Stark State
COLLEGE

2017-18 CATALOG

Stark State
COLLEGE

Accredited by the
Higher Learning Commission

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Stark State COLLEGE

Ohio | Department of Higher Education

John R. Kasich, Governor
John Carey, 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 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

Stark State
COLLEGE

Administrative Officers

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President, Stark State College

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Vision Statement

Stark State College will be a leader in higher education and a catalyst for economic growth and prosperity in the communities we serve.

Mission Statement

Stark State College provides quality, high-value associate degrees, certificates, and professional development in diverse, student-centered learning environments. The College is dedicated to lifelong learning; affordable, transferable higher education; and career success. Stark State College advances quality of life through access, academic success, stewardship, and business and community partnerships.

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 250 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. in its technology and test center 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

- In addition to our main campus location in North Canton, Stark State offers easy access to affordable education to Akron-area students with a location at 755 White Pond Drive as we transition to a new 50,000-square-foot building at 360 Perkins St. set to open its doors in the fall of 2018. Our Barberton Satellite Center also offers general education classes in addition to hands-on, 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 Stark State student fits the profile of the typical two-year college student in the nation: 57% of SSC students are female, 73% attend college part time, 18% are minorities and 49% are the first generation in their families to attend college. The average age of Stark State's students is 25, and the majority of our students hold jobs while in school.

The College has more than 180 full-time faculty and more than 330 adjunct faculty. More than 59% of the College's full-time faculty members have master's degrees and approximately 18% 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.

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): 1248 Harwood Road, Bedford, TX 76021-4244; 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 www.sss.gov 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.

–OR–

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 www.starkstate.edu/finaid 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 www.starkstate.edu/orientation. 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:

1. 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 questions.

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
b. 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.
   a. 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)
   b. IELTS (International English Language Testing System): Minimum score of 6.0
   c. 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
5. 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.
c. 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.

6. 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.

ACADEMIC ADVISING

The academic advising process at Stark State College is a significant aspect of student development. More than helping schedule courses, this process helps students fulfill their potential. To achieve this objective, faculty and student success coaches are available to advise students in person or online. Every faculty member is an advisor to students enrolled in his/her course. The faculty member is the best source of information pertaining to a course. Students enrolling for 21 or more credit hours must have an academic advisor's signature. Students are encouraged to meet with their student success coach or academic advisor prior to registering for classes.

Depending on student need, the academic advising process may involve

- analysis of the student's long-range aspirations, goals and abilities
- analysis of educational and career objectives
- selection of academic major
- planning course sequence in academic major
- class scheduling
- continuous assessment and possible referral

PLACEMENT TESTING

Every first-time Stark State College degree-seeking student is required to take the ACCUPLACER exam unless he/she 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 www.starkstate.edu/satellites 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 Development

The Career Development Office at Stark State College is dedicated to impacting employment outcomes by empowering students and alumni to make an informed career choice and develop career planning and job search skills. It also helps facilitate mutually beneficial relationships between employers, students, alumni and the community.

The Career Development Office provides

- current information on job search materials and techniques
- information on employers for job search preparation
- information on various careers and online career resources

JOB SEARCH ASSISTANCE

The Career Development Office offers one-to-one assistance on all aspects of the job search. This assistance includes help with resumes, cover letters, interviewing skills and other related topics.

SEASONAL AND PART-TIME JOB LISTINGS

Seasonal and part-time job listings are compiled in a book, which can be found in the Career Development Office. The office copies notices of job openings received from area employers and individuals, which may help students finance their education.

ONLINE JOB BOARD (COLLEGE CENTRAL NETWORK)

Approved students and alumni are eligible to use the Stark State College online job board after completing a registration process. Once registered, students/graduates will be able to search jobs and email a resume to employers 24 hours a day, seven days a week. Employers also will be able to search resumes and contact candidates directly for job opportunities. All students are encouraged to meet with a career development representative to learn more about College Central Network.

PROFESSIONAL WORK EXPERIENCE/INTERNSHIPS

The Career Development Office works with students to help them connect with employers for professional work experience opportunities, such as internships. Internships are designed to help students obtain experience in their field while pursuing an education. Employer needs and requirements may vary. Contact the Career Development Office for more information.

CAREER GUIDANCE PROGRAM (MY PLAN)

The career guidance program can help those who are

- just entering Stark State College and unsure about career objectives
- disenchanted with present or past career choices
- preparing to make a career transition

The program will measure skills, interest, personality and values and may be summarized with a counseling session. Visit the Stark State College MyPlan page at www.starkstate.myplan.com to access this career guidance tool. For additional assistance, contact the Career Development Office at 330-966-5459.

ALUMNI ASSISTANCE

The Career Development Office offers lifelong services for graduates as well. Graduates may contact the Career Development Office for assistance.

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 www.starkstate.edu/scholarships.

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 he or she fails to meet any of the above requirements, he or she 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 his or her 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 his or her classes out of pocket until he or she is able to reach the 67% completion rate and a cumulative 2.0 GPA.

Appeal Process
If a student has unusual or mitigating circumstances, he or she 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 his or her 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, he or she 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, he or she 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, he or she is 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

The Help Desk 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 provides services to multicultural students to maximize access for educational opportunities and to create a campus environment that is representative of the racial and ethnic diversity in society at large. The goal of this commitment is to assist multicultural students in reaching personal, academic and career goals at Stark State and beyond. The Office of Student Diversity is available to provide

- academic, personal and group advising
- referrals for scholarships, financial aid assistance, career counseling, tutoring, mentoring and internship programs
- coordination of various services with academic and non-academic Stark State offices

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. 4274.

STARK STATE COLLEGE STORE

Textbooks, supplies and retail items are available in the College Store. Regular store hours are Monday through Thursday, 8 a.m. to 7 p.m. and Friday, 8 a.m. to 3:30 p.m., or as posted. The College Store may be accessed online at http://shop.starkstate.edu.

OPEN LABS AND WIRELESS ACCESS

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

STUDENT CONDUCT

When a student enters Stark State College, it is taken for granted by College authorities that an earnest purpose exists, and that the student's conduct will demonstrate that assumption. If, however, the student should be guilty of unbecoming conduct, violating College rules, regulations or policies, academic dishonesty or should neglect academic duties, the College authorities will take such action as the particular offense requires.

The Student Code of Conduct Policy and Procedure (Policy No. 3357.09(K):15-19-10) 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.

The scope of College disciplinary actions may include (a) oral reprimand, (b) formal written reprimand, (c) administrative probation, (d) a definite period of suspension, (e) expulsion, (f) educational workshop, (g) counseling referral and (h) community service. Monetary fines also may be levied on students to cover the cost of labor, materials and time to repair damaged items. In addition, disciplinary penalties for academic dishonesty may be imposed.

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 his or her 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 http://email.starkstate.net

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:

CONNECT TO COMPLETE SUCCESS COACHING

First time students at Stark State College are assigned a success coach through the Connect to Complete program. For their first year at Stark State, a success coach works with students to help them visualize their future and determine what steps need to be taken to fulfill their goals. Students will learn what it takes to be a successful college student. Success coaches will guide students on the pathway toward success by supporting them in learning how to use their strengths and to overcome challenges.

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 (http://libguides.starkstate.edu/chatus), and even via text message (330-267-9272). For hours and more information, visit http://libguides.starkstate.edu/library 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 http://www.kent.edu/stark/library 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 www.starkstate.edu/militaryservices.

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. All students have the opportunity to participate in student activities such as student government, student clubs and other worthwhile and interesting events.

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

An elected student government plans and coordinates extracurricular programs and social affairs for students. The student government assists the College faculty and administration in making rules and regulations by providing student opinion and advice.

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) Club
- American Society of Mechanical Engineers (ASME)
- Association for Medical Laboratory Technicians (AMLT)
- Beta Beta Beta (Tri Beta) Biological Honor Society
- CPi (For students interested in graphics, animation and video gaming)
- Criminal Justice Student Association
- Culinary Club (Epicurean Society)
- Cultural Diversity Coalition
- Energy and Environment Club
- Food and Nutrition Club (FaN)
- 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
- LGBTS Global
- Massage Therapy Club
- Mu Alpha Theta Mathematics Honor Society
- Multimedia Group
- National Electric Contractors Association
- Native American Indian Organization
- Phi Theta Kappa Honor Society
- Physics and Astronomy Club
- Pre-Medical Professionals Club
- Psi Beta Psychology Honors Society
- Respiratory Therapy Club
- Rotaract (Alliance Satellite Center)
- Ski and Snowboarding Club
- Society of Manufacturing Engineers (SME)
- Society of Women Engineers (SWE)
- Sociology Association
- Software Development Guild
- Stark Raving Writers
- Stark Voices – Student Publication

- Stark State College Association of Medical Assistants
- Stark State Student Chapter of the American Chemical Society
- 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 Stark State Readers (a book club)
- Veterans Club at Stark State College
- 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 2017-2018 academic year follows and can be found online at www.starkstate.edu/tuition.

Tuition and Fees 2017-18*

Effective summer 2015

TUITION*

Tuition includes instructional and general fees

Credit hours	Total tuition (Ohio residents)
1	153.60
2	307.20
3	460.80
4	614.40
5	768.00
6	921.60
7	1,075.20
8	1,228.80
9	1,382.40
10	1,536.00
11	1,689.60
12	1,843.20
13	1,996.80
14	2,150.40
15	2,304.00
16 or more	In-state students add an additional $153.60/cr hr

**Out-of-state residents add $129.00/cr hr to totals*

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)

Background check fee 35.00
Credit by examination fee.....76.80/cr hr
Distance learning fee (W3/W4) .....10.00/cr hr
Distance learning fee (W2).....5.00/cr hr
Locker fee 4.50/sem
Student installment fee 25.00
(Avoid 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 tuition 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, he or she 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)
Payment of tuition and fees may be made using the Student Installment Payment Plan (SIPP). A small, non-refundable fee is charged for this service.

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 if the College does not permit the student to enroll or continue in coursework. Refunding of fees for the two previously mentioned circumstances is automatic, and students are not required to complete academic withdrawal procedures.

Instructional fees and general fees paid for 16-week semester courses are subject to refund to students who officially withdraw for valid reasons at the following rates:

a) Before the seventh day of the semester - 100% refund
b) On the seventh through the ninth day of the semester - 80% refund
c) On the 10th through the 16th day of the semester - 60% refund
d) On the 17th through the 20th day of the semester - 40% refund
e) On the 21st day of the semester and beyond - no refund

Instructional fees and general fees paid for 10-week semester courses are subject to refund to students who officially withdraw for valid reasons at the following rates:

a) Before the seventh day of the semester - 100% refund
b) On the seventh through the 11th day of the semester - 60% refund
c) On the 12th through the 13th day of the semester - 40% refund
d) On the 14th day of the semester and beyond - no refund

Instructional fees and general fees paid for 8-week semester courses are subject to refund to students who officially withdraw for valid reasons at the following rates:

a) Before the seventh day of the semester - 100% refund
b) On the seventh through the eighth day of the semester - 60% refund
c) On the ninth through the 10th day of the semester - 40% refund
d) On the 11th day of the semester and beyond - no refund

Instructional fees and general fees paid for 5-week semester courses are subject to refund to students who officially withdraw for valid reasons at the following rates:

a) Before the seventh day of the semester - 100% refund
b) On the seventh day 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:

1. 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.
2. 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.
3. 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.
5. No person holding a student or other temporary visa shall be eligible for Ohio residency for these purposes.
6. 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.
9. 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 www.starkstate.edu/policies at all times, including but not exclusive to

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

The site is searchable at www.starkstate.edu/policies 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 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.

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.

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 common-knowledge) 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, https://transfercredit.ohio.gov.

