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

An orientation and practice of advanced respiratory care procedures such as intubation, noninvasive ventilation, assisting with special procedures, and respiratory care specialty areas.

#### **Pre-reqs:**

**RCT126** 

# RCT227 Neonatal/Peds Respiratory Care

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

An introduction to the respiratory care principles and practices related to the care of neonatal and pediatric patients, including a review of neonatal and pediatric cardiopulmonary diseases, mechanical ventilation, special procedures, bronchopulmonary hygiene techniques, and assessment and monitoring. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lab co-requisite and successfully complete both components.

#### **Pre-reqs:**

RCT126



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#### **Health and Human Services**

# **Respiratory Therapy/MIST**

#### RCT227L Neonatal/Peds Resp Care Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

An introduction to the respiratory care principles and practices related to the care of neonatal and pediatric patients, including a review of neonatal and pediatric cardiopulmonary diseases, mechanical ventilation, special procedures, bronchopulmonary hygiene techniques, and assessment and monitoring. Application of knowledge and skills occurs in the respiratory care laboratory. Students must register for the lecture co-requisite and successfully complete both components.

## Pre-regs:

# Surgical

# **SUA100** Intro to Surgical Assisting

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an introduction to the surgical assisting profession. The course will provide an overview of ethical and moral responsibilities, all hazards preparation, surgical microbiology, and the role of the Surgical Assistant related to anesthesia as well as postoperative management.

#### Pre-regs:

SUA102 Can be Taken Concurrently
And SUA102L Can be Taken Concurrently

# SUA102 Princ of Surgical Assist

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explores the areas of wound healing, perioperative management and perioperative skills. Students will learn skills related to evaluation and assessment of the surgical patient prior to and during surgery. Techniques of knot tying, wound dressings, positioning, skin preparation, and operative site exposure will be discussed and practiced. Patient management of acute trauma will also be addressed. Application of knowledge and skills occurs in the surgical assisting laboratory. Students must register for the laboratory co-requisite and successfully complete both components.

### Pre-regs:

SUA100 Can be Taken Concurrently
And SUA102L Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

### **SUA102L** Princ of Surgical Assist Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course explores the areas of wound healing, perioperative management and perioperative skills. Students will learn skills related to evaluation and assessment of the surgical patient prior to and during surgery. Techniques of knot tying, wound dressings, positioning, skin preparation, and operative site exposure will be discussed and practiced. Patient management of acute trauma will also be addressed. Application of knowledge and skills occurs in the surgical assisting laboratory. Students must register for the lecture co-requisite and successfully complete both components.

Pre-reqs:

SUA102 Can be Taken Concurrently

## SUA104 Adv Surg Anat & Phys

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on regional anatomy with surgical anatomy being the critical component. This course also explores an in-depth advanced approach to anatomical knowledge which is applied to surgical diagnosis and procedures.

#### **Pre-reqs:**

## **SUA106** Surgical Assisting Procedures

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explores surgical specialties including general, obstetric gynecology, genitourinary, ophthalmic, otorhinolaryngologic, orthopedic, plastic/reconstructive, neurosurgery, cardiothoracic, and peripheral vascular. An indepth focus of all surgeries and the assistants' role will be covered. Application of knowledge and skills occurs in the surgical assisting laboratory. Students must register for the laboratory co-requisite and successfully complete both components.

#### **Pre-reqs:**

**SUA102** 

And SUA102L

And SUA106L

Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

#### **SUA106L Surgical Assist Procedures Lab**

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course explores surgical specialties including general, obstetric gynecology, genitourinary, ophthalmic, otorhinolaryngologic, orthopedic, plastic/reconstructive, neuro, cardiothoracic, and peripheral vascular. An in-depth focus of all surgeries and the assistants' role will be covered. Application of knowledge and skills occurs in the surgical assisting laboratory. Students must register for the lecture co-requisite and successfully complete both components.

### Pre-reqs:

**SUA102** 

And SUA102L

And SUA106

Can be Taken Concurrently

## **SUA108** Surg Ast Direct Practice I Sem

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The seminar component of Surgical Assisting Directed Practice I consists of sharing of clinical experiences. Students are required to keep a log of the surgical cases completed. Discussion forums and case studies are used to share information, discuss problems, and answer questions regarding the assigned surgical cases. Students must register for the clinical corequisite and successfully complete both components.

## **Pre-reqs:**

SUA108C

Can be Taken Concurrently

#### **SUA108C** Surg Ast Directed Practice I

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 0 Lab Hours: 15 Other Hours: 0

This course provides students with surgical clinical experience in the surgical assisting role. Specific surgical cases in general and specialty areas are assigned. The main surgery focus is on general, OB/GYN, genitourinary, otorhinolarynogology, and orthopedics. Students are required to complete an accumulative total of 140 cases during Surgical Assisting Directed Practice I and II. Students must register for the seminar co-requisite and successfully complete both components.

# Pre-reqs:

SUA102

And SUA102L

And SUA108

Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

#### **SUA110** Surg Asst Clin Prac II Seminar

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The seminar component of Surgical Assisting Clinical Practicum II consists of sharing of clinical experiences. Students are required to keep a log of the surgical cases completed. Discussion forums and case studies are used to share information, discuss problems, and answer questions regarding the assigned surgical cases. Students must register for the clinical corequisite and successfully complete both components.

Pre-reqs:

SUA110C Can be Taken Concurrently

# **SUA110C** Surg Asst Clin Prac II

Credit Hours: 3 Contact Hours: 21 Lecture Hours: 0 Lab Hours: 21 Other Hours: 0

This course provides students with surgical clinical experience in the surgical assisting role. Specific surgical cases in general and specialty areas are assigned. The main surgery focus is on oral and maxillofacial, plastic and reconstructive, ophthalmic, cardiothoracic, peripheral vascular, and neurosurgery procedures. Students are required to complete an accumulative total of 140 cases during Surgical Assisting Directed Practice I and Clinical Practicum II. Students must register for the seminar co-requisite and successfully complete both components.

#### **Pre-reqs:**

SUA108C

And SUA110 Can be Taken Concurrently
And SUA112 Can be Taken Concurrently

#### **SUA112** Surg Asst Spec Capstone

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course is an in-depth analysis of the students' clinical experiences. Students will complete and present case studies based on their surgical cases. Guest speakers will provide lectures covering general and other surgical specialty areas. In addition, students will participate in credentialing exam preparation activities.

Pre-regs:

SUA110C Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

### **SUA114** Surg Asst Adv Pathophy

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an overview of surgical site infections, causes, and risk factors. The topics of antimicrobial use, wound classifications, anatomy of skin, and wound healing will be covered. This course also explores electrolyte/fluid balance and hematologic principles of surgery.

#### Pre-regs:

**SUA104** 

## SUR102 Principles of Surgery I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course reviews the role of the surgical technologist pre-operatively. Proper patient identification, methods of patient transport, transfer of equipment, body mechanics, surgical skin prep, urinary catheterization, surgical hand scrub technique, microbiology, disinfection, sterilization, electricity, information technology, professionalism, ethics, and communication skills are covered. Application of knowledge and skills occurs in the surgical technology laboratory, in addition to recognition of general surgery instrumentation in major and minor surgical trays. Students must register for the laboratory co-requisite and successfully complete both components.

#### Pre-regs:

SUR102L

Can be Taken Concurrently

# SUR102L Principles of Surgery I Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course reviews the role of the surgical technologist pre-operatively. Proper patient identification, methods of patient transport, transfer of equipment, body mechanics, surgical skin prep, urinary catheterization, surgical hand scrub technique, microbiology, disinfection, sterilization, electricity, information technology, professionalism, ethics, and communication skills are covered. Application of knowledge and skills occurs in the surgical technology laboratory, in addition to recognition of general surgery instrumentation in major and minor surgical trays. Students must register for the lecture corequisite and successfully complete both components.

#### **Pre-reqs:**

**SUR102** 

Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

#### **SUR104** Surgical Pharmacology

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is an introduction to pharmacological agents used in surgery including the administration of anesthesia and preoperative medications, types of anesthesia, complications, and alternative methods to anesthesia. The role of the surgical technologist during administration, as well as the care and handling of medications and solutions, will be covered.

### Pre-reqs:

BIO122 Can be Taken Concurrently
Or BIO123 Can be Taken Concurrently

## SUR105 Surg Anatomy & Pathology

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course reviews surgical anatomy and pathology. The anatomy and pathology for each body system will be covered as it relates to surgical procedures and interventions. Emphasis on human anatomy and understanding the body in its three dimensions and the relationships of parts to one another will be emphasized with each surgical specialty.

## Pre-regs:

And BIO121 Or BIO123 SUR102

## **SUR106** Principles of Surgery II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on the scrub and circulating role of the surgical technologist with a strong emphasis on the intraoperative and post-operative roles. Diagnostic procedures, hemostasis, suture material, surgical needles, stapling equipment, dressings, and post-operative wound care are covered. Application of knowledge and skills occurs in the surgical technology laboratory, in addition to recognition of instrumentation found in laparoscopic, gynecological, and general surgery major and minor surgical trays. Students must register for the laboratory co-requisite and successfully complete both components.

#### Pre-reqs:

**SUR102** 

And SUR106L Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

#### **SUR106L Principles of Surgery II Lab**

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course focuses on the scrub and circulating role of the surgical technologist with a strong emphasis on the intraoperative and post-operative roles. Diagnostic procedures, hemostasis, suture material, surgical needles, stapling equipment, dressings, and post-operative wound care are covered. Application of knowledge and skills occurs in the surgical technology laboratory, in addition to recognition of instrumentation found in laparoscopic, gynecological, and general surgery major and minor surgical trays. Students must register for the lecture co-requisite and successfully complete both components.

### Pre-reqs:

SUR102L

And SUR106

Can be Taken Concurrently

## SUR200 Surgical Specialties I

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course covers the procedural steps, instrumentation, supplies, and patient positioning used for various surgeries in specialties such as OB/GYN, genitourinary, otorhinolaryngology, orthopedics, and robotics. Pathology for these specialty areas include topics such as, disease processes, tumors, fluids, hemodynamic abnormalities, inflammation, and infection. Application of knowledge and skills occurs in the surgical technology laboratory. Students must register for the laboratory co-requisite and successfully complete both components.

# Pre-reqs:

**SUR106** 

And SUR200L

Can be Taken Concurrently

#### **SUR200L Surgical Specialties I Lab**

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the procedural steps, instrumentation, supplies, and patient positioning used for various surgeries in specialties such as OB/GYN, genitourinary, otorhinolaryngology, orthopedics, and robotics. Pathology for these specialty areas include topics such as, disease processes, tumors, fluids, hemodynamic abnormalities, inflammation, and infection. Application of knowledge and skills occurs in the surgical technology laboratory. Students must register for the lecture corequisite and successfully complete both components.

## Pre-reqs:

SUR106L

And SUR200

Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

#### SUR201 Surgical Clinic Prac I Sem

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The seminar component of Practicum I consists of sharing of clinical experiences. Students are required to keep a log of the surgical cases completed. Discussion forums and case studies are used to share information, discuss problems, and answer questions regarding the assigned surgical cases. Students must register for the clinical co-requisite and successfully complete both components.

Pre-regs:

SUR201C Can be Taken Concurrently

# **SUR201C Surgical Clinic Prac I**

Credit Hours: 3 Contact Hours: 21 Lecture Hours: 0 Lab Hours: 21 Other Hours: 0

This course provides students with surgical clinical experience in the first and second scrub roles. Specific surgical cases in general and specialty areas are assigned. The main focus is on general, OB/GYN, genitourinary, otorhinolaryngology, and orthopedic procedures. Students are required to complete an accumulative total of 120 cases during Surgical Clinical Practicum I and II. Students must register for the seminar co-requisite and successfully complete both components.

#### Pre-regs:

**SUR200** 

And SUR200L

And SUR201

Can be Taken Concurrently

### SUR202 Surgical Specialties II

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course covers the procedural steps, instrumentation, supplies, and patient positioning used for various surgeries in specialties such as oral and maxillofacial, plastics and reconstructive, ophthalmic, cardiovascular, peripheral vascular, and neurosurgery. Pathology for these specialty areas include topics such as, disease processes, tumors, fluids, hemodynamic abnormalities, inflammation, and infection. Application of knowledge and skills occurs in the surgical technology laboratory. Students must register for the laboratory co-requisite and successfully complete both components.

Pre-reqs:

**SUR200** 

And SUR202L

Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

#### **SUR202L Surgical Specialties II Lab**

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the procedural steps, instrumentation, supplies, and patient positioning used for various surgeries in specialties such as oral and maxillofacial, plastics and reconstructive, ophthalmic, cardiovascular, peripheral vascular, and neurosurgery. Pathology for these specialty areas include topics such as disease processes, tumors, fluids, hemodynamic abnormalities, inflammation, and infection. Application of knowledge and skills occurs in the surgical technology laboratory. Students must register for the lecture co-requisite and successfully complete both components.

Pre-reqs:

SUR200L

And SUR202

Can be Taken Concurrently

## SUR203 Surgical Clinc Prac II Sem

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The seminar component of Practicum II consists of sharing of clinical experiences. Students are required to keep a log of the surgical cases completed. Discussion forums and case studies are used to share information, discuss problems, and answer questions regarding the assigned surgical cases. Students must register for the clinical co-requisite and successfully complete both components.

# **Pre-reqs:**

SUR203C

Can be Taken Concurrently

#### **SUR203C Surgical Clinic Prac II**

Credit Hours: 4 Contact Hours: 28 Lecture Hours: 0 Lab Hours: 28 Other Hours: 0

This course provides students with surgical clinical experience in the first and second scrub roles. Specific surgical cases in general and specialty areas are assigned. The main focus is on oral and maxillofacial, plastic and reconstructive, ophthalmic, cardiothoracic, peripheral vascular, and neurosurgery procedures. Students are required to complete an accumulative total of 120 cases during Clinical Practicum I and II. Students must register for the seminar co-requisite and successfully complete both components.

### Pre-reqs:

SUR201C

And SUR203 Can be Taken Concurrently
And SUR204 Can be Taken Concurrently



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#### **Health and Human Services**

**Surgical** 

### **SUR204** Surgical Technology Capstone

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course is an in-depth analysis of the students' clinical practicum experiences. Students will discuss surgical cases with classmates, as well as complete and present patient surgical case studies. Students will also develop a professional portfolio to aid in obtaining employment. In addition, this course will prepare students to take the certification exam to become a Certified Surgical Technologist upon graduation.

Pre-reqs:

SUR203C Can be Taken Concurrently

#### **Information Tech**

## **Administrative Srv Off Applion**

## AOT101 ALPHANUMERIC KEYBOARDING

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the working knowledge and basic skills of alphanumeric touch keyboarding. No prior knowledge of keyboarding is required. Upon completion, students should be able to use the proper techniques for alphanumeric keyboarding.

# Pre-reqs:

#### AOT107 DIGITAL TECHNOLOGIES

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course explores various digital technologies used in the modern office. Specific topics include review of current desktop, cloud, and web technologies and the analysis and selection of the proper tool for a business situation. Students will explore and practice using various products to gain proficiency in selection and use of the proper tools.

### Pre-reqs:

Or Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

ITD100



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#### **Information Tech**

# **Administrative Srv Off Applion**

### AOT121 KEYBOARDING/FORMATTING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Knowledge of keyboard is required. This course is designed to refine the fundamentals of "touch" control of the keyboard and proper keyboarding techniques. Major objectives are to build speed and accuracy at the keyboard and to apply keyboarding skills in the formatting of business correspondence, tables and reports. Upon completion, students should be able to format a variety of business documents using a popular word processing package and achieve a minimum keyboarding skill.

### Pre-reqs:

Test & Score: Keyboarding Proficiency Exam - 1

Or AOT101

# AOT127 WP-MICROSOFT WORD

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the concepts, functions, and features of the Microsoft Word program. Creating, editing and storing text are emphasized. Upon completion of this course, the student should be able to produce a variety of professional-looking documents.

# Pre-reqs:

Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

Or ITD100

#### AOT128 Doc Devel & Web Mtce

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the concepts and applications of print and electronic publishing and website maintenance. Emphasis is placed on the creation of various types of high-quality documents and website maintenance. Upon completion, students should be able to design, produce, and maintain professional business publications and websites.

## Pre-reqs:

Or Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

ITD100



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#### **Information Tech**

# **Administrative Srv Off Applion**

### AOT129 Keyboard Skill Building

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course is designed to give students an opportunity to further develop and refine keyboarding skills, along with reinforcing the necessary skills to produce business correspondence. Emphasis on prescriptive keyboarding drills and other typing exercises are to improve keyboarding speed and accuracy. Upon completion, students should be able to diagnose their specific areas of weakness on the keyboard and properly format business documents.

#### **Pre-reqs:**

A0T121

Or OAD121

# AOT130 Editing, Proofreading & Lang

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course emphasizes the elements of written communication and implements advanced review in grammar, punctuation, editing, proofreading, and critical thinking skills to prepare for work in administrative, legal, and judicial reporting environments. Upon completion, students should be able to use accurate grammar, punctuation, editing, and proofreading skills in written communications.

## Pre-regs:

#### AOT132 RECORDS MANAGEMENT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is an introduction to the fundamentals of a records and information management program. Emphasis is placed on learning and applying standard rules for alphabetic storage and retrieval; including the subject, numeric, and geographic filing methods. Also covered are basic concepts of a records management program and its system components as well as current electronic trends. Upon completion, students should be able to demostrate an understanding of the components of a records management program and competence in applying the generally accepted standard filing rules.

## **Pre-reqs:**

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480



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#### **Information Tech**

# **Administrative Srv Off Applion**

#### AOT132 RECORDS MANAGEMENT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is an introduction to the fundamentals of a records and information management program. Emphasis is placed on learning and applying standard rules for alphabetic storage and retrieval; including the subject, numeric, and geographic filing methods. Also covered are basic concepts of a records management program and its system components as well as current electronic trends. Upon completion, students should be able to demostrate an understanding of the components of a records management program and competence in applying the generally accepted standard filing rules.

#### Pre-regs:

**IDS102** 

## **AOT134 FORM DESIGN ESSENTIALS**

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course is designed to introduce entry-level skills in creating effective form development. Topics discussed are forms analysis, layout, design, sequence of information, column design, electronic forms, hard copy forms, and web-based forms. Upon successful completion of this course, students should have a greater knowledge base of how to create electronic and print forms for any organization.

#### **Pre-reqs:**

AOT127

## AOT224 LEGAL OFFICE PROCEDURES

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is an introduction to the unique characteristics of law office organization and management with an emphasis on computer applications in law. A general introduction to nonlitigation responsibilities and fundamentals of grammar, style and letter writing are covered. Upon completion, students should be able to demonstrate an understanding of concepts and procedures in a law office.

#### **Pre-reqs:**

Or AOT121 And AOT130 OAD121 Or OAD130



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#### **Information Tech**

# **Administrative Srv Off Applion**

# AOT226 SHRSHEET MICROSFT EXCEL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course increases knowledge and skills to create and edit worksheets, use formulas and functions, sort and filter detail data visually, and present summary information in a consumable and professional format. Students have the opportunity to master the advanced functionality of Microsoft Excel and to apply those skills to business and personal applications. Although the basic functions of Excel will be covered, areas of focus include creating graphs and charts, using financial functions and analytical tools, linking worksheets and workbooks, importing and manipulating data, using macros (automation of tasks), and using auditing tools. Upon completion, students should be able to demonstrate proficiency in using Microsoft Excel.

#### **Pre-reqs:**

Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

Or ITD100

#### AOT227 ADMIN PROCEDURES AND SYSTEMS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Emphasis will be placed on an administrative office setting. Areas covered include keyboarding and composing of various office correspondences, processing mail, dealing with visitors, maintaining an office calendar, and making travel arrangements. Office problems, practices, and procedures are also emphasized. CTAPS001 effective fall 2018

#### Pre-regs:

AOT121

Or AOT127

Or AOT129

And AOT130

And ITD122

#### AOT232 AOT PRACTICUM

Credit Hours: 2 Contact Hours: 8 Lecture Hours: 1 Lab Hours: 7 Other Hours: 0

Students work a total of 105 hours for businesses outside of the college or for college faculty and/or staff. Weekly instructor-guided activities are part of this course, which may include required class attendance. Upon completion, students should be able to demonstrate proficiency in administrative tasks and skills in a work environment.

#### **Pre-reqs:**

AOT227

Or AOT228

Or AOT237



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#### **Information Tech**

# **Administrative Srv Off Applion**

#### AOT235 LEGAL RESEARCH AND WRITING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the student to the basics of legal writing, document drafting skills and legal research strategies used in assisting lawyers in the preparation of legal documents.

#### Pre-regs:

#### AOT236 DB APP MICROSOFT ACCESS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers database applications on the microcomputer using the Microsoft Access program. Upon completion, students should be able to demonstrate proficiency in using MS Access to solve common business problems.

#### **Pre-reqs:**

Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

Or ITD100

#### AOT237 LEGAL OFFICE APPLICATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed for students to gain practical experience in preparing legal documents selected from actual cases, review general information about the tasks assigned, follow established procedures and learn the job responsibilities of a legal assistant through simulated activities. Fundamentals of grammar and punctuation skills, as well as the formatting of legal documents, are emphasized. Upon completion, students should be able to perform legal office responsibilities and produce a variety of legal documents using word processing, spreadsheet, database, and presentation software packages.

# Pre-reqs:

And AOT224

A0T239



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#### **Information Tech**

# **Administrative Srv Off Applion**

#### AOT239 LEGAL TRANSCRIPTION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to prepare students to perform legal transcription in a law office or other legal settings. Classroom instruction will be provided in the different areas of law, the judicial system and legal terminology. Provide students with the knowledge, terminology and background needed to prepare legal documents. Upon completion, students should be able to proficiently transcribe and format a variety of legal documents.

#### Pre-regs:

And AOT129

Can be Taken Concurrently

AOT130

#### ITD100 COMPUTER APP-WIND & CONCPTS

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course introduces students to basic computer concepts and the Windows operating system. Upon completion, students should be able to demonstrate an understanding of how the computer functions, applications for which it is used and graphical user interfaces.

## Pre-regs:

## ITD102 Computer Applications - Word

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the use, styles and features of word processing programs. Upon completion, students should be able to utilize MS Word as a basic business tool.

### **Pre-reqs:**

Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

Or ITD100



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#### **Information Tech**

# **Administrative Srv Off Applion**

# ITD104 Computer Applications - PPT

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the use, styles and features of graphic presentation programs. Upon completion, students should be able to utilize MS PowerPoint as a basic business tool.

### Pre-reqs:

Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

Or ITD100

# ITD105 Computer Applications - Excel

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the use, styles and features of spreadsheet programs. Upon completion, students should be able to utilize MS Excel as a basic business tool.

#### Pre-regs:

Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

Or ITD100

## ITD106 Computer Applications - Access

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the use, styles and features of database application programs. Upon completion, students should be able to utilize MS Access as a basic business tool.

# Pre-reqs:

Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

Or ITD100



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#### **Information Tech**

# **Administrative Srv Off Applion**

#### ITD108 Microsoft Outlook

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the use, style, and features of the Microsoft Outlook program. Upon completion, students should be able to utilize Microsoft Outlook as a communication and business tool.

## Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

Or IDS102

#### ITD109 Presentation Tech for Trainer

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

Emphasis will be placed on the use of various presentation technologies and how to use those technologies to deliver dynamic presentations with ease. Upon completion, students should be able to create presentations utilizing various technologies and present the information to both technical and non-technical audiences.

### Pre-reqs:

Or Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

ITD100



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#### **Information Tech**

# **Administrative Srv Off Applion**

#### ITD122 COMPUTER APP FOR PROFESSNL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Computer Applications for Professionals familiarizes students with major Windows-based applications software and introduces the Windows operating system, the Windows networking environment, and practices file and folder maintenance. The focus of the course is to provide students with basic understanding and competence in industry-standard word processing, spreadsheet, database, and presentation software applications that are used to solve scientific, business, and engineering problems.

### Pre-reqs:

 $Test \& Score: Computer \ Test - 21$ 

Or Test & Score: HS Computer Class - 2

Or ITD100

### ITD123 MAC CONCEPTS

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course introduces students to basic Mac computer concepts and the Mac operating system. Upon completion, students should be able to demonstrate an understanding of how the Mac computer functions, applications for which it is used and the graphical user interface.

#### Pre-regs:

#### ITD140 Digital Project Management

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides the foundation of basic project management concepts and terminology and the skills to effectively plan, implement, and control projects using an electronic project system. The basics of using a project management system are covered including creating a project schedule, using various views, producing useful reports, and managing project information, resources, and costs.

#### Pre-regs:

Or Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

ITD100



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#### **Information Tech**

# **Administrative Srv Off Applion**

### JCR1001 CLARK-Realtime Theory I

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

Writing, reading, and translating the written and spoken word by means of a National Court Reporters Association (NCRA) approved, conflict-free realtime theory. Emphasis on mastery of beginning machine shorthand principles, speed development of 40 words per minute (wpm) on dictation of familiar material, and rapid and accurate reading of steno notes. Introduction to realtime career opportunities, professional organizations, ethics of the realtime profession, the National Court Reporters Association (NCRA) code of Professional Ethics, certifications, and life-long learning.

Pre-reqs:

#### JCR1002 Realtime Theory II

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

Advanced writing, reading, and translating the written and spoken word by means of a National Court Reporters Association (NCRA) approved, conflict-free realtime theory. Emphasis on mastery of advanced machine shorthand principles, speed development of 60 words (wpm) on dictation of familiar material, and rapid and accurate reading of steno notes.

#### **Pre-reqs:**

JCR1001

## JCR1003 CLARK-Realtime Theory Apps

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

## CLARK STATE COMMUNITY COLLEGE

Application of realtime theory foundation. Emphasis on mastery of brief forms, phrases, basic realtime editing functions, speed development of 60 words per minute (wpm) on dictation of unfamiliar material, and rapid and accurate reading of steno notes.

Pre-reqs:



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#### **Information Tech**

# **Administrative Srv Off Applion**

## JCR1101 CLARK-Skill Building I

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

## CLARK STATE COMMUNITY COLLEGE

Development of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in literary, jury charge, and testimony material for development of skill and accuracy in speeds ranging from 50-100 words per minute (wpm). Monitored realtime transcription of speed dictation tests in each of the areas of dictation completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.

Pre-regs:

### JCR1102 Skill Building II

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

Further development of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in literary, jury charge, and two-voice testimony material for development of skill and accuracy in speeds ranging from 70-120 words per minute (wpm). Introduction to multivoice dictation, use of speaker IDs, and computer-integrated courtroom setup. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of one-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.

Pre-regs:

JCR1101

# JCR131 Legal Terminology

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Instruction in legal terminology in civil law; criminal; and the discovery, trial, and appellate processes. Upon completion, students should be able to comprehend, appreciate, and use legal terms.

Pre-reqs:



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#### **Information Tech**

# **Administrative Srv Off Applion**

## JCR2103 CLARK-Skill Building III

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

#### CLARK STATE COMMUNITY COLLEGE

Application of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in literary, jury charge, and two-voice testimony material for development of skill and accuracy in speeds ranging from 90-160 words per minute (wpm). Development of writing skill in multivoice dictation and use of speaker IDs. Application of computer-integrated courtroom setup knowledge. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of two-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction.

### JCR2104 Skill Building IV

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

Further application of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in literary, jury charge, and two-voice testimony material for development of skill and accuracy in speeds ranging from 110-180 words per minute (wpm). Application of writing skill in multivoice dictation and use of speaker IDs. Demonstrate knowledge of computer-integrated courtroom setup. Exposure to current events tools. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of three-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.

### Pre-regs:

JCR2103

## JCR2105 CLARK-Skill Building V

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

### CLARK STATE COMMUNITY COLLEGE

Implementation of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in literary, jury charge, and two-voice testimony material for development of skill and accuracy in speeds ranging from 130-200 words per minute (wpm). Development of writing skill in medical terminology. Execution of writing skill in multivoice dictation and use of speaker IDs. Application of current events tools. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of four-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction Designed for competency-based modular instruction.