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	COM121
Interpersonal Communications	COM122
College Composition	ENG124
Technical Report Writing	ENG221
Business Communication	ENG230
College Composition II	ENG231
Mathematics	
Exploration in Modern Mathematics	MTH108
Statistics	MTH 124, MTH124A and MTH124B
College Algebra	MTH125, MTH125A, MTH125B
Trigonometry	MTH130
Precalculus	MTH135, MTH135A and MTH135B
Concepts of Calculus	MTH221
Analytic Geometry and Calculus I	MTH 223, MTH223A and MTH223B
Analytical Geometry and Calculus II	MTH224
Analytical Geometry and Calculus III	MTH225
Linear Algebra	MTH226
Ordinary Differential Equations	MTH227
Arts and Humanities	
British Literature: Medieval to 1785	ENG 233
British Literature: 1785 to Present	ENG 234
Introduction to Shakespeare	ENG235
American Literature: Colonial to 1865	ENG 236
American Literature: 1865 to Present	ENG 237
Major Modern Writers	ENG241
Art History II	ARTH22007
US History I: To 1877	HIS 121
US History II: From 1877	HIS 122
Western Civilization: to 17th Century	HIS221
Western Civilization: from 17th Century	HIS222
Ethics	PHL122
Understanding Architecture +	ARCH10001
Art Survey +	ARTH12001
Art History I: Ancient and Medieval Art+	ARTH22006
Art History II: Renaissance to Modern Art+	ARTH22007
Great Books I +	ENG22071
Great Books II+	ENG22072
The Understanding of Music +	MUS22111
Music as a World Phenomenon+	MUS22121
Interpreting the Black Experience I +	PAS23001
Interpreting the Black Experience II +	PAS23002
Social Science	
General Psychology	PSY121
Psychology of Adjustment	PSY122
Human Growth and Development	PSY123
Industrial/Organizational Psychology	PSY124
Social Psychology	PSY220
Abnormal Psychology	PSY221
Political Science	PSC121
Basic Economics	BUS122
Microeconomics	BUS221
Macroeconomics	BUS222
Sociology	SOC121
Society and Technology	SOC122
Dynamics of the Family	SOC123
Cultural Diversity	SOC225
Natural and Physical Science	
Introduction to Anatomy & Physiology	BIO101
Anatomy and Physiology I	BIO121
Anatomy and Physiology II	BIO122
Science, Energy and the Environment	BIO126
Human Biology	BIO127
Climate Studies	BIO128
Meteorology	BIO129
Ocean Studies	BIO130
General Biology I	BIO141
General Biology II	BIO142
Principles of Microbiology	BIO221
General Genetics	BIO241
Cell and Molecular Biology	BIO242
Introduction to Chemistry	CHM101
General, Organic and Biological Chemistry I	CHM121, CHM121A and CHM121B
General, Organic and Biological Chemistry II	CHM122
General Chemistry I	CHM141, CHM141A and CHM141B
General Chemistry II	CHM142
Forensic Chemistry	CHM205
Organic Chemistry I	CHM241
Organic Chemistry II	CHM242
Ecology	ECO241
Physical Geology	GEO141
Principles of Physics	PHY101
Physics I	PHY121, PHY121A and PHY121B
Physics II	PHY122
Astronomy	PHY105
General Physics I with Calculus	PHY221
General Physics II with Calculus	PHY222

+ Indicates courses offered at Kent State - Stark campus
For the Transfer Module in chart form, www.starkstate.edu/transfermodule

Drug Free Schools and Communities Act Amendments of 1989 Policy

ALCOHOL

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.

BUSINESS

Stark State COLLEGE

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

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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
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▲	4	ACC133	
ACC228	Business Taxation	4	ACC132	
TECHNICAL ELECTIVES: ***Choose two (2) courses***				
ACC226	Advanced Accounting	3	pre-co-ACC222	
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)	
ACC232	Governmental and Not-for-Profit Accounting	3	ACC132	
ACC234	Advanced Payroll▲	3	ACC227	
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	
BTD223	Business Co-op	3	*Department Chair Approval*	
	Total	**33**		

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 **or** ACC237	Auditing♦ **or** Fraud Examination♦▲	4 **or** 3	pre-co-ACC222 **or** ACC133	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency	
BUS124	Business Analysis with Algebra**	3		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
FIN220	Business Finance	3	ACC133	
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**31-32**		
	TOTAL CREDIT HOURS	**64-65**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
♦Course should be chosen following consultation with academic advisor.
▲Course offerings vary by semester. Please see your academic advisor for availability.
[1] Arts & Humanities Elective: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

1718 Catalog Effective Summer 2017	ACCOUNTING – CORPORATE MAJOR	2001

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**	3	
		4	
Second Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
ACC132	Financial Accounting*	4	BUS124
COM121	Effective Speaking	3	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ACC130	Business Law and Ethics	3	
		16	
Third Semester			
ACC133	Managerial Accounting	4	ACC132
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
ACC221	Intermediate Accounting I	4	ACC132
		14	
Fourth Semester			
ACC222	Intermediate Accounting II	3	ACC221
ACC223	Cost Accounting	4	ACC133
ACC228	Business Taxation	4	ACC132
Technical Elective [2]		3	*Check for prerequisites*
		14	
Fifth Semester			
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▲	4	ACC133
Technical Elective[2]		3	*Check for prerequisites*
		16-17	
	TOTAL CREDITS	**64-65**	

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

♦Course should be chosen following consultation with academic advisor.

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Elective: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

[2] Technical Electives: ACC226, ACC227, ACC229, ACC232, ACC234, ACC235, ACC240, ACC241, BTD223

ASSOCIATE OF APPLIED BUSINESS

ACCOUNTING – CPA 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

2002

Business and Information Technology Division *Accounting and Finance Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC124	Individual Taxation	3	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	
ACC226	Advanced Accounting	3	pre-co-ACC222	
ACC228	Business Taxation	4	ACC132	
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		
ACC225	Auditing	4	pre-co-ACC222	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency	
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
BUS124	Business Analysis with Algebra**	3		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
FIN220	Business Finance	3	ACC133	
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**64**		

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	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*
ENG124	College Composition^	3	ENG011 **or** Proficiency
BUS121	Business Administration^	3	IDS102 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ACC130	Business Law and Ethics	3	
Arts & Humanities Elective [1]		3	*Check for prerequisites*
		16	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ACC124	Individual Taxation	3	pre-co-ACC132
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
		16	
Third Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC228	Business Taxation	4	ACC132
ACC232	Governmental and Not-for-Profit Accounting	3	ACC132
		15	
Fourth 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	3	pre-co-ACC222
		17	
	TOTAL CREDITS	**64**	

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

2007

Business and Information Technology Division *Accounting and Finance Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC124	Individual Taxation	3	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	
ACC225 **or** ACC237	Auditing♦ **or** Fraud Examination♦▲	4 **or** 3	pre-co-ACC222 **or** ACC133	
ACC228	Business Taxation	4	ACC132	
TECHNICAL ELECTIVE: ***Must select one course***				
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132	
ACC239	Estate and Income Tax Planning▲	3	ACC124	
BTD223	Business Co-op	3	*Department Chair Approval*	
	Total	**32-33**		

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	
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
BUS124	Business Analysis with Algebra**	3		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
FIN220	Business Finance	3	ACC133	
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**31**		
	TOTAL CREDIT HOURS	**63-64**		

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
♦Course should be chosen following consultation with academic advisor.
▲Course offerings vary by semester. Please see your academic advisor for availability.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	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^	3	ENG011 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
BUS121	Business Administration^	3	IDS102 **or** Proficiency
ACC130	Business Law and Ethics	3	
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		16	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
ACC124	Individual Taxation	3	pre-co-ACC132
		16	
Third Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
ACC228	Business Taxation	4	ACC132
		15	
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	3	ACC133
Technical Elective [2]		3	
		16-17	
	TOTAL CREDITS	**63-64**	

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
♦Course should be chosen following consultation with academic advisor.
▲Course offerings vary by semester. Please see your academic advisor for availability.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225
[2] Technical Elective: ACC227, ACC239, BTD223

ASSOCIATE OF APPLIED BUSINESS

ACCOUNTING – COMPUTER INFORMATION 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

2008

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	
ACC221	Intermediate Accounting I	4	ACC132	
ACC228	Business Taxation	4	ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)	
AOT226	Spreadsheet - Microsoft Excel^	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	
TECHNICAL ELECTIVE I: ***Choose one (1) course***				
ACC124	Individual Taxation	3	pre-co-ACC132	
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132	
ACC234	Advanced Payroll▲	3	ACC227	
ACC235	Forensic Accounting	3		
BTD223	Business Co-op	3	*Department Chair Approval*	
TECHNICAL ELECTIVE II: ***Choose one (1) course***				
CPD222	Microsoft SQL Server Database	3	CPD121	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (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		
ACC237	Fraud Examination▲	3	ACC133	
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
BUS124	Business Analysis with Algebra**	3		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**31**		
	TOTAL CREDIT HOURS	**62**		

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
▲Course offerings vary by semester. Please see your academic advisor for availability.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	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		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ENG124	College Composition^	3	ENG011 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
BUS121	Business Administration^	3	IDS102 **or** Proficiency
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ACC130	Business Law and Ethics	3	
		16	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
COM121	Effective Speaking	3	
BUS221	Microeconomics^	3	IDS102 **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
Arts and Humanities Elective [1]		3	*Check for prerequisites*
		16	
Third Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC228	Business Taxation	4	ACC132
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		15	
Fourth Semester			
ACC237	Fraud Examination▲	3	ACC133
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)
Technical Elective I [2]		3	*Check for prerequisites*
Technical Elective II [3]		3	*Check for prerequisites*
		15	
	TOTAL CREDITS	**62**	

^Based upon SSC placement score.

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

[2] Technical Elective I: ACC124, ACC227, ACC234, ACC235, BTD223

[3] Technical Elective II: CPD222 or WDD121

ASSOCIATE OF APPLIED BUSINESS

ACCOUNTING SERVICES FOR HEALTH ADMINISTRATION 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

2009

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	
ACC221	Intermediate Accounting I	4	ACC132	
ACC223	Cost Accounting	4	ACC133	
ACC228	Business Taxation	4	ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (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^	3	ITD100 **or** Proficiency	
BIO125	Medical Terminology+++	3		
BUS124	Business Analysis with Algebra**	3		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	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	MTH093 **or** co-MTH024 **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**64**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
+++Students must take Health courses in the sequence as shown.
▲Course offerings vary by semester. Please see your academic advisor for availability.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	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^	3	ENG011 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BIO125	Medical Terminology+++	3	
COM121	Effective Speaking	3	
		16	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
HIT230	Health Care Delivery in the U.S.+++	2	
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
Arts & Humanities Elective [1]		3	*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) **and** (ACC121 or ACC132)
MAT231	Reimbursement for Health Care Services+++	3	
		17	
Fourth Semester			
ACC237	Fraud Examination▲	3	ACC133
ACC223	Cost Accounting	4	ACC133
FIN220	Business Finance	3	ACC133
ACC228	Business Taxation	4	ACC132
HIT123	Healthcare Legal and Ethical Issues+++	2	pre-co-HIT230 **or** co-HIT121
		16	
	TOTAL CREDITS	**64**	

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

+++Students must take Health courses in the sequence as shown.

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

ASSOCIATE OF APPLIED BUSINESS

ACCOUNTING – FORENSIC ACCOUNTING 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

2011

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	
ACC221	Intermediate Accounting I	4	ACC132	
ACC223	Cost Accounting	4	ACC133	
ACC228	Business Taxation	4	ACC132	
ACC235	Forensic Accounting	3		
ACC237	Fraud Examination▲	3	ACC133	
ACC238	Financial Statement Analysis▲	4	ACC133	
CFS137	Computer Crime and Investigation	3	NET120	
	Total	**33**		

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		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
CFS136	Principles of Information Security	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency	
NET120	PC Upgrading and Maintenance	3		
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**31**		
	TOTAL CREDIT HOURS	**64**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
▲Course offerings vary by semester. Please see your academic advisor for availability.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	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	ENG011 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
CFS136	Principles of Information Security	3	
		16	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
ACC235	Forensic Accounting	3	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ACC130	Business Law and Ethics	3	
NET120	PC Upgrading and Maintenance	3	
		16	
Third Semester			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC228	Business Taxation	4	ACC132
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
		15	
Fourth Semester			
ACC237	Fraud Examination▲	3	ACC133
ACC223	Cost Accounting	4	ACC133
ACC238	Financial Statement Analysis▲	4	ACC133
CFS137	Computer Crime and Investigation	3	NET120
Arts & Humanities Elective [1]		3	*Check for prerequisites*
		17	
	TOTAL CREDITS	**64**	

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

▲Course offerings vary by semester. Please see your academic advisor for availability

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

2004

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	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency	
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)	
TECHNICAL ELECTIVE: ***Choose one (1) course***				
ACC124	Individual Taxation	3	pre-co-ACC132	
ACC133	Managerial Accounting	4	ACC132	
ACC228	Business Taxation	4	ACC132	
	Total	**16-17**		

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	
BUS124	Business Analysis with Algebra**	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
	Total	**16**		
	TOTAL CREDIT HOURS	**32-33**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

Students must still pass the Certified Bookkeepers Examination to become certified.
This examination is administered by the American Institute of Professional Bookkeepers (AIPB.org).