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#### **Information Tech**

# **Administrative Srv Off Applion**

### JCR2106 Skill Building VI

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 1 Lab Hours: 6 Other Hours: 0

Demonstrate quality writing skills, readback and analysis of shorthand notes, proofreading skills, strong practice habits, and knowledge of current events tools. Dictation in literary, jury charge, and two-voice testimony material for development of skill and accuracy in speeds ranging from 150-225 words per minute (wpm), with course completion goal of required graduation speeds at 225 wpm testimony, 200 wpm jury charge, and 180 wpm literary at a minimum of 95 percent accuracy. Application of writing skill in medical terminology, multivoice dictation, and use of speaker IDs. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of five-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with tracher interaction. Designed for competency-based modular instruction.

JCR2105

#### **ICR2200 CLARK-Realtime Business Proced**

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

#### CLARK STATE COMMUNITY COLLEGE

Role of the realtime court reporter in trials, depositions, and administrative hearings with application of the National Court Reporters Association (NCRA) Guidelines for Professional Practice for Court Reporters; overview of transcript preparation and production; development of office management skills; overview of broadcast captioning and Communication Access Realtime Translation (CART) including the psychology of on-air captions, Federal Communications Commission (FCC) regulations, broadcast news production, pre-scripting, the NCRA CART Provider's Manual, NCRA Guidelines for Professional Practice for Captioners and CART Providers, and the Americans with Disabilities Act (ADA); overview of interview process; professional development in dress and conduct; involvement in professional associations and appreciation of continuing education.

\*Pre-regs\*:

## JCR2300 CLARK-CAT Transcript Prod

Credit Hours: 2 Contact Hours: 4 Lecture Hours: 1 Lab Hours: 3 Other Hours: 0

#### CLARK STATE COMMUNITY COLLEGE

Application of principles of transcript editing and production techniques using computer-aided transcription (CAT) software with a focus on CAT terminology, proper scoping and proofreading skills, applying correct grammar rules, dictionary management, parenthetical creation and application, and template file usage in preparation for employment.

Pre-regs:



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#### **Information Tech**

# **Administrative Srv Off Applion**

### JCR2400 JCR Internship

Credit Hours: 2 Contact Hours: 6 Lecture Hours: 1 Lab Hours: 5 Other Hours: 0

Judicial court reporting practice in both the official and freelance areas, with a minimum of 60 writing hours and 15 observation hours under the supervision of a practicing court reporter using machine technology. Dictation in literary, jury charge, and two-voice testimony material for demonstration of required graduation skill speeds of 180 words per minute (wpm) literary, 200 wpm jury charge, and 225 wpm two-voice testimony at 95 or 96 percent accuracy. Simulated Registered Professional Reporter (RPR) examination. Upon graduation, students should be prepared to pass the National Court Reporters Association's (NCRA) RPR examination.

**Pre-reqs:** 

### JCR2502 Advanced Captioning/CART

Credit Hours: 3 Contact Hours: 7 Lecture Hours: 2 Lab Hours: 5 Other Hours: 0

This course is designed to teach students in-depth realtime/captioning/CART (Communication Access Realtime Translation) skills, including the understanding of a broad-based vocabulary content specific to the captioning/CART environment and applying the National Court Reporters Association's (NCRA) Code of Professional Ethics, Guidelines for Professional Practice for Broadcast Captioners, Guidelines for Professional CART Providers, CART Provider's Manual, and Recommended Style and Format Guidelines. Topics include how to research specific shows, development and management of specific captioning and CART dictionaries, advanced instruction on captioning and CART style guidelines, utilizing specialized captioning software for reporting in broadcast environments, and editing screen setup and display in CART environments for maximum client benefit. Upon completion, students should be able to demonstrate realtime/captioning/CART production.

JCR2501

#### JCR2600 Captioning/CART Internship

Credit Hours: 2 Contact Hours: 6 Lecture Hours: 1 Lab Hours: 5 Other Hours: 0

Broadcast captioning and Communication Access Realtime Translation (CART) captioning practice with a minimum of 25 verified hours and 15 hours of research and dictionary preparation of writing in each area under the supervision of a practicing captioner and practicing CART captioner and/or institutional instructor. Dictation in literary, jury charge, and two-voice and multi-voice testimony material for development of skills and accuracy in speeds ranging from 180-225 words per minute (wpm). Monitored transcription of speed dictation tests in each area of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Use of online, computer-aided transcription technology with teacher interaction. Specific requirements must be completed to pass this course: transcribe a minimum of two 5-minute, two-voice testimony tests with a minimum of 95 percent accuracy, dictated at a minimum speed of 225 wpm; three 5-minute realtime literary tests with a minimum of 96 percent verbatim accuracy, dictated at a minimum of 180 wpm; and write three 15-minute, realtime literary broadcast material takes at 180 wpm (syllabic and/or word count) at 96 percent verbatim accuracy, following NCRA's "What is an Error?" guidelines. The instructor will grade a random five-minute selection from each 15-minute take.



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#### **Information Tech**

# **Administrative Srv Off Applion**

# **TDS121** Intro to Training & Developmen

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The purpose of this course is to recognize the multiple career paths of a training and development specialist. Students will begin to explore how adult learners learn. They will become aware of what it means to become a trainer and develop training components, as well as begin to explore the ADDIE cycle (analysis, design, development, implementation, and evaluation).

Pre-regs:

# **TDS122** Training Logistics

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the vast responsibilities that trainers will need to consider before, during, and after training sessions. Students will recognize the importance of flexibility and contingency plans for training logistics. They will also learn the various follow-up steps after each session that must be taken to analyze the effectiveness of the trainer themselves and the training they provided.

**Pre-reqs:** 

# **TDS123** Team Building Dynamics

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will cover the theories, concepts, and design of team building. Students will explore effective team building components, which will include team development; expectations, relationships, and roles; commitment and responsibilities; and results and outcomes.

Pre-regs:



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### **Information Tech**

# **Administrative Srv Off Applion**

## **TDS124** Instr Design for the Trainer

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students will learn to identify the different types of target populations for whom the training is intended so they can organize the selected skills and knowledge to be taught into logical teaching components, which will include: training objectives, activities, teaching strategies, competencies, and assessments.

### Pre-regs:

TDS121

# **TDS220** Measuring & Evaluating Trng

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Introduction and exploration of the process of evaluation, measurement of impact, and return on investment for training courses and programs. Focuses on critical aspects of developing and implementing an evaluation plan for face-to-face, online, or virtual training programs.

### Pre-regs:

**TDS122** 

Can be Taken Concurrently

# **TDS221** Intro to eLearning Tools

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course introduces and examines the various tools and technologies used for training. Students will explore, research, and analyze the best tools and technologies to create eLearning training materials.

Pre-reqs:



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### **Information Tech**

# **Administrative Srv Off Applion**

## TDS222 Creating & Imple Online Trng

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course explores the tools necessary to develop, implement, and evaluate web-based learning. Students will learn and use current technology tools to create course materials for web-based delivery.

### Pre-regs:

**TDS221** 

## **TDS223 ADDIE Capstone Course**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students will facilitate the process of training and development and ensure that training programs are necessary, valid, and effective. A capstone project and portfolio will be part of this course, demonstrating each step of the ADDIE cycle (analyze, develop, design, implement, evaluate) of training and development.

#### Pre-regs:

**TDS124** 

## **Computer Science**

### CIS121 HELP DESK AND COMP SUP CONCEPT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides the student with essential topics covering help desk operations, roles and responsibilities of the analysts, help desk processes and procedures, tools and technologies, performance measures, and the help desk setting itself. There are numerous hands-on projects to practice implementing help desk concepts in a real world situation. Upon completion, students will have a skills to explore in greater detail various helpdesk tools, situations, and user conflicts and resolution. CTAG approved CTIT006, effective fall 2018.

# Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480



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### **Information Tech**

### **Computer Science**

### CIS121 HELP DESK AND COMP SUP CONCEPT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides the student with essential topics covering help desk operations, roles and responsibilities of the analysts, help desk processes and procedures, tools and technologies, performance measures, and the help desk setting itself. There are numerous hands-on projects to practice implementing help desk concepts in a real world situation. Upon completion, students will have a skills to explore in greater detail various helpdesk tools, situations, and user conflicts and resolution. CTAG approved CTIT006, effective fall 2018.

### Pre-reqs:

**IDS102** 

### CIS125 DATA ANALYSIS AND DECISION MAK

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on key technological areas used for the analysis and transforming of data into actionable information. Students will learn advanced database and data manipulation concepts relating to the storage, retrieval, and analysis of information. Popular tools will be utilized to evaluate various data sources, define business dimensions, store transactions, produce results and transfer data. Upon successful completion of this course, students will be prepared to leverage the power of these tools to perform data analysis.

#### Pre-regs:

CPD121

# CIS126 FUNDAMENTALS OF INFO SYSTEMS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to familiarize students with core information systems principles and practices. Topics include, but are not limited to, types of information systems, hardware and software, data modeling, database systems, internet technologies, systems development, careers, global and social impacts, and industry trends.

## Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102



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### **Information Tech**

**Computer Science** 

### CIS221 GENERATING RPTS DECSN MAKING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides students with exposure to various tools used to connect to databases, retrieve and modify raw data, and then generate various types of reports. Topics will include, but not limited to, the generation of various types of reports and extensive use of pivot tables, calculations, program logic, and SQL statements. Upon completion of this course, students will be able to use a variety of software tools to manipulate data and generate meaningful reports.

### Pre-regs:

Or CPD121

ECA253

### CIS222 DATA ACQUISITION AND ANALYSIS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The course is designed to build skills and confidence in data analysis and report writing. A substantial part of this time is spent analyzing data/datasets and producing a report using the techniques learned in the course. Using a workshop type learning atmosphere, the instructor advises participants in the analysis of the datasets and preparation of reports. Topics include frequency distributions, measures, and graphical presentation.

# Pre-reqs:

**CIS125** 

## CIS224 Advanced Help Desk

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course broadens student customer service skill set. The course continues to build on end user communication methods, both oral and written. Students will be exposed to Information Technology Infrastructure Library (ITIL) and Help Desk Institute (HDI) best practices.

### **Pre-reqs:**

**CIS121** 



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### **Information Tech**

## **Computer Science**

### CPD121 DATA MODELING AND DATABSE DSGN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces database concepts and describes how to properly design, create and interface with a relational database. The course begins with definition of important terms. It demonstrates the specific rules that one must follow to design and create a normalized relational database. SQL is also an important topic. Students complete a collection of handson labs to learn how to apply the techniques presented.

## Pre-regs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Computer Test - 21

Or Test & Score: Compass Reading - 080

Or Test & Score: HS Computer Class - 2

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102

And ITD100

## **CPD123** Structured Query Language

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces database technology, relational database concepts, and the powerful SQL programming language. This course provides the students with the essential SQL skills of querying the database and the metadata along with creating database objects. Demonstrations and hands-on practice reinforce the concepts. Upon completion, the student should have the confidence and skill to develop, maintain, and utilize SQL scripts and code.

### **Pre-reqs:**

CPD121



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### **Information Tech**

# **Computer Science**

### CPD221 ORACLE DATABASE:PL/SOL PR

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students will learn to program in PL/SQL as they are guided from very simple PL/SQL blocks to advanced PL/SQL performance optimization. The topics start with the basics of SQL and progress into increasingly complex structures and objects. The PL/SQL section begins with simple concepts and students will gradually master PL/SQL through increasingly challenging classroom exercises. Upon completion, students will be able to program in PL/SQL to design basic to complex structures and objects.

### Pre-reqs:

CPD123

Or CSE122

And ECA127

## CPD224 ADV MICROSFT SQL SRVR DTBSE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

In this course students will gain the knowledge and skills to design server-side solutions for Microsoft SQL Server. The course focuses on teaching students the skills of database developers who are individuals who work in enterprise environments to identify and place database technologies during design to achieve a suitable solution that meets the needs of an organization. Students will also learn to consider the solution from a system-wide view instead of from a single database or server perspective.

### Pre-regs:

Or CPD122

CPD123

Or CPD222

### CPD225 DATA MINING AND DATA WARHOUSNG

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides a thorough practical coverage of the techniques used to build a warehouse including requirements definitions, extract-transformation-loads of data, query applications and executive information systems. Additionally, data mining algorithms and techniques that identify expected and unexpected trends in data stored in a warehouse will be covered. Upon completion students will be able to design, implement and use a data warehouse and use data mining tools to analyze and identify patterns in data.

# Pre-reqs:

Or CPD122

CPD123

Can be Taken Concurrently

And CPD222



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### **Information Tech**

## **Computer Science**

### CSE121 MOBILE DEVELOP ARCHITECTURE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the student to the overall methodologies of developing applications for mobile and handheld devices. The design, architecture, and techniques of mobile and handheld devices will be analyzed. Upon completion of the course, students should have an understanding of the mobile application development process.

### Pre-reqs:

Or CSE122 Can be Taken Concurrently

Or CSE122

Or CSE122A

And CSE122B

ECA127 Can be Taken Concurrently

### CSE122 PROGRAMMING LOGIC & PROB SOLV

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces students to program logic and problem solving techniques. Primary emphasis is on achieving familiarity with structured programming principles through awareness and application of structured programming and object-oriented concepts and techniques. Upon course completion, students will develop the logic to solve programming solutions using structured flowcharts and pseudocode. CTAG approved CTPROG001 effective fall 2017

# Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Computer Test - 21

Or Test & Score: Compass Reading - 080

Or Test & Score: HS Computer Class - 2

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

And ITD100



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### **Information Tech**

**Computer Science** 

### CSE122A PROGRAMMNG LOGIC & PROB SOLV A

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course introduces the student to program logic and problem solving techniques. Primary emphasis is on achieving familiarity with algorithm development, variables, sequential statements, and conditional statements. Upon completion students should have an understanding of the following concepts: algorithms, variables and data types, basic sequential statements, conditional logic and how to use them in program coding.

## Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

And Test & Score: Computer Test - 18

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102

Or ITD100

### CSE122B PROGRAMMNG LOGIC & PROB SOLV B

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course introduces the student to program logic and problem solving techniques. Primary emphasis is on achieving familiarity with the coding of iterations, arrays, procedures and programming constructs. Upon completion students should have an understanding of the following constructs: iterations, arrays, procedures and how to use them in program coding.

### Pre-regs:

Or CSE122A

ECA127A



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### **Information Tech**

**Computer Science** 

### CSE221 ANDROID DEVELOPMENT 1

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers how to build mobile applications for the Google Android platform. The history and architecture of the Android operating system will be analyzed. Upon completion of the course, students will be able to create simple Android applications and also have an understanding of Android SDK Tools.

## Pre-reqs:

CSE231

Or ECA223

### CSE222 IOS DEVELOPMENT I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers how to build mobile application for the Apple iOS. The history and architecture of iOS will be analyzed. Upon completion of the course, students will be able to create simple iOS applications and also have an understanding of the various tools available with the iOS SDK.

# Pre-reqs:

CSE121

### CSE224 ANDROID DEVELOPMENT 2

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers advanced mobile applications for the Google Android development. Android best practices will be discussed along with other in-depth Android programming topics. Upon completion of this course, students will demonstrate the ability to create advanced Android applications and the ability to package the applications for deployment in the Android marketplace.

### **Pre-reqs:**

CSE221



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### **Information Tech**

**Computer Science** 

## CSE225 CROSS-PLATFORM MOB APP DEV

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course examines the various methods for developing mobile applications that are compatible with various operating systems. Coding with frameworks that allow for deployment across different systems will be conducted. Upon completion of the course, students should understand how to create mobile applications that will function on different mobile and handheld devices.

### Pre-regs:

**CSE122** 

And WDD121

# CSE226 XAML Development

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides an overview of application development and the lifecycle for programs created using XAML and C#. In this course, students will create basic applications with XAML to run on various platforms. Students will also learn how to use available emulation environments to run and test their applications.

### Pre-regs:

Or CSE231

ECA223

## CSE229 .Net Development

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course addresses designing, developing, testing, and deploying desktop software applications using the Microsoft.Net programming languages. Upon completion of this course, the student should be able to develop a desktop application with a graphical user interface, write code using .Net control structures, properly validate user input, and test and debug the application.

# Pre-reqs:

Or CSE122



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### **Information Tech**

## **Computer Science**

### CSE230 Adv .Net Development

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course examines advanced features of the NET languages and the .NET Framework. The course also examines object-oriented programming topics, including controlled inheritance and the use of cross-language inheritance. Comprehensive hands-on lab exercises using .NET languages reinforce instructor lectures and build direct competence in the topics presented throughout the course. Upon completing this course, the student should be able to create applications utilizing data connections, datasets, and datatables.

### Pre-reqs:

Or CSE229

ECA128

#### CSE231 JAVA PROGRAMMING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The course covers the fundamentals of Java such as creating and executing Java programs that apply sequential, conditional and repetitive logic constructs. Students will also learn best programming practices through application of structured programming principles and object-oriented concepts. Arrays, classes, methods, and application of object-oriented techniques are also central topics. Upon completion, students will have an understanding of the Java language and the skills to develop solutions for intermediate-level programming problems. CTAG approved CTPROG002 effective fall 2017

# Pre-reqs:

Or CSE122

ECA127

### CSE231A JAVA PROGRAMMING A

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course introduces students to software programming logic and problem-solving techniques using the Java programming language. Sequential, conditional and repetitive logic constructs are central topics. Upon completion, students should have an understanding of the Java language and the skills to develop the logic to solve programming problems.

### Pre-regs:

Or CSE122



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### **Information Tech**

**Computer Science** 

### CSE231B JAVA PROGRAMMING B

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course introduces students to software programming logic and problem solving techniques using the Java programming language. Primary emphasis is on achieving familiarity with proper programming practices through awareness and application of structured programming principles and object-oriented concepts. Students learn how to write Abstract Data Types as a part of the object-oriented presentations. Upon completion, students should have an understanding of the Java language and the skills to develop the logic to solve advanced programming problems.

### Pre-regs:

CSE231A

## CSE232 ADVANCED JAVA PROGRAMMING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course delves into advanced object-oriented topics such as inheritance, exception handling, graphical user interface, recursion, collections, file manipulation, and searching and sorting. Using a collection of practical application and hands-on labs, students will learn advanced aspects of an object-oriented language. Upon completion, students should have an understanding of the Java language and the skills to develop the logic to solve advanced programming problems.

#### **Pre-reqs:**

Or CSE231

ECA223

# CSE233 C++ PROGRAMMING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on software engineering concepts, control structures, functions, arrays, pointers and strings found in C++. In addition, the course also examines data abstraction, classes, and operator overloading in C++. Principles of good software engineering are emphasized. Hands-on labs prepare students to solve real-world problems. CTAG approved CTPROG003 effective fall 2017

### **Pre-reqs:**

Or CSE122



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### **Information Tech**

**Computer Science** 

#### CSE233A C++ PROGRAMMING A

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course focuses on software engineering concepts, control structures, and functions found in C++. Principles of good software engineering are emphasized. Hands-on labs prepare students to solve real-world problems.

## Pre-reqs:

**CSE122** 

Or CSE122B

### CSE233B C++ Programming B

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course focuses on software engineering concepts, arrays, pointers, and strings found in C++. In addition, the course also examines data abstraction, classes, and operator overloading in C++. Principles of good software engineering are emphasized. Hands-on labs prepare students to solve real-world problems.

# Pre-reqs:

CSE233A

### CSE234 ADVANCED C++ PROGRAMMING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students will complete a collection of hands-on lab exercises to create software using the Visual C++ programming language. Students will take advantage of the object-oriented approach to design, develop and utilize components using the Microsoft Component Object Model.

### **Pre-reqs:**

Or CSE233



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### **Information Tech**

# **Computer Science**

### CSE235 PYTHON DEVELOPMENT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will introduce students to basic programming and syntax, object-oriented techniques, and GUIs using the Python development environment. Control structures, functions, classes, and inheritance will be covered. Additionally, the practical application of Python programming will be examined. Upon completion of the course, students should understand how to create functional programs using the Python programming language.

### Pre-reqs:

Or CSE122

ECA127

### CSE236 ANLYZNG SFTWRE REQ AND DEV SOL

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 1 Lab Hours: 4 Other Hours: 0

Students will work in teams to investigate, analyze, design, and implement a computer software solution to a simulated or actual real-world business problem. Components that are emphasized are preliminary investigations, systems request, fact finding, systems requirements, logical modeling, input and output design principles, and the use of various applications for documentation, design, and development. Upon completion, students will be able to demonstrate an understanding of the software development life cycle.

# Pre-reqs:

**CIS221** 

And CPD123

Or CSE227

Or CSE229

Or CSE231

Or CSE233

Or WDD221

Or WDD222

Or WDD224

Or WDD226



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### **Information Tech**

**Computer Science** 

### EET245 TECH PROJ-ELECC TELECOM

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A course designed to allow the student to use the capabilities developed in the telecommunications program courses to carry a project from concept to completion.

### Pre-regs:

### **EET260 COMPUTER FORENSICS**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course presents computer crime investigations. Demonstrations and hands-on practice will reinforce topics such as computer crime, programming in the network monitoring platform, trap and trace techniques and patch level enumeration. Upon completion, the students will be able to provide detailed descriptions of computer crimes and understand the technology related to a response team.

#### **Pre-reqs:**

Or CAP121

ECA127

And EET131

## EET261 ADVCD NETWKG AND SECURTY TPC

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Session hijacking, trojans, virii, input validation and other types of attacks are covered in this class. Ghost Mail, NetCat and war dialers will be used as tools to provide counter measures against the computer criminal.

## Pre-reqs:

ECA129

And ECA130

And EET131

And EET141



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### **Information Tech**

**Computer Science** 

### GIS123 MAPS AND MAP READING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will focus on geographic concepts, history of map making, and cartographic terminology and processes. Principle topics covered in this course include map elements, map types, the use of symbology, projections, coordinate systems, scales, distance, contours, topographic features and the understanding of physical, economic and human effects on map making. TAG approved effective summer 2016 - OSS026

Pre-regs:

### GIS231 GEOGRAPHIC INFORMATION SYSTEMS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course emphasizes the principles and concepts of a geographic information system and its applications. Upon completion, students will understand the components that make up a geographic information system, the proper project planning processes, components of global positioning systems, and how to build data layers through imagery identification and basic data queries. TAG approved OSS231 effective spring 2019

#### **Pre-reqs:**

Or ENV223 GIS123

## GIS233 ADV TOOLS IN GEOSPAT TECH

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course prepares students to apply processes in geospatial technologies, including spatial analysis, surface analysis and routing analysis. Students are expected to be able to apply appropriate database management and file structure skills in building a geodatabase. By learning the application of GIS data structures and topology, students will be expected to perform geospatial analysis from data collection to data analysis.

**Pre-reqs:** 

**GIS231** 



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### **Information Tech**

## **Computer Science**

### GIS234 GEOSPATIAL TECH IN INDUSTRY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course emphasizes learning of real-world applications using spatial tools and processes. With an identified geographically-related problem or situation, students will utilize tools and functions in order to conduct geospatial analysis to solve the problem and illustrate the situation with different tools such as GIS and remote sensing. Each lesson in this course will utilize skills learned in previous coursework and given the ability to apply these tools in differing disciplines of geospatial technologies, such as homeland security, emergency management, land planning, economic development, and business management.

### Pre-regs:

**GIS233** 

#### SGE121 GAME DESIGN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides a broad overview of the game design process. Students explore the game design process by inventing the concept and design of their own board/video game. Students walk through the process of creating their own game design document and use it to guide them as they work on their game project. The course explores a variety of game design concepts while students work through their game project including game worlds, character development, core mechanics and game balance. Students are also introduced to the magic circle and level design.

#### **Pre-reqs:**

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

## SGE221 ADV GAMING AND SIMULATN TOPICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is divided into three sections. The first section deals with physics and has students use rigidbodies, colliders, and hinges to create different physics effects. The second section of this course focuses on the user interface (UI) and building game menus and information to the screen in a clear manner to the player. The third section of the course is about artificial intelligence (AI) and designing different ways to have the games' enemies patrol and attack.

### Pre-regs:

SGE222



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### **Information Tech**

# **Computer Science**

### SGE222 3D GAME DESIGN AND DEV

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on 3D game development. The student will create movement scripts, design maze levels, create inventory systems, and script basic artificial intelligence (AI) for enemy players. Students create triggers to open doors and spawn events and non-player characters (NPCs). Students also learn how to script triggers that import images from third party websites into their game when players activate them, which can be used to add advertising or give the player directions.

### Pre-reqs:

ECA281

Or SGE223

## SGE223 2D GAME DESIGN AND DEVELP

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course has students build a complete first level of a 2D game similar to the original Mario Brothers game. Students build title screens, option menus, and other user interface (UI) elements such as health meters and coin counters. Students create triggers to spawn enemies, create moving platforms and obstacles for the player to get around. Students script basic artificial intelligence (AI) for enemy non-player characters (NPCs) and create an end condition to trigger the completion of the level.

# Pre-reqs:

CSE122

And SGE121

### SGE224 Game Programming I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course develops the students' understanding of simulation and game production and implementation. Activities are focused upon understanding of advanced concepts and implementation techniques central to game development. Lab activities are focused upon the writing of code for games in a high-level programming language. Upon completion, the student will be able to code for advanced gaming methods and procedures.

## Pre-reqs:

**CSE122** 



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### **Information Tech**

**Computer Science** 

### SGE225 Assets for Games

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the use of game assets in the Unity game engine. Students will learn how to find assets in the Unity asset store as well as how to import pre-made assets from other sources outside the Unity asset store. These assets will include 3D art, animated characters as well as music and sound effects. Students will be shown several sites that offer these pre-made assets and the different licensing issues with these assets will be discussed.

### Pre-regs:

**SGE121** 

## SGE226 Game Programming II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course further develops the students' understanding of the simulation/gaming production and implementation process. Class activities are focused upon understanding of more advanced concepts and implementation techniques central to the game and simulation development process. Lab activities are focused upon the writing of simple, yet complete, interactive programs in a high-level programming language.

#### **Pre-reqs:**

SGE224

# SGE230 Game Portfolio

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is the capstone experience in video game design and development. The project experience will synthesize previously covered techniques by allowing the students to design and develop an entire simulation/game project. The students will, under the guidance of faculty mentors, take a complete project from idea to proposal to development to product in a diverse team environment. The project sequence culminates with the completion and formal presentation of a completed working interactive 3D simulation/game.

**Pre-reqs:** 

SGE221

Can be Taken Concurrently



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### **Information Tech**

## **Computer Science**

### **WDD121** Internet Design & Development

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the student to the overall methodologies of developing web sites. The history of the Internet, fundamentals of web design, and the HTML and CSS markup languages will be studied. Upon completion of this course, students should have an understanding of the web design and development process and be capable of hand coding a static website. CTAG approved CTIM004 effective fall 2017

### Pre-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

And Test & Score: Computer Test - 21

Or Test & Score: Compass Reading - 080

Or Test & Score: HS Computer Class - 2

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102

Or ITD100

## WDD121 INTERNET/INTRANET DES & DEV A

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course introduces the student to the overall methodologies of developing web sites. The history of the Internet, fundamentals of web design, the HTML markup language, and the CSS style sheet language will be studied. Specific topics covered include the basic HTML webpage, configuring text and color with CSS, adding images, and best practices in web design. Upon completion of this course, students should have an understanding of the web design and development process and be capable of hand coding a basic static website.

### **Pre-reqs:**

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Computer Test - 21

Or Test & Score: Compass Reading - 080

Or Test & Score: HS Computer Class - 2

Or Test & Score: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 2446



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### **Information Tech**

**Computer Science** 

### WDD121 INTERNET/INTRANET DES & DEV A

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course introduces the student to the overall methodologies of developing web sites. The history of the Internet, fundamentals of web design, the HTML markup language, and the CSS style sheet language will be studied. Specific topics covered include the basic HTML webpage, configuring text and color with CSS, adding images, and best practices in web design. Upon completion of this course, students should have an understanding of the web design and development process and be capable of hand coding a basic static website.

### Pre-regs:

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

IDS102

And ITD100

## WDD121 INTERNER/INTRANET DES & DEV B

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course introduces the student to the overall methodologies of developing web sites. The history of the Internet, basics of web design, the HTML markup language, and the CSS style sheet language will be studied. Upon completion of this course, students should have an understanding of the web design and development process and be capable of hand coding a basic static website. Specific topics covered include page layout with CSS, tables, forms, and web multimedia.