1718 Catalog Effective Summer 2017	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	
ACC130	Business Law and Ethics	3	
		7	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
BUS121	Business Administration^	3	IDS102 **or** Proficiency
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		13	
Third Semester			
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132
COM121	Effective Speaking	3	
Technical Elective [1]		3-4	*Check for prerequisites*
		12-13	
	TOTAL CREDITS	**32-33**	

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Technical Elective: ACC124, ACC133, ACC228

Students must still pass the Certified Bookkeepers Examination to become certified.
This examination is administered by the American Institute of Professional Bookkeepers (AIPB.org).

ONE-YEAR CERTIFICATE

ENROLLED AGENT

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.

1718 Catalog
Effective Summer 2017

2005

Business and Information Technology Division *Accounting and Finance Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC124	Individual Taxation	3	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132	
ACC228	Business Taxation	4	ACC132	
ACC239	Estate and Income Tax Planning▲	3	ACC124	
	Total	**17**		

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		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
	Total	**13**		
	TOTAL CREDIT HOURS	**30**		

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
▲Course offerings vary by semester. Please see your academic advisor for availability.

Students must still pass the Enrolled Agent Examination to become certified. This examination is administered by the Internal Revenue Service (IRS).

1718 Catalog Effective Summer 2017	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	
ACC130	Business Law and Ethics	3	
		7	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
ACC124	Individual Taxation	3	pre-co-ACC132
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		13	
Third Semester			
ACC228	Business Taxation	4	ACC132
ACC239	Estate and Income Tax Planning▲	3	ACC124
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132
		10	
	TOTAL CREDITS	**30**	

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

▲Course offerings vary by semester. Please see your academic advisor for availability.

Students must still pass the Enrolled Agent Examination to become certified. This examination is administered by the Internal Revenue Service (IRS).

ONE-YEAR CERTIFICATE

FUNDAMENTAL PAYROLL

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.

1718 Catalog
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2006

Business and Information Technology Division *Accounting and Finance Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC124	Individual Taxation	3	pre-co-ACC132	
ACC132	Financial Accounting*	4	BUS124	
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)	
ACC234	Advanced Payroll▲	3	ACC227	
	Total	**16**		

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		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
	Total	**16**		
	TOTAL CREDIT HOURS	**32**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
▲Course offerings vary by semester. Please see your academic advisor for availability.

Students must still pass the Fundamental Payroll Examination to become certified.
This examination is administered by the American Payroll Association.

1718 Catalog Effective Summer 2017	ONE-YEAR CERTIFICATE FUNDAMENTAL PAYROLL	2006

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	
ACC130	Business Law and Ethics	3	
		7	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		13	
Third Semester			
ACC234	Advanced Payroll▲	3	ACC227
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)
COM121	Effective Speaking	3	
ACC124	Individual Taxation	3	pre-co-ACC132
		12	
	TOTAL CREDITS	**32**	

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

▲Course offerings vary by semester. Please see your academic advisor for availability.

Students must still pass the Fundamental Payroll Examination to become certified.
This examination is administered by the American Payroll Association.

ONE-YEAR CERTIFICATE

BANKING ASSOCIATE

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.

1718 Catalog
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2010

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	
FIN221	Investment and Securities▲	3	ACC132	
FIN227	Money and Banking▲	3	BUS124	
MKT121	Principles of Marketing	3	BUS221	
MKT221	Sales	3	MKT121	
	Total	**19**		

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^	3	ITD100 **or** Proficiency	
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
BUS124	Business Analysis with Algebra**	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
	Total	**16**		
	TOTAL CREDIT HOURS	**35**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
▲Course offerings vary by semester. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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*
BUS121	Business Administration^	3	IDS102 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
		13	
Second Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ACC132	Financial Accounting*	4	BUS124
MKT121	Principles of Marketing	3	BUS221
		13	
Third Semester			
MKT221	Sales	3	MKT121
FIN221	Investment and Securities▲	3	ACC132
FIN227	Money and Banking▲	3	BUS124
		9	
	TOTAL CREDITS	**35**	

^Based upon SSC placement score

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

*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

▲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. 3357:15-13-06.

1718 Catalog
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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	3	pre-co-ACC121 **or** pre-co-ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)	
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency	
AOT236	Database Applications – Microsoft Access^▲+	3	ITD100 **or** Proficiency	
	Total	**20**		

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		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122	Computer Applications for Professionals^+	3	ITD100 **or** Proficiency	
	Total	**13**		
	TOTAL CREDIT HOURS	**33**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
** BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
+ 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.

1718 Catalog Effective Summer 2017	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	
ACC130	Business Law and Ethics	3	
		7	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
ITD122	Computer Applications for Professionals^+	3	ITD100 **or** proficiency
ENG124	College Composition^	3	ENG011 **or** proficiency
		10	
Third Semester			
ACC133	Managerial Accounting	4	ACC132
ACC227	Payroll Accounting	3	pre-co-ACC121 **or** pre-co-ACC132
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** proficiency
AOT236	Database Applications – Microsoft Access▲+	3	ITD100 **or** proficiency
		16	
	TOTAL CREDITS	**33**	

^Based upon SSC placement score

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

*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

+ 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.

ASSOCIATE OF APPLIED BUSINESS

CORPORATE 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. 3357:15-13-06.

1718 Catalog
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2400

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	
ACC228	Business Taxation	4	ACC132	
ACC237	Fraud Examination▲	3	ACC133	
ACC238	Financial Statement Analysis▲	4	ACC133	
BUS124	Business Analysis with Algebra**	3		
FIN220	Business Finance	3	ACC133	
FIN224	Risk Management▲	4	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	
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MGT121	Principles of Management	3	BUS121 **or** ENT120	
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency	
	Select one (1)Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**31**		
	TOTAL CREDIT HOURS	**63**		

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	CORPORATE FINANCE	2400

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	ENG011 **or** Proficiency
BUS121	Business Administration^	3	IDS102 **or** Proficiency
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
		13	
Second Semester			
ACC132	Financial Accounting*	4	BUS124
MGT121	Principles of Management	3	BUS121 **or** ENT120
COM121	Effective Speaking	3	
ACC130	Business Law and Ethics	3	
Arts & Humanities Elective [1]		3	*Check for prerequisites*
		16	
Third Semester			
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
ACC133	Managerial Accounting	4	ACC132
ACC228	Business Taxation	4	ACC132
FIN227	Money and Banking▲	3	BUS124
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
		17	
Fourth Semester			
ACC237	Fraud Examination▲	3	ACC133
ACC238	Financial Statement Analysis▲	4	ACC133
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency
FIN224	Risk Management▲	4	ACC132
FIN220	Business Finance	3	ACC133
		17	
	TOTAL CREDITS	**63**	

^Based upon SSC placement score

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

*Students may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

▲Course offerings vary by semester. Please see your academic advisor for availability.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

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. 3357:15-13-06.

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2055

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	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 **and** MGT121	
MGT224	Human Resource Management	3	MGT121	
MGT227	Operations Management	4	MGT121 **and** (MTH108 or MTH124)	
MKT121	Principles of Marketing	3	BUS221	
TECHNICAL ELECTIVE: ***Choose two (2) courses***				
MGT222	Small Business Management	3	ACC133 **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*	
ACC132	Financial Accounting*	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra**	3		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Spreadsheet - Microsoft Excel^	3 **or** 3	ITD100 **or** Proficiency **or** ITD100 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**65**		

^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 may be substituted for ITD122
*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	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	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		16	
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	3	
		16	
Third Semester			
MKT121	Principles of Marketing	3	BUS221
MGT227	Operations Management	4	MGT121 **and** (MTH108 or MTH124)
ACC133	Managerial Accounting	4	ACC132
MGT221	Supervision	3	MGT121
Technical Elective[2]		3	*Check for prerequisites*
		17	
Fourth Semester			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency
MGT223	Business Decision Making	4	ACC133 **and** MGT121
Arts & Humanities Elective[1]		3	*Check for prerequisites*
Technical Elective[2]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**65**	

^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 may be substituted for ITD122

* Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

[2] Technical Electives: MGT222, MGT232, MKT221, MKT226

ASSOCIATE OF APPLIED BUSINESS

BUSINESS MANAGEMENT – HEALTH SERVICES 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. 3357:15-13-06.

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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
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 **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		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Spreadsheet - Microsoft Excel^	3 **or** 3	ITD100 **or** Proficiency **or** ITD100 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^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 may be substituted for ITD122
* Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

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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*
BUS121	Business Administration^	3	IDS102 **or** Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency
or	**or**	**or**	**or**
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
BIO125	Medical Terminology	3	
		16	
Second Semester			
ACC130	Business Law & Ethics	3	
MGT121	Principles of Management	3	BUS121 **or** ENT120
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
ACC132	Financial Accounting*	4	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	(MTH091 and MTH092) **or** Proficiency
ACC133	Managerial Accounting	4	ACC132
HIT230	Health Care Delivery in the U.S.	2	
		15	
Fourth Semester			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency
MGT223	Business Decision Making	4	ACC133 **and** MGT121
MAT231	Reimbursement for Health Care Services	3	
Arts & Humanities Elective [1]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**63**	

^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 may be substituted for ITD12

* Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

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. 3357:15-13-06.

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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
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	ACC133 **and** MGT121	
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		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Spreadsheet - Microsoft Excel^	3 **or** 3	ITD100 **or** Proficiency **or** ITD100 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**64**		

^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 may be substituted for ITD122
* Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

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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*
BUS121	Business Administration^	3	IDS102 **or** Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency
or	**or**	**or**	**or**
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		16	
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	3	
		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	3	ACC132
		16	
Fourth Semester			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency
MGT223	Business Decision Making	4	ACC133 **and** MGT121
FIN220	Business Finance	3	ACC133
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**64**	

^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 may be substituted for ITD122

*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

ASSOCIATE OF APPLIED BUSINESS

BUSINESS MANAGEMENT – HUMAN RESOURCES 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. 3357:15-13-06.

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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
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
MGT121	Principles of Management	3	BUS121 **or** ENT120	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 **and** MGT121	
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		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Spreadsheet - Microsoft Excel^	3 **or** 3	ITD100 **or** Proficiency **or** ITD100 **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**64**		

^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 may be substituted for ITD122
*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

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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*
BUS121	Business Administration^	3	IDS102 **or** Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency
or	**or**	**or**	**or**
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
Arts & Humanities Elective [1]		3	*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*	4	BUS124
		16	
Third Semester			
MKT121	Principles of Marketing	3	BUS221
ACC130	Business Law and Ethics	3	
ACC133	Managerial Accounting	4	ACC132
MGT224	Human Resource Management	3	MGT121
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		16	
Fourth Semester			
MGT221	Supervision	3	MGT121
MGT223	Business Decision Making	4	ACC133 **and** MGT121
MGT237	Safety and Health Management	3	MGT224
MGT238	Strategic Staffing	3	MGT224
MGT239	Compensation and Benefits	3	MGT224
		16	
	TOTAL CREDITS	**64**	

^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 may be substituted for ITD122

*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

ASSOCIATE OF APPLIED BUSINESS

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. 3357:15-13-06.