## Pre-reqs:

WDD121A

### WDD122 WEB GRAPHICS DESIGN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers creating and editing backgrounds and graphics for use on the internet. Students will learn appropriate design skills and techniques, design language and study color relationships through demonstrations and hands-on practice in order to reinforce the concepts as they use various leading edge technologies to create graphics. Upon completion of this course, students will be able to analyze web graphics and design; develop web graphics; optimize images for the web and understand the concepts of design as they relate to the web.

### **Pre-reqs:**

ECA228

Or WDD121

Or WDD121A

And WDD121B



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### **Information Tech**

**Computer Science** 

## WDD122 WEB DESIGN GRAPHICS A

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course covers creating and editing backgrounds and graphics for use on the internet. Students will learn appropriate design skills and techniques, design language and study color relationships through demonstrations and hands-on practice in order to reinforce the concepts as they use various leading edge technologies to create graphics. Upon completion of this course, students will be able to analyze web graphics and design.

### Pre-reqs:

ECA228

Or WDD121

Or WDD121A

And WDD121B

### WDD122 WEB GRAPHICS DESIGN B

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

This course covers in-depth web page layouts and how to create full web page designs using photo software. Students will be able to develop page layouts based on industry best-practices for design and optimization. Upon completion of this course, students will be able to develop web graphics; optimize images for the web and understand the concepts of design as they relate to the web as they use various leading edge technologies to create graphics.

## Pre-reqs:

WDD122A

# WDD221 Web Development w/ JavaScript

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces students to JavaScript along with current web technologies such as AJAX, jQuery, and JSON. Students will develop interactive websites using these technologies which provide for an excellent portfolio piece. Various assignments enhance the student's ability to master JavaScript along with many web development components. Hands-on labs are utilized to reinforce the presented materials.

### Pre-reqs:

**CSE122** 

And WDD121



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### **Information Tech**

**Computer Science** 

#### WDD222 ADVD CASCADING STYLE SHEETS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on developing web pages with the latest design and development techniques such as web pages created entirely using a CSS layout. Usability is emphasized as well as web site documentation. Hands-on labs are utilized to reinforce the presented materials.

### Pre-regs:

ECA228

Or WDD121

Or WDD121A

And WDD121B

### WDD223 Content Mgt System Des & Dev

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course teaches students to set up, design, and customize various open-source content management systems. In addition, students will be instructed on the various ways to add shopping cart functionality to those systems. Upon completion, students will be able to make customizations to various open-source content management systems.

## Pre-reqs:

Or CPD121

And ECA228

ECA253

Or WDD121

Or WDD121B

# WDD224 ACTIVE SERVER PAGE DEV

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on server side programming with ASP.Net. Students learn to connect to a database, add, update, and delete from the database, create user controls, master pages, XML driven site navigation and login pages. ASP.Net web controls are emphasized. Hands-on labs are utilized to reinforce the presented materials.

### Pre-regs:

Or CSE122

Or CSE122B



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### **Information Tech**

**Computer Science** 

#### WDD224 ACTIVE SERVER PAGE DEV

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on server side programming with ASP.Net. Students learn to connect to a database, add, update, and delete from the database, create user controls, master pages, XML driven site navigation and login pages. ASP.Net web controls are emphasized. Hands-on labs are utilized to reinforce the presented materials.

### Pre-regs:

And ECA127

ECA228

Or WDD121

Or WDD121B

### WDD225 ASP.Net MVC Development

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers advanced topics in the ASP.Net technology from Microsoft. Topics covered will be ADO.net, Converting data back and forth from XML, building custom controls and N-tier development. Several complete applications will be developed.

## Pre-reqs:

CSE122

And WDD121

### WDD226 WEB DEV WITH PHP AND MYSOL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students learn to develop server side scripts with PHP including developing various web applications and connecting to a MySQL database. Additional topics include the development and design of the MySQL database. Upon completion, students will be capable of utilizing PHP to develop web applications and connect to a MySQL database. Hands-on labs are utilized to reinforce the presented materials.

# Pre-reqs:

Or CSE122

Or CSE122B

And ECA127

ECA228

Or WDD121



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### **Information Tech**

**Computer Science** 

### WDD226 WEB DEV WITH PHP AND MYSOL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students learn to develop server side scripts with PHP including developing various web applications and connecting to a MySQL database. Additional topics include the development and design of the MySQL database. Upon completion, students will be capable of utilizing PHP to develop web applications and connect to a MySQL database. Hands-on labs are utilized to reinforce the presented materials.

### Pre-regs:

Or WDD121B

### WDD229 ADVANCED WEB DESIGN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on creating and coding advanced web designs with HTML and CSS. Advanced graphic techniques are introduced. Hands-on projects take the student from an initial concept to a graphic mockup and finally to a complete web page.

#### **Pre-reqs:**

ECA138

Or WDD122

### **Computer Security**

### CFS129 CRYPTOGRAPHY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the student to information security, potential threats to our information, and effective countermeasures to proactively combat those threats. A comprehensive review of cryptographic techniques is presented and explained in simple mathematical terms. Symmetrical and asymmetrical encryption, digital signatures, Kerberos, creation/deployment of strong keys and passwords, Virtual Private Networks, Tiny Encryption Algorithm (TEA) and other topics will be covered.

### Pre-regs:



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### **Information Tech**

**Computer Security** 

### CFS136 PRINC OF INFORMATION SECURITY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course examines the current standard of due care and best business practice in information security. Demonstrations and hands-on practice will reinforce topics such as evaluation and selection of security models, risk management, threat analysis, organizational technology evaluation, security implementation, disaster recovery planning and security policy formation and implementation. Upon completion, the students will be able to examine security technology, methodologies and practices. CTAG approved CTCYBR001, effective fall 2019

Pre-reqs:

### CFS137 COMPUTER CRIME AND INVESTIGATN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides an overview of cyber crime and computer related crime issues facing businesses and the criminal justice system. Demonstrations and hands-on practice will reinforce topics such as how computers are used in crime, interview techniques, search warrants, evidence handling, chain of custody, identification and recovery of computer data, report writing, case preparation, and courtroom testimony. Upon completion, the students will be able to understand government response to cyber crime issues from a law enforcement perspective.

#### **Pre-reqs:**

Or ECA145

NET120

## CFS140 BIOMETRIC APPLICATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will present an overview of the applications of Biometrics to Homeland Security and Information Security. Topics will include the application of Biometrics to airport security, border security, critical infrastructure, and commercial and consumer markets. Students will perform hands-on implementation of Biometric technologies.

**Pre-reqs:** 



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### **Information Tech**

**Computer Security** 

### CFS175 WHITE COLLAR CRIME

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will familiarize students with the various types of white collar crimes committed in the banking, health care and financial industry. Emphasis will be placed on recognition and investigation of white collar crime particularly those involving the use of information system resources.

Pre-regs:

### CFS256 DISASTR RCVRY AND INCIDENT PLN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is a detailed examination of the aspects of contingency planning operations. Demonstrations and hands-on practice will reinforce topics such as incident response-prevention, detection, reaction, disaster recovery, and business continuity. Upon completion, the students will be able to provide documentation for a disaster recovery plan.

**Pre-reqs:** 

# CFS257 FILE SYSTEMS ANALYSIS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is a comprehensive overview of contemporary volume and file systems. Topics include, discovering hidden evidence, recovering deleted data, data structures, and tool validation. Students will analyze example disk images, and participate in advanced investigation scenarios.

### Pre-regs:

Or CFS137



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### **Information Tech**

# **Computer Security**

### CFS258 CYBER FORENSCS AND DATA RECRVY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course presents methods to properly conduct a computer forensics investigation while mapping to the objectives of the International Association of Computer Investigative Specialist (IACIS) certification. Demonstrations and hands-on practice will reinforce topics such as finding evidence in file metadata, analyzing partitions and data structures, and identifying hidden data on a disk's Host Protected Area. Upon completion, the students will be able to gather evidence from disk images document findings.

### Pre-reqs:

CFS257

Or ECA257

### CFS275 ETHICAL HACKING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

In this course, students learn to discover weaknesses in operating environments using the well known hacking methods. Students will acquire the knowledge to systemically test and exploit internal and external defenses. Students will learn the countermeasures used to mitigate and reduce risk to enterprise networks. Students will be taught how to crack security systems so they can advise organizations on how to protect their systems.

# Pre-reqs:

Or ECA145

Or ECA277

NET120

And NET220

### CFS280 DIGITAL MEDIA FORENSICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The student will understand the methods and tools used in preserving, duplicating, imaging and validating data from peripheral devices such as cellular phones, PDAs, IPODs, and Blackberrys. In addition to this, attention will be given to the gathering of evidence from both hard wired and wireless networks devices. Students will practice the gathering of information from these devices using the appropriate methods and software to allow the information to be admissible in court.

# Pre-reqs:

**CFS137** 

Or ECA137



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### **Information Tech**

## **Computer Security**

## CFS286 UNIX/LINUX FORENSICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers typical methods of collecting, examining, and recovering data from typical UNIX style file systems. Methods for imaging and mounting file systems without changing data will be studied. Ways of monitoring system events and tracking intruders.

### Pre-reqs:

Or ECA277

**NET220** 

### CFS287 NETWORK FORENSICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to teach students the skills required to identify, acquire, and analyze data gathered from network devices using both passive and active tools. Emphasis will be placed on the use of open-source security tools to conduct an analysis of network activity to gather information relative to an investigation.

# Pre-reqs:

**CFS137** 

And NET121

And NET220

# DPH280 Photography Portfolio

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This capstone course will focus on developing a highly effective and professional quality photography portfolio from concept to final presentation. A portfolio is required.

## Pre-reqs:



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### IMT121 INTERACTIVE MEDIA

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines communication and storytelling through a variety of media, including visual design, sketching, storyboarding, 3D modeling, and sound design. Upon completion, students will present a previsualization of an original story idea through a series of audio, video, and design projects.

Pre-regs:

### IMT122 GRAPHIC ARTS DESIGN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Topics include effective communication through design from thought to finished process. Upon completion students will be able to effectively use Adobe Photoshop to create computer graphics. CTAG approved CTGRPH001 effective fall 2019

#### **Pre-reqs:**

Or Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

ITD100

### IMT122A GRAPHIC ARTS DESIGN A

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

Students successfully completing the Graphic Arts Design A (IMT122A) course will acquire a working knowledge of the concepts, components and composition necessary in the design of print media. They will learn effective communication through design, beginning with the concept and concluding with the finish product.

Pre-reqs:



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#### IMT122B GRAPHIC ARTS DESIGN B

Credit Hours: 1.5 Contact Hours: 2 Lecture Hours: 1 Lab Hours: 1 Other Hours: 0

Students completing the course will obtain functional and foundational knowledge of Adobe Photoshop CS3 and will use that software in the design materials for the course. Knowledge of the concepts and the software taught in this course are necessary for students interested in pursuing careers in Graphic Design, 3-D Design, Desktop Publishing and Animation.

### Pre-reqs:

IMT122A

# IMT125 3D GRAPHICS MODELING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Topics include 3d modeling, texturing, lighting, and rendering. Upon completion, the student will be able to effectively use the 3dsMax interface to create and render 3d objects and scenes. CTAG approved - CTIM007 effective spring 2015.

#### **Pre-reqs:**

IMT122

### IMT129 DIGITAL AUDIO RECG AND EDITING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the basics of audio recording and digital sound manipulation. Specific topics include waveform characteristics, basic recording techniques, and audio editing and mixing. Upon completion, students will be able to capture and modify audio to create music and sound designs for a variety of media including TV, radio, web, and game design. TAG approved Summer 2012 OCM007. CTAG approved effective summer 2012 CTMDA002

Pre-reqs:



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### **Information Tech**

**Computer Security** 

#### IMT131 COLOR THEORY AND DESIGN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the elements and principles of two-dimensional design, including the study of graphic design history, color theory and the elements and principles of design as it applies to the visual arts. Coursework will consist of lectures and discussions involving critiques on color theory and design concepts and applications. Class assignments emphasize creative problem solving techniques with specific limitations and specifications. CTAG approved CTVDI002, effective fall 2018.

Pre-reqs:

## IMT132 DIGTL PHOTOGRAPHY/GRAPHC&MEDIA

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course teaches the student the principles of digital still photography and enhances student skills in digital image manipulation. Topics covered include: focus, exposure, composition and lighting. Students must provide their own digital camera for the duration of the course. TAG approved course- OAH002

**Pre-reqs:** 

### IMT134 TECHNICAL MUSICIANSHIP

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers ear-training, sight-singing, basic keyboard techniques, and arranging. Upon completion, students will have developed the skills necessary to compose and arrange music using MIDI controllers and notation software.

Pre-regs:

IMT135

Can be Taken Concurrently



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### **Information Tech**

**Computer Security** 

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Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the basics of pitch and rhythm in music. Specific topics include meter, scales, keys, and intervals. Upon completion, students will have developed skills in diatonic ear-training, analysis, and notation.

Pre-regs:

### **IMT136 PRINCIPLES OF ANIMATION**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course teaches students established animation principles in a traditional 2D environment, bringing more life and appeal to any animation projects. These principles can directly applied to various animation technologies such as 3D, motion graphics, and web animation.

**Pre-reqs:** 

### IMT137 DRAWING BASICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers principles of drawing such as: line, shape, contour, volume, texture, perspective, and composition. Course will cover topics such as: drawing for realism, abstract drawing, storyboarding, and thumbnail sketching.

Pre-regs:



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### **Information Tech**

# **Computer Security**

### **IMT141** Typography Fundamentals

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces students to the practice of letterforms and typography as they apply to designs and visual communications. Students will learn the technical and aesthetic aspects of type as an integral design element and how to apply typographical concepts to page layouts. CTAG approved CTVDI001, effective Summer 2017.

### Pre-regs:

### IMT223 DIGITAL VIDEO RECORDING & EDIT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the production of digital video. Studio practice will include topics such as camera operation, lighting, and digital video editing. Working independently and in groups, students work on projects including documentary, short subject narratives, and editing exercises. TAG approved Summer 2012 OCM008. CTAG approved effective fall 2012, CTMDA003

#### **Pre-reqs:**

Or Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

ITD100

### IMT227 3D GRAPHICS ANIMATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students learn to create and render animations in a 3D development environment while exploring basic concepts such as Basic Keyframing, Curve Editors, and Object Hierarchy. Upon completion, the student will understand more advanced techniques such as the use of Constraints/Controllers, Bones Systems, and Facial Animation.

### Pre-regs:

And IMT125



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### **Information Tech**

**Computer Security** 

### IMT230 WEBCASTING AND MUSIC PUBLISHNG

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The goal of this course is for students to learn how market their music as widely and effectively as possible. The course covers the pros and cons of various file formats and how to create professional-quality files for distribution. The course also seeks to further the students' understanding of the details of music as a business. Aspects covered include preparing media for the web, distribution and synchronizing rights, licensing and copyright, and publishing in the internet age.

### Pre-regs:

IMT129

### IMT237 COMPOSITING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students learn how to create special effects using the green screen, mattes, alpha channels and masks, using special effects software. Upon completion, students will be able to effectively create special effects in various formats. Students will gain these skills through a series of labs and projects utilizing Adobe After Effects.

#### **Pre-reqs:**

IMT223

# IMT238 ADVANCED VIDEO PRODUCTION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course expands on the skills and techniques learned in Lighting & Cinematography. There will be more focus on the creation of HD video and DVD authoring. Student projects will be used to explore the latest techniques in the video industry. TAG approved Summer 2012 OCM010.

### Pre-regs:



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### **Information Tech**

**Computer Security** 

### IMT239 MUSIC SYNTHESIS I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces the basics of music synthesis. Specific topics include synthesizers, waveform processing, MIDI, MIDI controllers, sequencing, and composing. Upon completion, students will have developed skills in creating music and sound using sample libraries, synthesizers, and sequencing software.

### Pre-regs:

And IMT129

**IMT247** 

#### IMT240 ADVANCED 3D GRAPHIC MODELING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides the student with opportunities to learn and refine the 3D modeling, texturing, lighting, and rendering skills learned in earlier courses. Upon completion, the student will be able to effectively use the 3D software to interface to create and render various 3D graphic objects and characters.

# Pre-reqs:

IMT125

### **IMT242 LIGHTING AND CINEMATOGRAPHY**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the topics necessary to design videos from script to screen. Studio practice will reinforce topics such as exposure, composition, framing, and single camera production. Lighting topics include studio and field lighting techniques, artistic and functional lighting design and applications. Upon completion, the student will be able to plan, shoot, and edit short form videos in a variety of genres.

### **Pre-reqs:**



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#### **Information Tech**

**Computer Security** 

### IMT243 ADVANCED COMPOSITING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the design and integration of motion graphics with video. Studio projects will reinforce topics such as integration of 3D graphics with video, advanced animation techniques, filters and footage repair. Techniques learned will apply equally to game design and movie special effects. Students will gain these skills through a series of hands-on project utilizing Adobe After Effects and Autodesk 3DsMax.

#### **Pre-reqs:**

**IMT237** 

#### IMT244 DIGITAL PAGE LAYOUT AND DESIGN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course offers the student a foundation in layout and design for advertising, marketing, newsletter, and other publication materials. Emphasis on design principles for the creation of advertising and publishing materials such as letterheads, business cards, ads, fliers, brochures, and manuals. This capstone course will allow students to master design principles through the use of typography, effective use of color, special graphic effects and output considerations. Students will gain these skills through a series of hands-on projects utilizing Adobe inDesign.

#### **Pre-reqs:**

**IMT122** 

And IMT131

And IMT141

### IMT245 GRAPHIC ARTS DESIGN II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course expands on the skills and techniques learned in Graphic Arts Design. Additionally, there will be more focus on photographic enhancements; working with filters and other tools and options available to enhance graphics in this course. Upon completion of this course, students will develop further understanding and abilities to design and enhance both print and web media. Demonstrations and hands-on projects are implemented on the computer using Adobe Photoshop.

# Pre-reqs:



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#### **Information Tech**

**Computer Security** 

### IMT246 APPLIED MUSIC TECHNOLOGY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

A practical application of the student's knowledge of music, music technology, and computer software/hardware technology. The student will create a number of musical compositions assisted by MIDI software/hardware interfaces and merge these compositions with web sites, training videos, marketing presentations and other practical applications of software engineering technology.

## Pre-reqs:

IMT250

#### IMT247 MUSIC THEORY COMPOSITION II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the basics of harmony, form, and composition in music. Specific topics include triads and seventh chords, the harmonic system, church modes, part-writing, ear-training, basic chromaticism, and musical forms. Upon completion, students will be able to create 16 to 48-bar compositions in four-voice structure.

#### **Pre-reqs:**

IMT135

# IMT249 TEXTURES FOR 2D AND 3D

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the creation of professional-quality textures for both 2D and 3D design. Upon completion of this course, students will learn the art and design in the creation of these textures and effects, including basic designs, shortcuts and creating environmental textures. Design skills covered in this course will allow students to proceed to designing textures for 3D gaming among other applications. Learning will be facilitated through a series of projects using current application design software.

### Pre-regs:

And IMT122 IMT125



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### IMT250 MUSIC TECHNOLOGY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Building on the understanding of audio recording developed in IMT129, Music Technology emphasizes commercial music production with advanced discussions and implementation of mixers, digital recording devices, duplicators and software in a lab-based environment. Upon completion, the student will be able to analyze music production needs and create simple, viable presentations of their own projects.

### Pre-regs:

IMT129

#### IMT253 GRAPHICS FOR ILLUSTRATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Vector Graphics focuses on the creation and editing of resolution independent images. Students use digital drawing techniques to create vector graphics for the use in other interactive media projects or as independent compositions. Topics range from the creation of vector graphics through choosing the appropriate output method for their intended use. CTAG approved - CTGRPH002 effective fall 2019

#### **Pre-reqs:**

IMT122

# IMT254 PORTFOLIO DEVELOPMENT-IMT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This capstone course will focus on developing and completing complex print design projects and a portfolio. These projects are used to assess the students competencies and proficiencies acquired in the program. A portfolio is required.

# Pre-reqs:

**IMT244** 

Can be Taken Concurrently

And IMT245

And IMT253



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#### **Information Tech**

**Computer Security** 

### IMT255 ADVANCED ILLUSTRATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will expand on the skill learned in IMT253 and will focus on logo design and illustration design using Adobe Illustrator. Demonstrations will include hands-on projects produced by students to enhance their their understanding of vector artwork. Upon completion of this course, students will have an increased knowledge and understanding of Adobe Illustrator, logo design and illustration design.

## Pre-reqs:

Or ECA243

IMT253

#### IMT256 DIGITAL IMAGING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on both vector and raster graphics for screen based graphics. Course focuses include: graphics for video, graphics for presentations, image formatting, digital photo editing, pattern and texture creation, image optimization, and vector raster graphic integration techniques. Upon the completion of this students will understand of how to merge design technologies to create professional quality screen graphics.

# Pre-reqs:

IMT122

And IMT132

### **IMT259 MUSIC SYNTHESIS II**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This capstone course provides students with the skills and tools necessary to build advanced-level work in music synthesis. Upon completion, students will have completed three portfolio projects showcasing their skills in composing and arranging using synthesis, MIDI, and sequencing software.

## Pre-reqs:



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### **Information Tech**

**Computer Security** 

#### IMT260 LIVE SOUND

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Live Sound Technology studies the needs of audio reinforcement for the music venue. The student will study all aspects of live sound through advanced discussions and implementation of mixers, processors, and amplifiers in a lab-based environment. Upon completion, the student will be able to analyze music production needs and set-up and operate a sound system.

### Pre-regs:

IMT129

#### IMT261 ADVANCED MUSIC TECHNOLOGY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Advanced Music Technology requires students to utilize the skills they have developed throughout the Music Technology and Applied Music Technology classes. Students will refine their skills as music producers and engineers by completing regular homework assignments and four large-scale projects, designed to build professional-standard portfolios.

#### **Pre-reqs:**

IMT239

And IMT246

### IMT262 ADVANCED DIGITAL PHOTOGRAPHY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Continues the study of aesthetic and technical theories and techniques of digital photography. Topics include intermediate level exposure, composition, lighting, creativity and image editing and correction techniques. Projects require exploration and experimentation. Students will begin to develop a personal photographic style. Digital SLR camera required.

## **Pre-reqs:**



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#### IMT263 PHOTOGRAPHIC LIGHTING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course gives students an in-depth understanding of light in photography and how to use different lighting equipment and techniques to achieve desired effects in a final image. Topics of instruction include: correct exposure, lighting ratios, basic portraiture lighting, and studies in composition of commercial photographs.

### Pre-regs:

IMT132

#### IMT264 IMAGE MANAGMENT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students learn the essentials of professional digital photography for managing, adjusting and publishing small and larger volumes of digital photographs. This hands-on course takes students through a non-destructive professional editing workflow to fine tune photos with precise management tools and methods.

#### **Pre-reqs:**

IMT132

## **IMT265 MOTION GRAPHICS PORTFOLIO**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This capstone course will focus on developing and completing complex production projects and a portfolio. These projects are used to assess the student's competencies and proficiencies acquired in the program. A portfolio is required.

### Pre-regs:



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#### IMT266 FILM THEORY AND PRACTICE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The course will evaluate and dissect film from historical pictures to the modern day 3-D films. The course also covers the ideology and technology of film throughout history until the present day It allows critical thinking about how and why the film was made in addition to practicing those techniques and replicating them using today's post-processing software. Students will reconstruct the films that they study using today's technology.

### Pre-regs:

IMT121

#### IMT268 ADVANCED VIDEO EDITING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will begin with the history and significance and editing through the development of new technologies and nonlinear editing. It will cover theory and practice utilizing the industry standard editing software proram. The course will introduce advanced methods of editing and effects for the students, including multi-camera editing, color correction, and transitions.

#### **Pre-reqs:**

IMT223

# NET120 PC UPGRADING AND MAINTENANCE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The student will be working with various operating systems such as DOS, Windows 98, 2000 and XP. Student will also have hands-on experience building and repairing PC's in a lab environment. Hardware topics include: system board, microprocessors, busses, memory, disk drives, and power supplies.

Pre-regs:



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### NET121 INTRO TO COMP NETWORKING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Fundamentals of networking, which includes sharing computer resources, protocols, cables and adapters, E-mail, network, inter-operability and management is covered. Various network products are described and compared. CTIT007 Cisco I

### Pre-regs:

### NET131 MICROSOFT CLIENT OPERATNG SYS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Course includes installing and administering the Windows Operating Systems. It also covers security issues, installation troubleshooting, desktop issues, and desktop configuration.

#### **Pre-reqs:**

Or ECA145

Or ECA146

NET120

And NET121

# **NET137 Routing & Switching Essentials**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the basics of routing and switching. Course topics include implementation of VLAN's, inter-VLAN communication, VLAN Trunking Protocol, RSTP, static routing, an introduction to dynamic routing protocols and routing between networks. Essential network concepts including ACL's and advanced subnetting are also covered. CTAG - CTIT008

## Pre-reqs:



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## NET220 UNIX/LINUX OPERATING ENVIRONMT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers working at the Unix/Linux shell command line, customizing the shell environment, understanding basic filesystem structure and permissions, file management tools, basic shell scripting techniques, vi text editor, data processing tools, Xserver, Xwindows, remote machine access using SSH & FTP, compiling C programs under Unix, and formation of make files and the make command.

### Pre-regs:

**NET120** 

And NET121

#### NET244 MICROSOFT NETWORKING I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Course covers installing and configuring a Microsoft server operating system. Students will demonstrate skills necessary to implement a core infrastructure into an existing enterprise environment. Topics include working with Active Directory, implementing local storage, implementing file and print services, and implementing server virtualization with Hyper-V.

## Pre-regs:

Or ECA144

Or ECA145

NET120

And NET121

## NET245 MICROSOFT NETWORKING II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Course covers administering a Microsoft server operating system. Students will demonstrate skills necessary to administer an infrastructure in an enterprise environment. Topics include implementing group policies, managing user accounts, managing domain services, DNS, and remote access.

### Pre-regs:

Or ECA244



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### NET246 MICROSOFT NETWORKING III

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Course covers configuring advanced Microsoft server services. Students will master skills necessary to administer an infrastructure in an enterprise environment. Topics include implementing advanced network services, advanced file services, dynamic access control, network load balancing, failover clustering, and disaster recovery.

## Pre-regs:

Or ECA244

NET244

## **NET251 VOICE OVER IP FUNDAMENTLS**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will introduce students to the fundamental concepts of Voice over IP systems. Demonstrations and hands-on practice will reinforce topics including connectivity to legacy systems, quality of service, H.323, SIP, MGCP signaling, dial peers, and voice quantization. Upon completion, students will be able to identify VoIP components and configure analog to digital voice system.

# Pre-reqs:

**NET137** 

### NET253 SEC NTWK SWITCH AND ROUTERS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will introduce students to security topics and best practices on switches and routers. Demonstration and hands-on practice will reinforce topics including secure communications using IPSec and VPNs, Cisco IOS security, and identity based services. Upon completion, students will be able to implement layer 2 and 3 security, create secure lines of communication, and deploy threat defense using the Cisco IOS.

## **Pre-reqs:**



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### NET254 CISCO WIRELESS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces students to the wireless networking field and prepares them to take the CCNA: Wireless certification exam. Students will start the course working on small stand-alone wireless access points and as the course progresses, move into modular wireless network design using the Cisco Unified Wireless Network (CUWN) framework. Students are also introduced to the Cisco Wireless Control System (WCS) and Mobility Express Wireless Architecture.

## Pre-reqs:

**NET137** 

# **NET256** Scaling Networks

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on growing the network and using advanced routing protocols such as EIGRP and multi-area OSPF. Course topics include network design and its effects on growing networks including the need for link aggregation and DHCP, maintaining the network with IOS file management and layer-2 troubleshooting.

#### **Pre-reqs:**

**NET137** 

# **NET257** Connecting Networks

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on interconnecting LAN technologies across the Internet. Course topics include serial connections, T1's and DSL, creating multi-point frame relay and MPLS networks across a provider's network, monitoring, troubleshooting and security. CTIT010 Cisco IV

### Pre-regs:



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## NET264 UNIX/LINUX SYS ADMIN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers administration and configuration of UNIX and/or LINUX operating systems. Topics include: adding/maintaining user accounts, bootup, shutdown, runlevels, daemons, backup and restoring files, basic network configuration, policies and ethic, process control, file systems, log files. During the lab, the student will install LINUX on a personal harddrive and be the administrator of their personal system. Students will add users, schedule cron jobs, add file systems to their system, etc.