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Business and Information Technology Division *Management and Marketing Department*

TECHNICAL Course Numbers		Course Title	Credits	Pre- or Co-Requisites	Completed Sem./Year
KSU Equivalent	**Stark State**				
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^	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	ACC133 **and** MGT121	
BMRT 31006	MGT224	Human Resource Management	3	MGT121	
General Elective	MGT227	Operations Management	4	MGT121 **and** (MTH108 or MTH124)●	
MKTG 25010	MKT121	Principles of Marketing	3	BUS221	
		Total	**32**		

NON-TECH Course Number		Course Title	Credits	Pre- or Co-Requisites	Completed Sem./Year
KSU Equivalent	**Stark State**				
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		
COMM 15000*****	COM121	Effective Speaking	3		
ENG 11011	ENG124	College Composition^	3	ENG011 **or** Proficiency	
HIST 12070 **or** HIST 12071	HIS121 **or** HIS122	US History I to 1877 **or** US History II from 1877	3 **or** 3		
MIS 24053	ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency	
MATH 10041	MTH108 **or** MTH124	Explorations in Modern Mathematics^Ω **or** Statistics^●	3 **or** 3	(MTH091 and MTH092) **or** Proficiency MTH093 **or** co-MTH024 **or** Proficiency	
PSYC 11762	PSY121	General Psychology^	3	IDS102 **or** Proficiency	
		Total	**30**		
		TOTAL CREDIT HOURS	**62**		

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
ΩMTH124 should only be taken by students planning to transfer to a four-year institution.
■Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122.
♦Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
*****Must earn minimum C (2.000) grade
●Students in the Kent State University BBA Major should take MTH124 Statistics in lieu of MTH108 Explorations in Modern Mathematics, as MTH108 is not equivalent to Kent State University's MATH10041.

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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*
BUS121	Business Administration^	3	IDS102 **or** Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
		13	
Second Semester			
ACC132	Financial Accounting♦	4	BUS124
COM121	Effective Speaking	3	
MGT121	Principles of Management	3	BUS121 **or** ENT120
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^Ω	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH124	Statistics^●	3	MTH093 **or** co-MTH024 **or** Proficiency
		16	
Third Semester			
MGT221	Supervision	3	MGT121
MKT121	Principles of Marketing	3	BUS221
MGT227	Operations Management	4	MGT121 **and** (MTH108 or MTH124)●
ACC133	Managerial Accounting	4	ACC132
ACC130	Business Law and Ethics	3	
		17	
Fourth Semester			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency
MGT223	Business Decision Making	4	ACC133 **and** MGT121
HIS121	US History I to 1877	3	
or	**or**	**or**	
HIS122	US History II from 1877	3	
PSY121	General Psychology^	3	IDS102 **or** Proficiency
		16	
	TOTAL CREDITS	**62**	

^Based upon SSC placement score.

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

ΩMTH124 should only be taken by students planning to transfer to a four-year institution.

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

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

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

●Students in the Kent State University BBA Major should take MTH124 Statistics in lieu of MTH108 Explorations in Modern Mathematics, as MTH108 is not equivalent to Kent State University's MATH10041.

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ADDITIONAL COURSES FOR KENT BBA DEGREE AVAILABLE AT STARK STATE COLLEGE AND ACCEPTED AT KENT STATE UNIVERSITY:

ADDITIONAL BRIDGE COURSES:

KSU Equivalent	Stark State	Course Title	Credits	Pre- or Co-requisites	Completed Sem./Year
ENG 21011*	ENG231	College Composition II*	3	ENG124	
MATH 11010 (3 credit hours)*	MTH125	College Algebra*	4	(MTH093 and MTH094)++ **or** Proficiency	
MATH 11012	MTH221	Concepts of Calculus	3	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
PHIL 21001	PHL122	Ethics	3		
General Elective	ACC223	Cost Accounting	4	ACC133	

TWO ADDITIONAL BRIDGE SCIENCE COURSES: ***6 credit hours minimum***
(3 credit hour minimum must involve lab course indicated by *)

KSU Equivalent	Stark State	Course Title	Credits	Pre- or Co-requisites	Completed Sem./Year
Kent Basic Science **or** Kent Basic Science and Lab	BIO101 **or** BIO126*	Intro to Anatomy and Physiology **or** Science/Energy, & the Environment (lab)	3 credit hours **or** 4 credit hours/2 lab hours	IDS102 or Proficiency **or** None	
CHEM 10030 **or** CHEM 100050	CHM101 **or** CHM121*	Introduction to Chemistry **or** Gen/Org, & Biology Chemistry I	4 credit hours **or** 4 credit hours/2 lab hours	(MTH093 and MTH094)++ **or** Proficiency **or** CHM101	
Kent Basic Science and Lab **or** PHY 13021 and PHY 13001	PHY101* **or** PHY121*	Principles of Physics **or** Col Physics I with Algebra	4 credit hours/2 lab hours **or** 4 credit hours/2 lab hours	[(MTH093++ or Proficiency) **or** (MTH105 or MTH106 or MTH107 or MTH108 or Proficiency)] **and** [IDS102 or Proficiency] **or** MTH135 **or** (MTH125 and MTH130)	
Kent Basic Science and Lab	BIO128*	Climate Studies	3 credit hours/2 lab hours		
Kent Basic Science and Lab	BIO129*	Meteorology	3 credit hours/2 lab hours		
GEOL 21080	BIO130*	Ocean Studies	3 credit hours/2 lab hours		
BSCI 10120	BIO141*	General Biology I	4 credit hours/3 lab hours		
CHEM 10062 **or** CHEM 10060	CHM141*	General Chemistry I	5 credit hours/4 lab hours	CHM101	
GEOL 11040 **and** GEOL 11041	GEO141*	Geology	4 credit hours/2 lab hours		

If all Bridge courses are completed at Stark State College, these 42 credit hours must be taken at Kent State University to obtain the BBA degree:

Course Number	Course Title	Credit Hours
	Fine Arts Elective	3
MIS 34165 **or** MIS 34175	Dynamics of Leadership **or** Learning to Lead	3
MIS 44062	Supply Chain Management	3
MIS 44152	Collaborative Project Management	3
MIS 44163	Global Business Management	3
MIS 44392	Business Consulting and Practicum	3
	Major Electives	6
	College Elective	6
	Fine Arts Elective	3
BUS 30061	Business Professional Practices	1
ENG 30061	Writing in Business	2
MIS 34060	Operations Management	3
MIS 44285	Business Policies	3
FIN 36053	Business Finance	3
	TOTAL CREDIT HOURS	**42**

*Minimum C (2.000) grade required.

ONE-YEAR CERTIFICATE

ENTREPRENEURSHIP

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.

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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
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		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Microsoft - Spreadsheet Excel^	3 **or** 3	ITD100 **or** Proficiency ITD100 **or** Proficiency	
	Total	**16**		
	TOTAL CREDIT HOURS	**31**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124
■Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122.

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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*
BUS121	Business Administration^	3	IDS102 **or** Proficiency
ENT120	Entrepreneurship^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
COM121	Effective Speaking	3	
BUS124	Business Analysis with Algebra**	3	
		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^	3	ITD100 **or** Proficiency
		15	
	TOTAL CREDITS	**31**	

^Based upon SSC placement score

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

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124

■Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

ASSOCIATE OF APPLIED BUSINESS

BUSINESS MANAGEMENT – ENTREPRENEURSHIP 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. 3357:15-13-06.

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2079

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* **or** *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		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Spreadsheet - Microsoft Excel^	3 **or** 3	ITD100 **or** Proficiency **or** ITD100 **or** Proficiency	
MTH108 **or** MTH125	Explorations in Modern Mathematics^Ω **or** College Algebra^	3 **or** 4	(MTH091 and MTH092) **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**33-34**		
	TOTAL CREDIT HOURS	**63-64**		

^Based upon SSC placement score
^^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
■Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122
*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, HIS121, HIS122, PHL122, SOC225

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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*
BUS121	Business Administration^	3	IDS102 **or** Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency
or	**or**	**or**	**or**
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
ENT120	Entrepreneurship^	3	IDS102 **or** Proficiency
		16	
Second Semester			
ENT124	Managing Entrepreneurial Growth	3	ENT120
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^Ω	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
MGT121	Principles of Management	3	BUS121 **or** ENT120
ENT225	Global Entrepreneurship	3	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 Elective[1]		3	*Check for prerequisites*
		16	
Fourth Semester			
ENT223	Entrepreneurship Practicum	3	*Sophomore Standing* **or** *Department Chair Approval*
ACC133	Managerial Accounting	4	ACC132
ACC130	Business Law and Ethics	3	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency
MKT221	Sales	3	MKT121
		16	
		63-64	

^Based upon SSC placement score

^^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

■Successful completion of ITD102, ITD104, ITD105, and ITD106 may be substituted for ITD122

* Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, HIS121, HIS122, PHL122, SOC225

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. 3357:15-13-06.

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2080

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	
CUL126	Food Purchasing – Inventory Control	3		
CUL221	Baking and Pastry – Preparation III	3	CUL124	
CUL222	Advanced Cookery – Preparation IV	3	pre-co-CUL221	
CUL223	Catering and Buffet/Event Management	3	CUL119 **and** CUL120 **and** CUL122	
CUL224	Beverage Management and Service	3	CUL119 **and** CUL120	
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		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
CUL119	Culinary ServSafe	1		
CUL120	Sanitation and Safety	2		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENT120	Entrepreneurship^	3	IDS102 **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	(MTH091 and MTH092) **or** Proficiency	
SOC225	Cultural Diversity	3		
	Total	**31**		
	TOTAL CREDIT HOURS	**63**		

^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 may be substituted for ITD122

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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	ENG011 **or** Proficiency
ENT120	Entrepreneurship^	3	IDS102 **or** Proficiency
		13	
Second Semester			
CUL123	Fundamental Cooking – Preparation I	3	CUL122
CUL125	Culinary Nutrition/Menu Planning	3	CUL119 **and** CUL120
CUL126	Food Purchasing – Inventory Control	3	
ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency
MGT121	Principles of Management	3	BUS121 **or** ENT120
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		18	
Third Semester			
ACC130	Business Law & Ethics	3	
CUL124	Meat and Fish – Preparation II	3	CUL123
CUL223	Catering and Buffet/Event Management	3	CUL119 **and** CUL120 **and** CUL122
CUL224	Beverage Management and Service	3	CUL119 **and** CUL120
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency
		15	
Fourth Semester			
CUL221	Baking and Pastry – Preparation III	3	CUL124
CUL230	Culinary Practicum	5	pre-co-CUL222
CUL222	Advanced Cookery – Preparation IV	3	pre-co-CUL221
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
SOC225	Cultural Diversity	3	
		17	
	TOTAL CREDITS	**63**	

^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 may be substituted for ITD122

ASSOCIATE OF APPLIED BUSINESS

BUSINESS MANAGEMENT – SPORTS 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. 3357:15-13-06.

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2081

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	ACC133 **and** MGT121	
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 ELECTIVE: ***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		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Spreadsheet - Microsoft Excel^	3 **or** 3	ITD100 **or** Proficiency **or** ITD100 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**64**		

^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 may be substituted for ITD122.
*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	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.

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^	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
		16	
Second Semester			
BUS221	Microeconomics^	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	(MTH091 and MTH092) **or** Proficiency
ACC132	Financial Accounting*	4	BUS124
		16	
Third Semester			
COM121	Effective Speaking	3	
MKT121	Principles of Marketing	3	BUS221
MGT232	International Business	3	BUS121
ACC133	Managerial Accounting	4	ACC132
Technical Elective [2]		3	*Check for prerequisites*
		16	
Fourth Semester			
MKT225	Sports Sales	3	MKT121
MGT223	Business Decision Making	4	ACC133 **and** MGT121
MGT235	Facility and Event Management for Sports	3	MGT121 **and** MKT121 **and** ACC132
MGT236	Sports and Ethics	3	
Arts & Humanities Elective [1]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**64**	

^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 may be substituted for ITD122.

*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

[2] Technical Elective: MGT221, MGT224

ASSOCIATE OF APPLIED BUSINESS

MARKETING AND SALES 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. 3357:15-13-06.

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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	
TECHNICAL ELECTIVE: ***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		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Spreadsheet - Microsoft Excel^	3 **or** 3	ITD100 **or** Proficiency **or** ITD100 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**64**		

^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 may be substituted for ITD122
*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

1718 Catalog Effective Summer 2017	MARKETING AND SALES MANAGEMENT	2300

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
BUS124	Business Analysis with Algebra**	3	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		16	
Second Semester			
MKT121	Principles of Marketing	3	BUS221
ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency
or	**or**	**or**	**or**
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ACC132	Financial Accounting*	4	BUS124
COM121	Effective Speaking	3	
MGT121	Principles of Management	3	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 Elective [2]		3	*Check for prerequisites*
		16	
Fourth Semester			
MKT229	Market Planning	4	MKT121
ACC130	Business Law and Ethics	3	
Technical Elective [2]		3	*Check for prerequisites*
Technical Elective [2]		3	*Check for prerequisites*
Arts & Humanities Elective [1]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**64**	

^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 may be substituted for ITD122

*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

[2] Technical Elective: MGT221, MKT226, MKT227, MKT233, MKT236

ASSOCIATE OF APPLIED BUSINESS

BUSINESS MANAGEMENT – GAMING 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. 3357:15-13-06.