## Pre-reqs:

Or ECA277

**NET220** 

### NET265 UNIX/LINUX SHELL SCRIPTING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students learn how to combine standard UNIX commands and utilities together in Bourne style shell scripts for automation of system administration tasks and data manipulation and reporting. Emphasis is on redirection, looping, command substitution, redirection, process control and regular expressions. Other topics addressed include database interaction, various markup languages (LateX and HTML), perl, awk, and sed scripting.

# Pre-reqs:

Or ECA277

NET220

### NET266 UNIX/LINUX NETWORK ADMIN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course addresses administration and configuration of network server software found on the UNIX and/or LINUX operating systems. Students will install a LINUX server of their personal hard drives, setup various types of network servers. Many labs will require students to work together to test each other's server configurations Server topics include: DNS, xinetd, electronic mail, network file sharing, etc. Security topics include: iptables, PAM, tripwire and tiger.

### Pre-regs:

Or ECA277



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#### **Information Tech**

**Computer Security** 

#### NET280 WEB SERVER ADMINISTRATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the installation and configuration of the Apache web server and the server handware that supports it. Demonstrations and hands-on practice will reinforce topics such as virtual hosts, authentication, virtual domains, CGI, PHP, and SSL. Upon completion, students will be able to administer the hardware and operating environment of web servers.

### Pre-regs:

Or ECA274

Or ECA276

NET264

Or NET266

#### NET281 FIREWALL AND NETWORK SECURITY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides the technology essentials for a web developer to design and develop secure E-Commerce solutions. Techniques such as the Luhn Algorithm and 128 bit encryption will be explored and implemented.

# Pre-reqs:

**NET137** 

## **Sciences**

**Biology** 

#### BIO101 INTRO TO ANAT AND PHYSIO

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Provides understanding of human structure and function of all body systems. Focus will be given to beginning chemistry principles, cells and tissues. This course is for the student who has little or no background in human anatomy and physiology. TMNS Approved effective Autumn 2008.

#### **Pre-regs:**

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

Or Test & Score: Compass Reading - 080

Or Test & Score: GED Reasoning Through Lang Art 1



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#### **Sciences**

**Biology** 

### BIO101 INTRO TO ANAT AND PHYSIO

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Provides understanding of human structure and function of all body systems. Focus will be given to beginning chemistry principles, cells and tissues. This course is for the student who has little or no background in human anatomy and physiology. TMNS Approved effective Autumn 2008.

## Pre-reqs:

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: NextGen Accuplacer Reading - 244

Or Test & Score: Reading Proficiency - 3

Or Test & Score: SAT Verbal - 480

**IDS102** 

### BIO121 ANATOMY AND PHYSIOLOGY I

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

The human body is presented as an integrative, homeostatic organism with emphasis on the underlying chemical and cellular processes necessary for proper functioning. The course covers basic histology and examines the following systems: Integumentary, muscular, skeletal, central nervous, and somatic nervous. The laboratory portion of the course includes microscopic study of tissues, detailed study of bone models and human cadaver muscles, and examination of preserved mammalian specimens. This is the first course in a two semester sequence.

#### Pre-regs:

Or Test & Score: HS Biology - 2 BIO101

# BIO122 ANATOMY AND PHYSIOLOGY II

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This is the second course of a two-semester anatomy and physiology sequence, focusing on the influences of the autonomic nervous and endocrine systems upon the cardiovascular, lymphatic, respiratory, renal, digestive and reproductive systems. Introductory immunology, fluid/electrolyte, and acid-base balance concepts are included. The laboratory portion includes continued study of the human cadaver and preserved mammalian organs, examination of physiological processes, conduction of wet labs, and presentation of case studies, which allow the student to compare and contrast normal physiologic mechanisms with basic pathophysiology.

### Pre-regs:

BIO121

Or BIO123



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**Sciences** 

**Biology** 

### BIO123 PRIN OF HUM STRUCT AND FUN

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 4 Lab Hours: 3 Other Hours: 0

A one-semester accelerated anatomy and physiology course which introduces the human body at the chemical, cellular, tissue, organ and system levels of organization. Emphasis is placed on the relationships and maintenance of homeostasis between the systems. The laboratory includes microscopic study of tissues, detailed study of the human cadaver and preserved mammalian organs, conduction of wet labs, and the application of selected physiological processes.

## Pre-reqs:

Or Test & Score: HS Biology - 2 BIO101

### **BIO124 HUMAN DISEASES**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course encompasses the etiology, pathogenesis, manifestations and basic treatment of diseases and disorders of the human body. Special attention is given to organic and infectious diseases as well as immune dysfunction and neoplasia. Case studies are utilized to gain an understanding of disease processes and treatments. TAG approved course - OHL019 effective Summer 2010.

# Pre-reqs:

BIO122

Or BIO123

### **BIO125 MEDICAL TERMINOLOGY**

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An introduction to medical word structure, including prefixes, suffixes, roots, plurals and abbreviations. Spelling, definitions and pronunciation are stressed and reinforced by frequent examination. TAG approved course-OHL020 effective Spring 2011 CTAG approved course - CTMT001 effective Spring 2011



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**Sciences** 

**Biology** 

## BIO126 SCIENCE/ENERGY AND THE ENV

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Utilizing interdisciplinary and theme-based learning, this course examines major environmental and energy problems and evaluates possible solutions to those problems. Topics include biodiversity, human population growth, water, air, and soil pollution, and hazardous and solid wastes. Emphasis is placed on cooperative learning, analytical thinking and problem-solving as students examine environmental issues. Laboratory and field experiences reinforce the basic ecological principles. TMNS Approved effective Autumn 2008.

Pre-reqs:

#### **BIO127 HUMAN BIOLOGY**

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

Human Biology presents the human as an organism as it relates to itself, to other humans, and to the environment. Lecture will present the scientific study of the human body including the aging process. Observations about the human at the chemical, cellular and systemic levels will be made in the laboratory incorporating a variety of laboratory experiences and may include the observation of human cadavers and other preserved specimens as learning tools. Practical work and group learning strategies will be used to facilitate evaluative learning in both the lecture and lab. The course will guide the student in a multidisciplinary study of the biology of human life. TMNS Approved effective Autumn 2008.

Pre-regs:

## **BIO128 CLIMATE STUDIES**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

An introductory science course designed to familiarize students with the basics of climatology. The course focuses on the principles of the natural world and the dynamics of climate change. The impact of human activities on climate and the global system will also be explored. Real-world environmental data from the National Weather Service and historical climate records will be used to investigate, analyze, and interpret the effects of climate on our natural and human ecosystems.



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**Sciences** 

**Biology** 

### BIO129 METEOROLOGY

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

An introductory science course designed to familiarize students with the basic facts, theories, and methods relating to the study of meteorology. This course will focus on the principles of the natural world and the causes of weather. Students will apply these principles by analyzing and interpreting the effects of the atmosphere on our natural and human ecosystems using real-time data from the National Weather Service. This course will also analyze the effects of various human activities upon weather and the global system.

Pre-regs:

### **BIO130 OCEAN STUDIES**

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

An introductory science course designed to examine the world's oceans from an earth science perspective. Students will use real-world ocean information to explore the physical, chemical, biological, and geographical properties of oceans and investigate the interactions between the oceans and the hydrosphere, atmosphere, lithosphere, and biosphere.

**Pre-reqs:** 

# BIO141 GENERAL BIOLOGY I

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

Explores general biological structures and processes experienced by all living things. Topics include: Organization of life from sub cellular to systems homeostasis, how cells harvest energy and the fundamentals of molecular biology that drive genetic inheritance, evolution and population diversity. Supporting laboratory aligns with lecture topics and includes: quan/qual analysis of biomolecules, observing plant and animal cell structure and function, basic genetic analysis and examination of population dynamics. TAG approved course-OSC024-Biology Sequence, effective Spring 2008. TAG approved course-OSC003, effective Summer 2017



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**Sciences** 

**Biology** 

#### BIO142 GENERAL BIOLOGY II

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

This course explores general biological problems and processes as they are experienced by all living organisms: plant and animal diversity, evolution, basic plant and animal systems, hormones, immunology, and ecology. Specific topics for this course include origins and biodiversity of life through an evolutionary survey of viruses, bacteria, plants and animals; the principles of biological classification; the identification and dynamics of biological ecosystems; and the design and reporting of biological research. The supporting laboratory aligns with lecture and topics include examination and dissection of representative organisms to show evolutionary progression; exploration of phylogenetic concepts and analysis; and evaluation of local ecosystems to identify population dynamics and the effects of pollution. Students will design, conduct, and report the results of a research experiment using the scientific method. TAG approved course-OSC024, Biology sequence effective Spring 2008. TAG approved OSC004, effective Summer 2017. TMNS approved-effective Summer 2016

## BIO200 Ecology

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

This course will include topics that cover natural history and evolution, adaptations to the environment, population ecology, inter- and intra-species interactions, communities and ecosystems, and large-scale ecology including landscape, geographic, and global ecology. A supporting laboratory will apply lecture topics in laboratory and field experiences including ecological sampling and analyses, identifying, visiting, and evaluating local ecosystems, and analyzing current environmental issues such as global warming, habitat fragmentation and destruction, extinction of species, human population growth, and depletion of global natural resources. Students will learn about and apply the scientific method by conducting environmental research experiments. TMNS approved, effective Summer 2016

### Pre-regs:

BIO142

### BIO221 PRINC OF MICROBIOLOGY

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

This course examines microbial structure and function with particular emphasis on medical microbiology. Content includes taxonomy, identification procedures, microbial growth and control, microbial genetics and the epidemiology of common infectious diseases. The laboratory experiences include staining, culturing and aseptic techniques, as well as various diagnostic procedures. TMNS Approved effective Autumn 2008.

# Pre-reqs:

BIO122

Or BIO123

Or BIO141



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#### **Sciences**

**Biology** 

### BIO222 PHARMACOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A course that introduces the student to general pharmacology, including drug nomenclature, classifications, and therapeutic and side effects on the body systems and functions.

### Pre-regs:

BIO122

Or BIO123

#### BIO241 GENERAL GENETICS

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

General Genetics uses the principles of Mendelian, molecular, and population genetics to explore the mechanisms of heredity. Topics include: the structure and function of genes, classical genetic transmission, eukaryotic and prokaryotic genetics, gene regulation and control, population genetics, gene mapping, and recombinant DNA technology. Supporting laboratory aligns with lecture topics and includes: basic genetic analysis, experiments in microbial and Drosophila genetics, quantitative and computer simulated analysis of population genetics and molecular genetics techniques. (TMNS, Effective Summer 2013)

# Pre-reqs:

BIO141

### BIO242 CELL AND MOLECULAR BIOLOGY

Credit Hours: 4 Contact Hours: 6 Lecture Hours: 3 Lab Hours: 3 Other Hours: 0

Cell and Molecular Biology will explore various principles of cell structure and function. Topics include energy and metabolism, protein structure and function, and the fundamentals of molecular biology that contribute to genetic inheritance and diversity within organism populations. A supporting laboratory aligns with lecture topics and includes observation of plant and animal cell structure, analysis of metabolic processes, analysis of genetic inheritance patterns and their influence on population diversity, and basic molecular biology techniques.

## **Pre-reqs:**

BIO141



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#### **Sciences**

**Biology** 

#### CST120 COMPUTATIONAL SCIENCE METHODS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The purpose of this course is to introduce the student to basic mathematical concepts relevant to computational science. The course will cover basic statistical analysis and mathematical operations as applicable to the study of science. Data analysis will include fitting data with mathematical functions and developing first and second order differential equations. Other topics relevant to computational science will also be presented, such as recognition of sources of computer error.

#### **Pre-reqs:**

MTH135

Can be Taken Concurrently

Or MTH135A

And MTH135B

#### CST121 MODELING AND SIMULATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 3 Lab Hours: 1 Other Hours: 0

Analyze a variety of scientific problems by designing a representative model, implement the model, complete a verification and validation process of the model, report on the model in oral and written form, and changing the model to reflect corrections, improvements and enhancements.

### Pre-regs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: SAT Mathematics - 640

MTH221

Or MTH223

# CST221 COMPUTATIONAL BIOLOGY

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course is designed to introduce the student to the field of computational biology through the use of basic modeling and simulation modules utilizing existing computer programs. The course will incorporate mathematical methods and computer science skills to model simple biological life processes and simulate outcomes. The use of statistical analysis techniques will aid in the interpretation of data. Integration of lecture and computer lab time will allow for exploration of existing databases and model manipulation.

## Pre-regs:

CST121



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**Sciences** 

**Biology** 

#### GEO141 PHYSICAL GEOLOGY

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Investigation into the physical earth materials and processes. These processes include mineral formation, igneous rock and metamorphic deformation associated with plate tectonics, sedimentary rock formation and geologic time, geomorphology of the surface rocks through hydrologic processes including weathering, mass wasting and erosion. Emphasis on recognizing the impacts of earth science on society. Supporting lab to emphasize the use of technology in earth science, topographic and geologic map reading skills, and identification of minerals and rocks. TAG approved OSC025, effective spring 2018

Pre-reqs:

## SCI273 Special Topics in Science

Credit Hours: 3 Contact Hours: 9 Lecture Hours: 0 Lab Hours: 9 Other Hours: 0

A sophomore level science capstone course designed for students pursuing an Associate of Science Degree within one of the Sciences degree programs. This course will provide a cumulative experience where students can apply the scientific skills and knowledge gained in the program to perform an inquiry-based project. The exact location, scope of the project, and method(s) of evaluation will be provided in a contract drawn up between the student, the faculty mentor, and if applicable, the host internship supervisor. An emphasis will be placed on the individual interactions between the student and the faculty mentor and/or internship supervisor. All students are expected to apply and expand on their current scientific knowledge, while learning the basic skills involved in project management. Registration for this course requires sophomore standing.