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2305

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	
MGT141	Introduction to Casino Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 **and** MGT121	
MGT224	Human Resource Management	3	MGT121	
MGT241	Casino Security	3	MGT141	
MGT243	Gaming Methods	3	MGT141	
MKT131	Casino Marketing	3	BUS121	
	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		
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG230	Business Communication	3	ENG124	
ITD122 **or** AOT226	Computer Applications for Professionals^■ **or** Spreadsheet - Microsoft Excel^	3 **or** 3	ITD100 **or** Proficiency **or** ITD100 **or** Proficiency	
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**64**		

^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 may be substituted for ITD122
*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.
**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

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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*
BUS121	Business Administration^	3	IDS102 **or** Proficiency
ITD122	Computer Applications for Professionals^■	3	ITD100 **or** Proficiency
or	**or**	**or**	**or**
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
BUS124	Business Analysis with Algebra**	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
		16	
Second Semester			
ACC130	Business Law and Ethics	3	
MKT131	Casino Marketing	3	BUS121
MGT121	Principles of Management	3	BUS121 **or** ENT120
MGT141	Introduction to Casino Management	3	BUS121
ACC132	Financial Accounting*	4	BUS124
		16	
Third Semester			
ENG230	Business Communication	3	ENG124
MGT221	Supervision	3	MGT121
MGT241	Casino Security	3	MGT141
ACC133	Managerial Accounting	4	ACC132
MGT224	Human Resource Management	3	MGT121
		16	
Fourth Semester			
MGT223	Business Decision Making	4	ACC133 **and** MGT121
COM121	Effective Speaking	3	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency
MGT243	Gaming Methods	3	MGT141
Arts & Humanities Elective [1]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**64**	

^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 may be substituted for ITD122

*Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.

**BUS124 is the equivalent to BUS123. Students who have successfully completed BUS123 do not need to take BUS124.

[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, PHL122, SOC225

CAREER ENHANCEMENT CERTIFICATE

ENTREPRENEURSHIP

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.

1718 Catalog
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2072

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^	3	IDS102 **or** Proficiency
		6	
Second Semester			
ENT124	Managing Entrepreneurial Growth	3	ENT120
ENT225	Global Entrepreneurship	3	ENT120
		6	
	TOTAL CREDITS	**12**	

^Based upon SSC placement score.

EDUCATION

Stark State
COLLEGE

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

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.

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Effective Summer 2017

1050

Arts and Sciences Division *Education and Social Sciences Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EDU122	Curriculum Design and Instruction++ ▲+ (15 O.H.)	3	EDU131	
EDU123	Health & Nutrition (5 O.H.)	3	EDU131	
EDU124	Infant-Toddler Curriculum++ (5 O.H.)	2	EDU131	
EDU131	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency	
EDU132	Observation, Assessment, and Group Management^++ (10 O.H.)	3	ENG011 **or** Proficiency	
EDU221	Language Arts++ ▲- (10 O.H.)	3	EDU122 **or** EDU124	
EDU223	Community and Family-based Programs++ (5 O.H.)	3	EDU131	
EDU224	Early Childhood Program Administration	3	EDU131	
EDU225	The Exceptional Child++ ▲+ (5 O.H.)	3	EDU130 **or** EDU131	
EDU227	Early CHLD ED Tech Practicum++ (210 Hours)	3	(EDU128 or EDU221) **and** EDU132 **and** Pre-Co-EDU225	
EDU228	Phonics for Young Children++ ▲+ (5 O.H.)	3	EDU221	
	Total	**32**		

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^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity++	3		
PHL122	Ethics	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^Ω	3 **or** 3	(MTH091 and MTH092) **or** Proficiency MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
COM121	Effective Speaking	3		
EDU126	Educational Technology	3		
EDU130	Intro to the Teaching Profession^++ (10 O.H.)	3	ENG011 **or** Proficiency	
EDU229	Educational Psychology (5 O.H.)	3	EDU130 **or** EDU131	
	Select one (1) Natural Sciences (with lab) Electives from the list below[1]	4	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**64**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
ΩMTH124 should only be taken by students planning to transfer to a four-year institution.

[1]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.
▲-Fall only courses. Please see your academic advisor for availability.

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

1718 Catalog Effective Summer 2017	EARLY CHILDHOOD EDUCATION	1050

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	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency
EDU132	Observation, Assessment, and Group Management^++ (10 O.H.)	3	ENG011 **or** Proficiency
EDU126	Educational Technology	3	
PSY121	General Psychology^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		16	
Second Semester			
EDU122	Curriculum Design and Instruction++ ▲+ (15 O.H.)	3	EDU131
EDU123	Health & Nutrition (5 O.H.)	3	EDU131
EDU225	The Exceptional Child++ ▲+ (5 O.H.)	3	EDU130 **or** EDU131
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092)
or	**or**	**or**	**or** Proficiency
MTH124	Statistics^Ω	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
COM121	Effective Speaking	3	
		15	
Third Semester			
EDU130	Intro to the Teaching Profession^++ (10 O.H.)	3	ENG011 **or** Proficiency
EDU221	Language Arts++ ▲- (10 O.H.)	3	EDU122 **or** EDU124
EDU223	Community & Family-based Programs++ (5 O.H.)	3	EDU131
SOC225	Cultural Diversity++	3	
EDU124	Infant-Toddler Curriculum++ (5 O.H.)	2	EDU131
EDU229	Educational Psychology (5 O.H.)	3	EDU130 **or** EDU131
		17	
Fourth Semester			
EDU224	Early Childhood Program Administration	3	EDU131
EDU227	Early CHLD ED Tech Practicum++ (210 Hours)	3	(EDU128 or EDU221) **and** EDU132 **and** Pre-Co-EDU225
EDU228	Phonics for Young Children++▲+(5 O.H.)	3	EDU221
PHL122	Ethics	3	
Natural Sciences (with lab) Elective[1]		4	*Check for prerequisites*
		16	
	TOTAL CREDITS	**64**	

^Based on SSC placement scores.

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

++Minimum grade of "C" required.

ΩMTH124 should only be taken by students planning to transfer to a four-year institution.

[1]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.

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

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

ASSOCIATE OF APPLIED SCIENCE

EARLY CHILDHOOD EDUCATION – INTERVENTION 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. 3357:15-13-06.

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Arts and Sciences Division *Education and Social Sciences Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EDU122	Curriculum Design and Instruction++▲+ (15 O.H.)	3	EDU131	
EDU123	Health & Nutrition (5 O.H.)	3	EDU131	
EDU125	Children w/Physical Exceptionalities++▲+ (5 O.H.)	3	EDU131	
EDU131	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency	
EDU132	Observation, Assessment, and Group Management^++ (10 O.H.)	3	ENG011 **or** Proficiency	
EDU221	Language Arts++▲- (10 O.H.)	3	EDU122 **or** EDU124	
EDU223	Community & Family-based Programs++ (5 O.H.)	3	EDU131	
EDU225	The Exceptional Child++▲+ (5 O.H.)	3	EDU130 **or** EDU131	
EDU227	Early CHLD ED Tech Practicum ++ (210 Hours)	3	(EDU128 or EDU221) **and** EDU132 **and** Pre-Co-EDU225	
EDU230	Children w/Socioemotional Exceptionalities++▲- (5 O.H.)	3	EDU131	
	Total	**30**		
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^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity++	3		
PHL122	Ethics	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^Ω	3 **or** 3	(MTH091 and MTH092) **or** Proficiency MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
COM121	Effective Speaking	3		
EDU126	Educational Technology	3		
EDU130	Intro to the Teaching Profession^++ (10 O.H.)	3	ENG011 **or** Proficiency	
EDU229	Educational Psychology (5 O.H.)	3	EDU130 **or** EDU131	
	Select one (1) Natural Sciences (with lab) Electives from the list below[1]	4	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
ΩMTH124 should only be taken by students planning to transfer to a four-year institution.

[1]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.
▲-Fall only courses. Please see your academic advisor for availability.

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

1718 Catalog Effective Summer 2017	EARLY CHILDHOOD EDUCATION – INTERVENTION SPECIALIST MAJOR	1051

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	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency
EDU132	Observation, Assessment, and Group Management^++ (10 O.H.)	3	ENG011 **or** Proficiency
EDU126	Educational Technology	3	
PSY121	General Psychology^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		16	
Second Semester			
EDU122	Curriculum Design and Instruction++▲+ (15 O.H.)	3	EDU131
EDU123	Health & Nutrition (5 O.H.)	3	EDU131
EDU225	The Exceptional Child++▲+ (5 O.H.)	3	EDU130 **or** EDU131
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092)
or	**or**	**or**	**or** Proficiency
MTH124	Statistics^Ω	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
COM121	Effective Speaking	3	
		15	
Third Semester			
EDU125	Children w/Physical Exceptionalities++▲+ (5 O.H.)	3	EDU131
EDU130	Intro to the Teaching Profession^++ (10 O.H.)	3	ENG011 **or** Proficiency
EDU221	Language Arts++▲- (10 O.H.)	3	EDU122 **or** EDU124
EDU223	Community & Family-based Programs++ (5 O.H.)	3	EDU131
SOC225	Cultural Diversity++	3	
		15	
Fourth Semester			
EDU227	Early CHLD ED Tech Practicum++ (210 Hours)	3	(EDU128 or EDU221) **and** EDU132 **and** Pre-Co-EDU225
EDU229	Educational Psychology (5 O.H.)	3	EDU130 **or** EDU131
EDU230	Children w/Socioemotional Exceptionalities++▲- (5 O.H.)	3	EDU131
PHL122	Ethics	3	
Natural Sciences (with lab) Elective[1]		4	*Check for prerequisites*
		16	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
ΩMTH124 should only be taken by students planning to transfer to a four-year institution.

[1]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.

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

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

ASSOCIATE OF APPLIED SCIENCE

EARLY CHILDHOOD EDUCATION – INFANT AND TODDLER MAJOR

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Arts and Sciences Division *Education and Social Sciences Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EDU123	Health and Nutrition (5 O.H.)	3	EDU131	
EDU124	Infant-Toddler Curriculum++ (5 O.H.)	2	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	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency	
EDU132	Observation, Assessment, and Group Management^++ (10 O.H.)	3	ENG011 **or** Proficiency	
EDU221	Language Arts ++▲- (10 O.H.)	3	EDU122 **or** EDU124	
EDU223	Community and Family-based Programs++ (5 O.H.)	3	EDU131	
EDU225	The Exceptional Child++▲+ (5 O.H.)	3	EDU130 **or** EDU131	
EDU227	Early CHLD ED Tech Practicum++ (210 Hours)	3	(EDU128 or EDU221) **and** EDU132 **and** Pre-Co-EDU225	
	Total	**32**		

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^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity++	3		
PHL122	Ethics	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^Ω	3 **or** 3	(MTH091 and MTH092) **or** Proficiency MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
COM121	Effective Speaking	3		
EDU126	Educational Technology	3		
EDU130	Intro to the Teaching Profession^++ (10 O.H.)	3	ENG011 **or** Proficiency	
EDU229	Educational Psychology (5 O.H.)	3	EDU130 **or** EDU131	
	Select one (1) Natural Sciences (with lab) Electives from the list below[1]	4	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**64**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
ΩMTH124 should only be taken by students planning to transfer to a four-year institution.

[1] Natural Science elective: BIO126, BIO127, CHM100, GEO141, PHY105
▲-Fall only courses. Please see your academic advisor for availability.

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

Note: O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

1718 Catalog Effective Summer 2017	EARLY CHILDHOOD EDUCATION – INFANT AND TODDLER MAJOR	1053

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	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency
EDU132	Observation, Assessment, and Group Management^++ (10 O.H.)	3	ENG011 **or** Proficiency
EDU126	Educational Technology	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
COM121	Effective Speaking	3	
		16	
Second Semester			
EDU128	Responsive Infant and Toddler Environment++▲- (5 O.H.)	3	EDU131
EDU123	Health and Nutrition (5 O.H.)	3	EDU131
EDU124	Infant and Toddler Curriculum++ (5 O.H.)	2	EDU131
EDU127	Infant and Toddler Group Care++▲+ (5 O.H.)	3	EDU131
PSY121	General Psychology^	3	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092)
or	**or**	**or**	**or** Proficiency
MTH124	Statistics^Ω	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
		17	
Third Semester			
SOC225	Cultural Diversity++	3	
EDU130	Intro to the Teaching Profession^++ (10 O.H.)	3	ENG011 **or** Proficiency
EDU221	Language Arts++▲- (10 O.H.)	3	EDU122 **or** EDU124
EDU229	Educational Psychology (5 O.H.)	3	EDU130 **or** EDU131
Natural Sciences (with lab) Elective[1]		4	*Check for prerequisites*
		16	
Fourth Semester			
EDU129	Relationship Development for Infants and Toddlers ++▲+ (5 O.H.)	3	Pre-Co-EDU127
EDU223	Community and Family-based Programs++ (5 O.H.)	3	EDU131
EDU225	The Exceptional Child++▲+ (5 O.H.)	3	EDU130 **or** EDU131
EDU227	Early CHLD ED Tech Practicum++ (210 hours)	3	(EDU128 or EDU221) **and** EDU132 **and** Pre-Co-EDU225
PHL122	Ethics	3	
		15	
	TOTAL CREDITS	**64**	

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
ΩMTH124 should only be taken by students planning to transfer to a four-year institution.

[1]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.
▲-Fall only courses. Please see your academic advisor for availability.

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

ASSOCIATE OF SCIENCE

EDUCATION

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

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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
FRESHMAN EXPERIENCE				
SSC101	Student Success Seminar^^	1	*Take first semester*	
COMPUTER APPLICATIONS				
EDU126	Educational Technology	3		
WRITTEN & ORAL COMMUNICATION: ***6 credit hours minimum***				
ENG124	College Composition^ **(required)**	3	ENG011 **or** Proficiency	
ENG231	College Composition II **(required)**	3	ENG124	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
COM122	Interpersonal Communication	3		
COM123	Intergroup Communications	3	IDS102 **or** Proficiency	
COM125	Introduction to Communication Theory▲-	3	IDS102 **or** Proficiency	
COM126	Introduction to Mass Communication▲+	3		
SOCIAL & BEHAVIORAL SCIENCES: ***9 credit hours minimum***				
PSC121	Political Science	3		
PSY121	General Psychology^ **(required)**	3	IDS102 **or** Proficiency	
SOC121	Sociology^ **(required)**	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity **(required)**	3		
PSY122	Psychology of Adjustment	3	PSY121	
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^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***9 credit hours minimum***				
COM121	Effective Speaking **(required)**	3		
ENG233	British Literature: Med to 1785	3	ENG124	
ENG234	British Lit: 1785 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		

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

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1718 Catalog Effective Summer 2017	EDUCATION	1060

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PHL122	Ethics	3	1	
SCIENCES & MATHEMATICS				
***Natural Sciences:* 8 semester 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, 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	Applying Chemistry to Society (lab)	4		
CHM101	Introduction to Chemistry^⮜	4	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM121	Gen., Org., and Bio Chemistry I (lab)^⮜	4	CHM101 **or** Proficiency	
CHM122	Gen., Org., and Bio Chemistry II (lab)	4	CHM121	
GEO141	Physical Geology (lab)	4		
PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **and** (IDS102 or Proficiency)	
PHY105	Astronomy	4		
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 semester credit hours minimum**				
MTH124 **or** MTH 125	Statistics^ **or** College Algebra^	3 **or** 4	MTH093 **or** Pre-Co-MTH024 **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
MTH221	Concepts of Calculus^▲+	3	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
EDUCATION: ***9 credit hours required***				
EDU130	Introduction to the Teaching Profession^++ (10 O.H.)	3	ENG011 **or** Proficiency	
EDU225	Exceptional Child++ ▲+ (5 O.H.)	3	EDU130 **or** EDU131	
EDU229	Educational Psychology++ (5 O.H.)	3	EDU130 **or** EDU131	
ADDITIONAL ELECTIVES TO COMPLETE DEGREE*		**12-16**	*Check for prerequisites*	
	TOTAL CREDIT HOURS	**60-65**		

^Based on SSC placement scores.

++Minimum grade of "C" required.

⮜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.

*Based on teacher licensure area of concentration *(see next page)*.

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

Note: O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

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)	EDU131 Intro to Child Development (3)
BIO123 Principles of Human Structure and Function (lab) (5)	EDU132 Observation, Assessment, and Group Management (3)
BIO124 Human Diseases (3)	EDU122 Curriculum Design and Instruction (3)▲+
	EDU123 Health and Nutrition (3)
Chemistry	EDU125 Children with Physical Exceptionalities (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	EDU228 Phonics (3)▲+
ASL121 Introduction to the Deaf Culture and Community (3)	EDU230 Children with Socioemotional Exceptionalities (3)▲-
ASL122 American Sign Language I (4)	
ASL123 Introduction to Interpreting (3)	**English**
ASL124 American Sign Language II (4)	ENG125 Technical Editing and Layout (3)▲+
ASL221 American Sign Language III (4)	ENG227 Writing for Media (3)
ASL222 ASL Practicum and Seminar (3)	ENG228 Writing for the Web (3)▲-
	ENG229 Grant Writing (3)
Foreign Language	ENG235 Introduction to Shakespeare (3)▲+
CHN100 Elementary Chinese I (4)	ENG236 American Lit: Colonial to 1865 (3)
CHN200 Elementary Chinese II (4)	ENG237 American Lit: 1865 to present (3)
SPN100 Elementary Spanish I (4)	ENG238 Introduction to Creative Writing (3)▲+
SPN200 Elementary Spanish II (4)▲+	ENG239 Film Appreciation (3)▲+
	ENG240 Women's Literature (3)▲-
Social and Behavioral Sciences	ENG241 Major Modern Writers (3)
GLS121 Introduction to Law and the Legal System (3)	
PSC221 State and Local Government (3)	
PSC222 Public Policy (3)	
SOC222 Juvenile Delinquency (3)	

*Based on teacher licensure area of concentration.

▲-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 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	ENG011 **or** Proficiency
SOC121	Sociology^	3	IDS102 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
EDU130	Introduction to the Teaching Profession^++	3	ENG011 **or** Proficiency
		16	
Second Semester			
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
SOC225	Cultural Diversity	3	
ENG231	College Composition II	3	ENG124
EDU126	Educational Technology	3	
*Additional Elective**		3	*Check for prerequisites*
		15-16	
Third Semester			
Arts & Humanities Elective [1]		3	*Check for prerequisites*
BIO127	Human Biology (lab)	4	
EDU229	Educational Psychology++ (5 O.H.)	3	EDU130 **or** EDU131
*Additional Elective**		3-5	*Check for prerequisites*
*Additional Elective**		3	*Check for prerequisites*
		16-18	
Fourth Semester			
Arts & Humanities Elective [1]		3	*Check for prerequisites*
EDU225	Exceptional Child++▲+ (5 O.H.)	3	EDU130 **or** EDU131
Natural Sciences Elective➹ [2]		4	*Check for prerequisites*
*Additional Elective**		3-5	*Check for prerequisites*
		13-15	
	TOTAL CREDITS	**60-65**	

^Based on SSC placement scores.

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

++Minimum grade of "C" required.

➹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.

[1] Arts & Humanities Electives: ENG233, ENG234, HIS121, HIS122, HIS221, HIS222, PHL122.

[2] Natural Sciences Elective: BIO121, BIO122, BIO126, BIO141, BIO142, BIO221, CHM100, CHM101, CHM121, CHM122, GEO141, PHY101, PHY105, PHY121, PHY122.

*Additional Electives: Based on teacher licensure area of concentration. *(See previous page for additional elective options.)*

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

Note: O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

ONE-YEAR 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

1075

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*	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
COM121	Effective Speaking	3		
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
SOC123	Dynamics of the Family	3		
	Total	**13**		
	TOTAL CREDIT HOURS	**34**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.

Note: O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

1718 Catalog Effective Summer 2017	ONE-YEAR CERTIFICATE AMERICAN SIGN LANGUAGE	1075

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	3	
		11	
Second Semester			
ASL124	American Sign Language II++ (10 O.H.)	4	ASL122
ASL123	Introduction to Interpreting++ (5 O.H.)	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
PSY121	General Psychology^	3	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	3	
		10	
	TOTAL CREDITS	**34**	

^Based on SSC placement scores.

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

++Minimum grade of "C" required.

Note: O.H. = Observation Hours Required. Students must successfully complete all required observation hours and other course assignments in order to pass the course.

CAREER ENHANCEMENT CERTIFICATE

INFANT TODDLER

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

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1049

Arts and Sciences Division *Education and Social Sciences Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EDU123	Health and Nutrition (5 O.H.)	3	EDU131	
EDU124	Infant Toddler Curriculum++ (5 O.H.)	2	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	Introduction to 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 Semester		Credit Hours	Pre- and Co-requisites
EDU131	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency
		3	
Second Semester			
EDU128	Responsive Infant and Toddler Environment++▲- (5 O.H.)	3	EDU131
EDU123	Health and Nutrition (5 O.H.)	3	EDU131
EDU124	Infant Toddler Curriculum++ (5 O.H.)	2	EDU131
		8	
Third Semester			
EDU127	Infant and Toddler Group Care++ ▲+ (5 O.H.)	3	EDU131
EDU129	Relationship Development for Infants and Toddlers++▲+ (5 O.H.)	3	Pre-Co-EDU127
		6	
	TOTAL CREDITS	**17**	

^Based upon SSC placement scores.
++Minimum grade of "C" required.
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.

CAREER ENHANCEMENT CERTIFICATE

EARLY CHILDHOOD ADMINISTRATOR

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.

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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
EDU131	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency	
BUS121	Business Administration^++	3	IDS102 **or** Proficiency	
MGT121	Principles of Management++	3	BUS121	
EDU224	Early Childhood Program Administration	3	EDU131	
EDU231	ECE Administrator Practicum and Seminar++	3	Pre-Co-MGT121	
	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.

		Credit Hours	Pre- and Co-requisites
First Semester			
BUS121	Business Administration^++	3	IDS102 **or** Proficiency
EDU131	Introduction to Child Development^++ (15 O.H.)	3	ENG011 **or** Proficiency
		6	
Second Semester			
EDU224	Early Childhood Program Administration	3	EDU131
MGT121	Principles of Management++	3	BUS121
		6	
Third Semester			
EDU231	ECE Administrator Practicum and Seminar++	3	Pre-Co-MGT121
		3	
	TOTAL CREDITS	**15**	

^Based upon SSC placement scores.
++Minimum grade of "C" required.

Note: O.H. = Observation Hours required. Students must successfully complete all required observation hours and other course assignments in order to pass this course.

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. 3357:15-13-06.

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1074

Arts and Sciences Division *Education and Social Sciences Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
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	**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
ASL121	Introduction to the Deaf Culture & Community++ *(5 O.H.)*	3	
ASL122	American Sign Language I++ *(10 O.H.)*	4	
		7	
Second Semester			
ASL124	American Sign Language II++ *(10 O.H.)*	4	ASL122
		4	
Third Semester			
ASL221	American Sign Language III++ *(10 O.H.)*	4	ASL 124
		4	
	TOTAL CREDITS	**15**	

++Minimum grade of "C" required.

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.

ENGINEERING TECHNOLOGIES

Stark State COLLEGE

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

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.

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Effective Summer 2017

2250

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 I	3	AUT121	
AUT226	Automotive Drivetrain II	3	AUT121	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH107	Industrial Math^ Ω	3	(MTH091 and MTH092) **or** Proficiency	
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
PHL122	Ethics	3		
	Total	**30**		
	TOTAL CREDIT HOURS	**60-63**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
Ω MTH125 College Algebra should be taken by students planning to transfer to a four-year university
******See Technical Elective list page.