Pre-regs:

### Chemistry

### CHM100 Exploring Science & Technology

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course is designed for non-science majors and intended to develop an understanding of basic chemistry concepts and applications important to technology and society. Topics include air and water quality, the chemistry of global climate change, petroleum and natural gas, acid rain, polymers, fuel cells, drugs, nutrition, and genetic engineering. Laboratory experiments and research projects will reinforce cooperative learning, the utilization of the scientific method, problem-solving skills, and critical thinking skills. TMNS approved effective Summer 2016



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#### **Sciences**

## Chemistry

### CHM101 INTRO TO CHEMISTRY

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

A problem-solving course to familiarize the student who has limited previous chemistry background with basic chemistry and mathematical skills. Course covers basic algebra skills, powers of ten (exponents), dimensional analysis, metric measurements and conversions, atomic theory, molecular structure, the periodic table and its uses, inorganic nomenclature, the mole concept, the gas laws and different types of solutions. The recitation portion of this class will involve pertinent problem-solving. TMNS Approved effective Autumn 2008.

## Pre-reqs:

Or Test & Score: ACT Math - 22

Or Test & Score: Accuplacer College-level Math - 055

Or Test & Score: Accuplacer Elementary Algebra - 108

Or Test & Score: HS Chemistry - 2

Or Test & Score: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: HS Math Proficiency - 3

Or Test & Score: NextGen Accuplacer AAF Math - 250

Or Test & Score: NextGen Accuplacer QAS Math - 263

Or Test & Score: SAT Mathematics - 530

MTH022

Or MTH023

Or MTH105

Or MTH107

### CHM105 Intro to Forensic Science

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to introduce students to the study of forensic science and crime scene investigation. It will cover basic general chemistry and biochemistry topics with an emphasis of applying the scientific method to investigating crime. The class will follow evidence from the time it is discovered at a crime scene until it is involved in a court case. Students will learn forensic methods required to assess, test and present evidence. The laboratory experiments presented are designed to teach critical thinking and laboratory skills necessary to ensure safety and protect crucial evidence. TMNS approved, effective Summer 2016.



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#### **Sciences**

## Chemistry

### CHM121 GEN/ORG AND BIOL CHEMISTRY I

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Principles of general and inorganic chemistry are presented in lecture. Topics include atomic structure, chemical bonding and compounds, energy changes, gas laws, solutions, and acids and bases. The laboratory experiences include basic scientific measurements, physical property measurements, inorganic physical and chemical change observations and laboratory reporting. Ohio Transfer Module Approved Effective Autumn 2008.

# Pre-reqs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: HS Chemistry - 2

Or Test & Score: Compass Algebra - 039

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250

Or Test & Score: SAT Mathematics - 510

CHM101

Or MTH024

Or MTH025

Or MTH105

Or MTH107

# CHM121A GEN, ORG AND BIOL CHEMISTRY IA

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

A broad overview of inorganic chemical principles. Topics include significant figures, atomic structure, chemical bonding and molecular structure of inorganic compounds. TMNS approved Spring 2012.

### Pre-regs:

Or Test & Score: HS Chemistry - 2 CHM101



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#### **Sciences**

## Chemistry

### CHM121B GEN, ORG, AND BIO CHEMISTRY IB

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

A broad overview of inorganic chemical principles. Topics include energy changes, gas laws, soluability, solutions and acids and bases. TMNS approved Spring 2012.

### Pre-regs:

CHM121A

### CHM122 GEN/ORG AND BIOL CHEMISTRY II

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

The course examines the structures, names, reactions and physical properties of the major groups of organic and biological compounds including alkenes, alkynes, aromatics, alcohols, ethers, aldehydes, ketones, carboxylic acids and esters and biological compounds including carbohydrate lipids, proteins and nucleic acid molecules. Basic metabolic reactions, including dehydration synthesis, hydrolytic digestion and biooxidations are described. Laboratory exercises demonstrate the properties and reactions of the compounds studied in lecture. TMNS Approved Effective Autumn 2008.

#### **Pre-reqs:**

CHM121

Or CHM121A

And CHM121B

# CHM141 GENERAL CHEMISTRY I

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

An introduction to the fundamental principles of chemistry, including measurement and calculation, chemical stoichiometry, the properties of gases, atomic and molecular structure, bonding, thermochemistry, and periodic properties. OSC023 sequence & OSC008, effective Summer 2017 OTM approved for TMS Spring 2011.

### Pre-regs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer College-level Math - 040

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: HS Chemistry - 2

Or Test & Score: Compass Algebra - 039

Or Test & Score: NextGen Accuplacer AAF Math - 237

Or Test & Score: NextGen Accuplacer QAS Math - 250



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#### **Sciences**

## Chemistry

#### CHM141 GENERAL CHEMISTRY I

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

An introduction to the fundamental principles of chemistry, including measurement and calculation, chemical stoichiometry, the properties of gases, atomic and molecular structure, bonding, thermochemistry, and periodic properties. OSC023 sequence & OSC008, effective Summer 2017 OTM approved for TMS Spring 2011.

## Pre-reqs:

Or Test & Score: SAT Mathematics - 510

CHM101

Or MTH024

Or MTH025

#### CHM141A GENERAL CHEMISTRY I A

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

An introduction to the fundamental principles of chemistry, including measurement and calculation, chemical stoichiometry, atomic and molecular structure, bonding, thermochemistry and periodic properties.

# Pre-reqs:

Or Test & Score: HS Chemistry - 2 CHM101

## CHM141B GENERAL CHEMISTRY I B

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

A continuation of the study of the fundamental principles of chemistry, including chemical stoichiometry, the properties of gases, atomic and molecular structure, bonding and periodic properties.

### Pre-regs:

CHM141A



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#### **Sciences**

## Chemistry

#### CHM142 GENERAL CHEMISTRY II

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

A continuation of the study of the principles of chemistry, including solution properties, acids and bases, chemical equilibrium, thermodynamics, reaction kinetics, organic chemistry, and electrochemistry. This course is Ohio TAG approved. OSC024 sequence & OSC009, effective Summer 2017. Ohio Transfer Module Approved Spring 2012 TMNS.

### Pre-regs:

**CHM141** 

Or CHM141A

And CHM141B

## CHM205 Forensic Chemistry

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course introduces students to the techniques of forensic chemistry, particularly as they relate to crime scene investigation and ongoing analysis of evidence obtained after a crime is committed. The course is an integrated study of forensic science in the areas of chemistry, toxicology, and trace analysis. The topics include but are not limited to drugs, poisons, colorants, paints, polymers, and ink. Chemistry and biochemistry concepts will be used in the forensic analysis of materials and in the chemical analysis of evidence using qualitative and quantitative analysis. The laboratory experiments in the course are designed to help students gain experience in the use of current analytical methods that are used to analyze evidence during criminal investigations. In addition to the qualitative analytical techniques, the course will explore how instrumental analysis can be used to determine the identity of a drug or poison. TMNS approved-effective Summer 2016

### Pre-regs:

CHM105

Or CHM121

Or CHM141

# CHM241 ORGANIC CHEMISTRY I

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

A broad overview of chemical principles and reactivity of organic compounds. Topics include structure, bonding, nomenclature, reactions, reaction mechanisms, and synthesis of alkanes, alkenes, alkynes, alkyl halides, and aromatic compounds. Additional topics include stereochemistry and an introduction to spectroscopic techniques such as UV, IR, NMR, and mass spectroscopy. TAG OSC010 approved Summer 2018.

#### **Pre-regs:**

CHM142



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**Sciences** 

Chemistry

### CHM242 ORGANIC CHEMISTRY II

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 3 Lab Hours: 4 Other Hours: 0

A continuation of the study of chemical principles and reactivity of organic compounds. Topics include structure, bonding, nomenclature, reactions and reaction mechanisms of aromatic compounds, alcohols, phenols, ethers, epoxides, amines, aldehydes, ketones, carboxylic acids and carboxylic acid derivatives. Additional topics include reactions and synthesis of biomolecules such as carbohydrates, amino acids, proteins, lipids, nucleic acids and synthetic polymers. The use of modern spectroscopic techniques such as IR, NMR, and mass spectroscopy also will be included. TAG OSC010 approved Summer 2018.

### Pre-regs:

**CHM241** 

#### CHM243 BIOCHEMISTRY I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will cover the biochemical mechanisms involved in chemistry of amino acids and proteins, human immune system, catalysis and enzymes, carbohydrate and glycogen metabolism, lipids and biological membranes, and energetics of metabolic reactions.

#### **Pre-reqs:**

CHM121

Or CHM141

# CHM244 BIOCHEMISTRY II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

: As a continuation of Biochemistry I, CHM 243, this course will cover the biochemical mechanisms involved in the chemistry of amino acids metabolism, biosignaling, photosynthesis and CO2 fixation, genetics, structure of nucleic acids, replication, transcription and translation processes, gene expression, recombinant DNA technologies and mutations.

## Pre-reqs:

CHM243

### **Physics**



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#### **Sciences**

## **Physics**

### PHY101 PRINCIPLES OF PHYSICS

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Survey course that assumes no familiarity with physics. Space, time, matter, motion, force, momentum, mechanical energy, heat, electricity, magnetism, light, units of measure and other concepts are studied descriptively. Basic calculation and problem-solving techniques are introduced, including a brief review of elementary algebra. Laboratory work emphasizes how to read measuring instruments, proper use of measured data in calculations, and how measured data can be used to test theories of physics. TMNS Approved effective Autumn 2008.

- Or Test & Score: ACT Math 22
- Or Test & Score: ACT Reading 18
- Or Test & Score: Accuplacer College-level Math 055
- Or Test & Score: Accuplacer Elementary Algebra 108
- Or Test & Score: Accuplacer Reading 070
- Or Test & Score: Compass Algebra 052
- Or Test & Score: Compass Reading 080
- Or Test & Score: GED Mathematical Reasoning 1
- Or Test & Score: GED Reasoning Through Lang Art 1
- Or Test & Score: IDS Transfer Prof/Placement 3
- Or Test & Score: HS Math Proficiency 3
- Or Test & Score: NextGen Accuplacer AAF Math 250
- Or Test & Score: NextGen Accuplacer Reading 246
- Or Test & Score: NextGen Accuplacer QAS Math 263
- Or Test & Score: Reading Proficiency 3
- Or Test & Score: SAT Mathematics 530
- And IDS102
  - MTH024
- Or MTH025
- Or MTH105
- Or MTH107



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#### **Sciences**

**Physics** 

#### PHY105 Astronomy

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This class is a study of fundamentals of astronomy. Topics include: the solar system, planets, stars, galaxies, and the universe. This course is a comprehensive survey of astronomy designed primarily for the non-science major. Pivotal discoveries discussed in class are reinforced through lab activities that replicate topic-related studies. This course should provide the student with an understanding of the nature of the universe and insight into the scientific fields that provide the evidentiary basis for modern cosmological theories.

## Pre-reqs:

### PHY121 COL PHYSICS I W ALG

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

Study of motion, force, momentum, energy, mechanical advantage, structure and properties of matter, fluids, heat. Problem-solving in orientation, emphasizing the application of formulas, algebra, and trigonometry to physical situations. Laboratories focus on the correct reading of measuring instruments, proper handling of measurement in calculations, and testing physical theories using measured data. TAG approved course- OSC021(Not for Physics majors) approved Spring 2008. TAG approved course - OSC014 (not for Physics majors) approved Spring 2008. TMNS Approved effective Autumn 2008.

#### **Pre-reqs:**

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: SAT Mathematics - 640

Or MTH125

Or MTH125B

And MTH130

And MTH130

MTH135

Or MTH135B



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#### **Sciences**

**Physics** 

### PHY121A COL PHYSICS IA W ALG

Credit Hours: 2 Contact Hours: 2.5 Lecture Hours: 1.5 Lab Hours: 1 Other Hours: 0

Study of motion and force. Problem-solving in orientation, emphasizing the application of formulas, algebra, and trigonometry to physical situations. Laboratories focus on the correct reading of measuring instruments, proper handling of measurement in calculations, and testing physical theories using measured data. TMNS approved Spring 2012.

## Pre-reqs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or Test & Score: NextGen Accuplacer AAF Math - 276

Or Test & Score: SAT Mathematics - 640

Or MTH125

Or MTH125B

And MTH130

And MTH130

MTH135

Or MTH135B

## PHY121B COL PHYSIC I BW ALG

Credit Hours: 2 Contact Hours: 2.5 Lecture Hours: 1.5 Lab Hours: 1 Other Hours: 0

Study of motion, force, momentum, energy, mechanical advantage, structure and properties of matter, fluids, and heat. Problems-solving in orientation, emphasizing the application of formulas, algebra, and trigonometry to physical situations. Laboratories focus on the correct reading of measuring instruments, proper handling of measurement in calculations, and testing physical theories using measured data. TMNS approved Spring 2012.

### Pre-regs:

PHY121A



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### **Sciences**

**Physics** 

# PHY122 COL PHYSICS II W ALG

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

General topics are waves, electricity, magnetism (including circuits), electromagnetic radiation (including light). Emphasis exercises and problem solving using formulas, algebra, and some trigonometry. Laboratories focus on the correct reading of measuring instruments, proper handling of measurements in calculations, and testing whysical theories using measured data.

## Pre-reqs:

**PHY121** 

Or PHY121A

And PHY121B

#### PHY221 GEN PHYSICS I W CALC

Credit Hours: 5 Contact Hours: 6 Lecture Hours: 4 Lab Hours: 2 Other Hours: 0

Study of mechanics, heat and thermodynamics, oscillations and sound. Problem solving in orientation, emphasizing the application and derivation of formulas using calculus for physical situations. Laboratories focus on the correct reading of measuring instruments, proper handling of measurement in calculations, and testing physical theories using measured data. TAG approved Fall 2012 OSC016.

### Pre-regs:

MTH223

And MTH224

Can be Taken Concurrently

#### PHY222 GEN PHYSICS II W CALC

Credit Hours: 5 Contact Hours: 6 Lecture Hours: 4 Lab Hours: 2 Other Hours: 0

Study of electricity, magnetism, light, optics, and modern physics. Problem solving in orientation, emphasizing the application and derivation of formulas using calculus for physical situations. Laboratories focus on the correct reading of measuring instruments, proper handling of measurement in calculations, and testing physical theories using measured data. TAG approved Spring 2013 OSC017

## Pre-reqs:

And MTH224

And MTH225

Can be Taken Concurrently

PHY221