1718 Catalog Effective Summer 2017	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
ENG124	College Composition^	3	ENG011 **or** Proficiency
		14	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT126	Automotive HVAC Systems	2	AUT121
MTH107	Industrial Math^ Ω	3	(MTH091 and MTH092) **or** Proficiency
PHL122	Ethics	3	
		16	
Third Semester			
AUT221	Fuel and Emissions Management Systems	3	AUT125
AUT222	Engine Systems Performance Diagnosis	3	AUT125
AUT223	Advanced Automotive Electronics	3	AUT125
AUT227	Computerized Vehicle Control	3	AUT125
BUS122	Basic Economics^	3	IDS102 **or** Proficiency
		15	
Fourth Semester			
AUT225	Automotive Drivetrain I	3	AUT121
AUT226	Automotive Drivetrain II	3	AUT121
AUT233	Automotive Diagnostic Applications	2	AUT223
AUT234	Alternative Fuels and Advanced Automotive Technology	2	AUT223
ENG221	Technical Report Writing	3	ENG124
	*See Technical Elective list page***	2-5	*Check for prerequisites*
		15-18	
	TOTAL CREDITS	**60-63**	

^Based upon SSC placement score

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

Ω MTH125 College Algebra should be taken by students planning to transfer to a four-year university

******See Technical Elective list page.

TECHNICAL ELECTIVES: Two (2) credit hours minimum **2250**

1718 Catalog Effective Summer 2017	AUTOMOTIVE TECHNOLOGY	2250

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
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	3	AUT132	
AUT136	Practical Automotive Detailing Applications	2	AUT132	
AUT137	ASE Test Preparation	2		
AUT138	Applied Automotive Principles	4		
AUT141	Vehicle Chassis Systems	2		
AUT142	Auto Electrical Systems Toyota	2		
AUT143	Auto HVAC Systems Toyota 750	1		
AUT251	Automotive Drivetrains I	1		
AUT252	Automotive Drivetrains II	1		
AUT253	Computerized Vehicle Controls	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	Automotive Aftermarket Vehicle Powertrain Modifications	3	AUT123	
AUT257	Automotive Aftermarket Vehicle Chassis Modifications	3	AUT124	
AUT191	Automotive CO-OP 1	2		
AUT192	Automotive CO-OP 2	2		
AUT193	Automotive CO-OP 3	2		
AUT194	Automotive CO-OP 4	2		
AUT 224	Auto Diesel Systems	2	AUT 121	
AUT228	Auto Service Management	2		
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

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.

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2251

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 I	3	AUT121	
AUT226	Automotive Drivetrain II	3	AUT121	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH107	Industrial Math^ Ω	3	(MTH091 and MTH092) **or** Proficiency	
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
PHL122	Ethics	3		
	Total	**30**		
	TOTAL CREDIT HOURS	**62**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
Ω MTH 125 College Algebra should be taken by students planning to transfer to a four-year university.

1718 Catalog Effective Summer 2017	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	3	
		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^	3	IDS102 **or** Proficiency
		13	
Summer Semester			
AUT123	Engine Diagnosis and Major Service	4	AUT121
AUT126	Automotive HVAC Systems	2	AUT121
ENG124	College Composition^	3	ENG 011 **or** 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	3	ENG124
		14	
Fourth Semester			
AUT227	Computerized Vehicle Control	3	AUT125
AUT225	Automotive Drivetrain I	3	AUT121
AUT226	Automotive Drivetrain II	3	AUT121
AUT194	Automotive CO-OP 4	2	
MTH107	Industrial Math^ Ω	3	(MTH091 and MTH092) **or** Proficiency
		14	
	TOTAL CREDITS	**62**	

^Based upon SSC placement score

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

+Minimum grade of "B" required

Ω MTH 125 College Algebra should be taken by students planning to transfer to a four-year university.

ONE-YEAR CERTIFICATE

1-YEAR AUTOMOTIVE 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.

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2256

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 I	3	AUT121	
AUT226	Automotive Drivetrain II	3	AUT121	
AUT227	Computerized Vehicle Control	3	AUT125	
AUT233	Automotive Diagnostic Applications	2	AUT223	
	TOTAL CREDIT HOURS	**41**		

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

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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*
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	4	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	3	AUT125
		15	
Third Semester			
AUT222	Engine System Performance Diagnosis	3	AUT125
AUT225	Automotive Drivetrain I	3	AUT121
AUT226	Automotive Drivetrain II	3	AUT121
AUT233	Automotive Diagnostic Applications	2	AUT223
		11	
	TOTAL CREDITS	**41**	

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

ONE-YEAR CERTIFICATE

COMPREHENSIVE AUTOMOTIVE TECHNOLOGY CERTIFICATE

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.

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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 Advance Automotive Technologies	2	AUT223	
	TOTAL CREDIT HOURS	**43**		

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

1718 Catalog Effective Summer 2017	**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	4	AUT121
		11	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT126	Automotive HVAC Systems	2	AUT121
		10	
Third Semester			
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
		12	
Fourth Semester			
AUT225	Automotive Drivetrain I	3	AUT121
AUT226	Automotive Drivetrain II	3	AUT121
AUT233	Automotive Diagnostic Applications	2	AUT223
AUT234	Alternative Fuels and Advance Automotive Technologies	2	AUT223
		10	
	TOTAL CREDITS	**43**	

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

ASSOCIATE OF APPLIED SCIENCE

DESIGN 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. 3357:15-13-06.

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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 **or** AIT122	Manufacturing Processes **or** Machine Tools	3 **or** 4		
MET228	Machine Design	4	MET124	
DET126	Customizing AutoCAD	3	DET125	
DET230	Advanced AutoCAD (Inventor)	3	DET125	
DET131	Pro/ENGINEER (Creo Parametric)	3	DET125	
DET132	SolidWorks	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	2		
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**31**		
	TOTAL CREDIT HOURS	**62-63**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
[1]Arts & Humanities Elective: 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.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
DET121	Engineering Drawing	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
DET125	Basic AutoCAD	3	
		18	
Second Semester			
DET230	Advanced AutoCAD (Inventor)	3	DET125
DET124	Working Drawings	3	DET121 **and** Co-DET125
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221
DET126	Customizing AutoCAD	3	DET125
		17	
Third Semester			
DET226	Geometric Dimensioning and Tolerancing	2	DET124
MET123	Material Science	2	
MET225	Manufacturing Processes	3	
or	**or**	**or**	
AIT122	Machine Tools	4	
DET131	Pro/ENGINEER (Creo Parametric)	3	DET125
MET223	Dynamics	2	MET124
		12-13	
Fourth Semester			
MET226	Technical Project - Mechanical and Design	2	Pre-Co-MET228 **and** Pre-Co-DET125
MET228	Machine Design	4	MET124
ENG221	Technical Report Writing	3	ENG124
Arts & Humanities Elective[1]		3	*Check for prerequisites*
DET132	SolidWorks	3	DET125
		15	
	TOTAL CREDITS	**62-63**	

^Based on SSC placement scores

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

[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

ASSOCIATE OF APPLIED SCIENCE

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. 3357:15-13-06.

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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 **or** Pre-Co-PHY221	
MET221	Advanced Strength of Materials	2	MET124	
MET222	Fluid Power	4	MET124	
MET223	Dynamics	2	MET124	
MET225 **or** AIT122	Manufacturing Processes **or** Machine Tools	3 **or** 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	[(MTH093 and MTH094) 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	Advanced AutoCAD (Inventor)	3	DET125	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MET123	Material Science	2		
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
	Select one (1) Arts & Humanities Elective[1]	3	*Check for prerequisites*	
	Total	**30**		
	TOTAL CREDIT HOURS	**61-62**		

^Based on SSC placement scores

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

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

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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*
DET121	Engineering Drawing	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
MET123	Material Science	2	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		17	
Second Semester			
DET125	Basic AutoCAD	3	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221
MET225	Manufacturing Processes	3	
or	**or**	**or**	
AIT122	Machine Tools	4	
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		14-15	
Third Semester			
DET230	Advanced AutoCAD (Inventor)	3	DET125
MET221	Advanced Strength of Materials	2	MET124
MET222	Fluid Power	4	MET124
MET228	Machine Design	4	MET124
		13	
Fourth Semester			
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** 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 Elective[1]		3	*Check for prerequisites*
		17	
	TOTAL CREDITS	**61-62**	

^Based on SSC placement scores

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

[1]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. 3357:15-13-06.

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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 **or** Pre Co-PHY221	
MET229	Introduction to Alternative and Renewable Energy / Fuel Cells	3		
MET228	Machine Design	4	MET124	
MET225 **or** AIT122	Manufacturing Processes **or** Machine Tools	3 **or** 4		
MET230	Analysis and Applications of Types 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	Advanced AutoCAD (Inventor)	3	DET125	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) 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^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **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	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective[1]	3	*Check for prerequisites*	
	Total	**30**		
	TOTAL CREDIT HOURS	**63-64**		

^Based on SSC placement scores

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

⅄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.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

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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*
MET229	Introduction to Alternative and Renewable Energy / Fuel Cells	3	
CHM141	General Chemistry I (lab)⅄	5	CHM101 **or** Proficiency
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
DET125	Basic AutoCAD	3	
		20	
Second Semester			
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221
MET230	Analysis and Applications of Types of Fuel Cells	3	MET229
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		14	
Third Semester			
MET228	Machine Design	4	MET124
MET231	Fuel Cell Systems	3	MET230
DET230	Advanced AutoCAD (Inventor)	3	DET125
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** 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 Elective[1]		3	*Check for prerequisites*
		15-16	
	TOTAL CREDITS	**63-64**	

^Based on SSC placement scores

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

⅄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.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

ONE-YEAR CERTIFICATE

FUEL CELL 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. 3357:15-13-06.

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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	[(MTH093 and MTH094) or Proficiency] **or** 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	(MTH093 and MTH094) **or** Proficiency	
	Total	**12**		
	TOTAL CREDIT HOURS	**31**		

^ Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

1718 Catalog Effective Summer 2017	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^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
MET229	Introduction to Alternative and Renewable Energy / Fuel Cells	3	
		9	
Second Semester			
MET230	Analysis/Applications of Fuel Cells	3	MET229
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
DET125	Basic AutoCAD	3	
MET225	Manufacturing Processes	3	
		13	
Third Semester			
MET231	Fuel Cell Systems	3	MET230
MET232	Fuel Cell Project	3	MET231
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		9	
	TOTAL CREDITS	**31**	

^ Based on SSC placement scores

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

ONE-YEAR CERTIFICATE

SUSTAINABLE/ALTERNATIVE ENERGY 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. 3357:15-13-06.

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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	[(MTH093 and MTH094) or Proficiency] **or** 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	(MTH093 and MTH094) **or** Proficiency	
DET125	Basic AutoCAD	3		
DET230	Advanced AutoCAD (Inventor)	3	DET125	
	Total	**11**		
	TOTAL CREDIT HOURS	**33**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
**Eight week courses

1718 Catalog Effective Summer 2017	**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	(MTH093 and MTH094) **or** Proficiency
AET121	Sustainable/Alternative Energy Sources	3	
		8	
Second Semester			
AET122	Analysis/Apps of Sustainable Alternative Energy	3	AET121
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
MET225	Manufacturing Processes	3	
DET125	Basic AutoCAD	3	
		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	Advanced AutoCAD (Inventor)	3	DET 125
		12	
	TOTAL CREDITS	**33**	

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
**Eight week courses

ASSOCIATE OF SCIENCE

PRE-ENGINEERING – MECHANICAL 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. 3357:15-13-06.

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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 EXPERIENCE				
SSC101	Student Success Seminar^^	1	*Take first semester*	
WRITTEN & ORAL COMMUNICATION				
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOCIAL & BEHAVIORAL SCIENCES				
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity	3		
ARTS & HUMANITIES				
HIS122	U.S. History II from 1877	3		
PHL122	Ethics	3		
SCIENCES & MATHEMATICS				
CHM141	General Chemistry I (lab)^⅄	5	CHM101 **or** Proficiency	
CHM142	General Chemistry II (lab)	5	CHM141	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **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 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	2		
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221	
MET221	Advanced Strength of Materials	2	MET124	
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores

^^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.

1718 Catalog Effective Summer 2017	PRE-ENGINEERING – MECHANICAL ENGINEERING	4054

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 (w/lab)^⅄	5	CHM101 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
		14	
Second Semester			
PHL122	Ethics	3	
SOC225	Cultural Diversity	3	
MTH223	Analytical Geometry and Calculus 1^*	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
CHM142	General Chemistry II (w/lab)	5	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** Pre-Co-PHY221
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
		16	
Fourth Semester			
CST121	Modeling and Simulation	3	MTH221 **or** MTH223
MET221	Advanced Strength of Materials	2	MET124
MET123	Material Science	2	
HIS122	US History II from 1877	3	
DET125	Basic AutoCAD	3	
		13	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores

^^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.

1718 Catalog Effective Summer 2017	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 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.

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 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 Dr. Osama Jadaan, 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 BS degree in four years. You can email him at jadaanos@mountunion.edu or call 330-823-5989.

ASSOCIATE OF APPLIED SCIENCE

ELECTRICAL/ELECTRONIC 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

4100

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 **or** 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	
EET125	Circuit Manufacturing Techniques	1	EET120	
EET126	Electrical Machines	4	Pre-Co-EET122	
EET128	NEC and Electrical Systems Design	2	EET122	
EET226	Transmission and Distribution	3	EET122	
EET227	PLCs and Industrial Controls I	3	EET120 **or** EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
EET232	Industrial Electronics	4	EET123	
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)	
CSE229	Visual Basic Development	3	CSE122	
DET125	Basic AutoCAD	3		
EET263	Industrial Sensors and Advanced Applications	2	EET120 **or** EST230	
ENG124	College Composition^	3	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	(MTH093 and MTH094) **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.[1]	3	*Check for prerequisites*	
	Total	**30**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Revised 2/2017

1718 Catalog Effective Summer 2017	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) **and (**ITD100 or Proficiency)
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** Pre-Co-MTH135
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **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)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		16	
Third Semester			
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
CSE229	Visual Basic Development	3	CSE122
		14	
Fourth Semester			
EET226	Transmission and Distribution	3	EET122
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[1]		3	*Check for prerequisites*
EET263	Industrial Sensors and Adv. Applications	2	EET120 **or** EST230
EET125	Circuit Manufacturing Techniques	1	EET120
		17	
	TOTAL CREDITS	**63**	

^Based on SSC placement scores

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

[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

ASSOCIATE OF APPLIED SCIENCE

ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY – ELECTRO-MECHANICAL MAJOR

1718 Catalog
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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. 3357:15-13-06.

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 **or** 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 **or** EST230	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** 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	2		
	Total	**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		
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	(MTH093 and MTH094) **or** Proficiency	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from list below[1]	3	*Check for pre-requisites*	
	Total	**30**		
	TOTAL CREDIT HOURS	**64**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Revised 3/2017

1718 Catalog Effective Summer 2017	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) **and** (ITD100 or Proficiency)
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** Pre-Co-MTH135
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
		16	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 **or** Pre-Co-MTH135) **and** EET120
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221
EET126	Electrical Machines	4	Pre-Co-EET122
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		16	
Third Semester			
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 **or** EST230
MET123	Material Science	2	
ENG221	Technical Report Writing	3	ENG124
DET125	Basic AutoCAD	3	
		18	
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	
EET263	Industrial Sensors and Advanced Applications	2	EET120 **or** EST230
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		14	
	TOTAL CREDITS	**64**	

^Based on SSC placement scores

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

[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

ASSOCIATE OF SCIENCE

PRE-ENGINEERING – ELECTRICAL 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. 3357:15-13-06.

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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 EXPERIENCE				
SSC101	Student Success Seminar^^	1	*Take first semester*	
WRITTEN & ORAL COMMUNICATION				
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOCIAL & BEHAVIORAL SCIENCES				
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity	3		
ARTS & HUMANITIES				
HIS122	U.S. History II from 1877	3		
PHL122	Ethics	3		
SCIENCES & MATHEMATICS				
CHM141	General Chemistry I (lab)^⍋	5	CHM101 **or** Proficiency	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **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 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 **or** 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) **and** (ITD100 or Proficiency)	
CST121	Modeling and Simulation	3	MTH221 **or** MTH223	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221	
	TOTAL CREDIT HOURS	**64**		

^Based on SSC placement scores

^^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.

1718 Catalog Effective Summer 2017	PRE-ENGINEERING – ELECTRICAL ENGINEERING	4102

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)^⅄	5	CHM101 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** Pre-Co-MTH135
		18	
Second Semester			
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	3	
		14	
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** Pre-Co-PHY221
		13	
Fourth Semester			
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
MTH227	Ordinary Differential Equations	3	MTH224
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
CST121	Modeling and Simulation	3	MTH221 **or** MTH223
HIS122	US History II from 1877	3	
		15	
	TOTAL CREDITS	**64**	

^Based on SSC placement scores

^^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.

ASSOCIATE OF APPLIED SCIENCE

CIVIL 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. 3357:15-13-06.

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Engineering Technologies Division *Engineering Technology Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	
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	MET124	
CET226	Estimating	3	(MTH125 or MTH135) **and** CET121 **and** ITD122 **and** (CET122 or DET125 or CET237)	
CET227	Surveying I	3	MTH125 **or** MTH135	
CET228	Surveying II	3	CET227	
CET232	Land Planning and Design	3	CET227 **and** (CET122 or CET124 or DET125)	
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 **and** CET122 **and** DET125	
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*	
CET121	Building Materials and Construction Methods	3		
DET125	Basic AutoCAD	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
	Select one (1) Arts & Humanities Elective from list below.[1]	3	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores

^^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.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ENG124	College Composition^	3	ENG011 **or** Proficiency
CET121	Building Materials and Construction Methods	3	
CET122	Architectural Drafting I	3	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		18	
Second Semester			
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221
DET125	Basic AutoCAD	3	
CET227	Surveying I	3	MTH125 **or** MTH135
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		14	
Third Semester			
CET125	Soil Mechanics	3	(MTH125 or MTH135) **and** MET124
ENG221	Technical Report Writing	3	ENG124
CET223	Structural Design I	3	MET124
CET222	Concrete and Asphalt Testing	3	(MTH125 or MTH135) **and** CET121
CET232	Land Planning and Design	3	CET227 **and** (CET122 or CET124 or DET125)
		15	
Fourth Semester			
CET226	Estimating	3	(MTH125 or MTH135) **and** CET121 **and** ITD122 **and** (CET122 or DET125 or CET237)
CET236	Global Positioning Systems	3	CET227
CET228	Surveying II	3	CET227
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 **and** CET122 **and** DET125
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		15	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores

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

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

ASSOCIATE OF APPLIED SCIENCE

CIVIL ENGINEERING TECHNOLOGY – ARCHITECTURAL 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. 3357:15-13-06.

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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	MET124	
CET225	Sustainable Building Service Systems	3	CET121	
CET226	Estimating	3	(MTH125 or MTH135) **and** CET121 **and** ITD122 **and** (CET122 or DET125 or CET237)	
CET227	Surveying I	3	MTH125 **or** MTH135	
CET232	Land Planning and Design	3	CET227 **and** (CET122 or CET124 or DET125)	
CET233	Architectural Design	3	CET122 **and** CET123	
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 **and** CET122 **and** DET125	
CET235	Construction Management, Job Cost and Safety	3	CET121 **and** ITD122	
	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 **or** Pre-Co-PHY221	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from the list below.[1]	3	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

1718 Catalog Effective Summer 2017	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	ENG011 **or** Proficiency
CET121	Building Materials and Construction Methods	3	
CET122	Architectural Drafting I	3	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		18	
Second Semester			
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** 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)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		14	
Third Semester			
ENG221	Technical Report Writing	3	ENG124
DET125	Basic AutoCAD	3	
CET223	Structural Design I	3	MET124
CET232	Land Planning and Design	3	CET227 **and** (CET122 or CET124 or DET125)
CET235	Construction Management, Job Cost and Safety	3	CET121 **and** ITD122
		15	
Fourth Semester			
CET226	Estimating	3	(MTH125 or MTH135) **and** CET121 **and** ITD122 **and** (CET122 or DET125 or CET237)
CET225	Sustainable Building Service Systems	3	CET121
CET233	Architectural Design	3	CET121 **and** CET123
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 **and** CET122 **and** DET125
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		15	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores

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

[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

ASSOCIATE OF APPLIED SCIENCE

CIVIL ENGINEERING TECHNOLOGY – CONSTRUCTION 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. 3357:15-13-06.

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Engineering Technologies Division *Engineering Technology Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET125 **or** CET222	Soil Mechanics **or** Concrete and Asphalt Testing	3 **or** 3	(MTH125 or MTH135) **and** MET124 **or** (MTH125 or MTH135) **and** CET121	
CET223	Structural Design I	3	MET124	
CET225	Sustainable Building Service Systems	3	CET121 **and** MTH135	
CET226	Estimating	3	(MTH125 or MTH135) **and** CET121 **and** ITD122 **and** (CET122 or DET125 or CET237)	
CET227	Surveying I	3	MTH125 **or** MTH135	
CET232	Land Planning and Design	3	CET227 **and** (CET122 or CET124 or DET125)	
CET235	Construction Management, Job Cost and Safety	3	CET121 **and** ITD122	
CET236	Global Positioning System	3	CET227	
CET237	Interpreting Construction Documents	3		
CET239	Building Code Applications	3	CET121 **and** (CET237 or CET122)	
	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		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **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.[1]	3	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores

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

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

1718 Catalog Effective Summer 2017	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^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
CET121	Building Materials and Construction Methods	3	
CET237	Interpreting Construction Documents	3	
DET125	Basic AutoCAD	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		18	
Second Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
MET124	Statics and Strength of Materials	4	Pre-Co-PHY121 **or** Pre-Co-PHY221
CET227	Surveying I	3	MTH125 **or** MTH135
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		14	
Third Semester			
CET125	Soil Mechanics	3	(MTH125 or MTH135) **and** MET124
or	**or**	**or**	
CET222	Concrete and Asphalt Testing	3	(MTH125 or MTH135) **and** CET121
Arts & Humanities Elective[1]		3	*Check for prerequisites*
CET223	Structural Design I	3	MET124
CET232	Land Planning and Design	3	CET227 **and** (CET122 or CET124 or DET125)
CET235	Construction Management, Job Cost and Safety	3	CET121 **and** ITD122
		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	(MTH125 or MTH135) **and** CET121 **and** ITD122 **and** (CET122 or DET125 or CET237)
CET236	Global Positioning System	3	CET227
		15	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores

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

[1]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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2017 **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 EXPERIENCE				
SSC101	Student Success Seminar^^	1	*Take first semester*	
WRITTEN & ORAL COMMUNICATION				
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOCIAL & BEHAVIORAL SCIENCES				
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity	3		
ARTS & HUMANITIES				
HIS122	U.S. History II from 1877	3		
PHL122	Ethics	3		
SCIENCES & MATHEMATICS				
CHM141	General Chemistry I (lab)^⅄	5	CHM101 **or** Proficiency	
CHM142	General Chemistry II (lab)	5	CHM141	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **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 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 **or** Pre-Co-PHY221	
MET221	Advanced Strength of Materials	2	MET124	
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement scores

^^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.

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)^⅄	5	CHM101 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
		14	
Second Semester			
PHL122	Ethics	3	
SOC225	Cultural Diversity	3	
MTH223	Analytical Geometry and Calculus 1^*	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
CHM142	General Chemistry II (lab)	5	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** Pre-Co-PHY221
CST121	Modeling and Simulation	3	MTH221 **or** MTH223
		16	
Fourth Semester			
DET125	Basic AutoCAD	3	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency
HIS122	US History II from 1877	3	
MET221	Advanced Strength of Materials	2	MET124
MTH227	Ordinary Differential Equations	3	MTH224
		14	
	TOTAL CREDITS	**63**	

^Based on SSC placement scores

^^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.

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, 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 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.

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 Dr. Osama Jadaan, 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 e-mail him at jadaanos@mountunion.edu or call 330-823-5989.

ASSOCIATE OF APPLIED SCIENCE

ELECTRIC POWER UTILITY TECHNOLOGY*
LINE WORKER 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. 3357:15-13-06.

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Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits & Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
IET121	Industrial Management Concepts	2		
EST129	Switchgear, Transformers & Controls	2	EET122 **or** EST230	
EST235	Power Generation & 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	(MTH091and MTH092) **or** Proficiency	
PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108 or Proficiency] **and** [IDS102 or Proficiency]	
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
PHL122	Ethics	3		
ENG124	College Composition^	3	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**		

* NOTE: Initial enrollment and continued participation in this program is at the sole discretion of The FirstEnergy Corp of Akron, Ohio.

^Based on SSC placement scores.

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

1718 Catalog Effective Summer 2017	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	ENG011 **or** Proficiency
EUT121	Overhead Line Technology I	5	
MTH107	Industrial Math^	3	(MTH091and MTH092) **or** Proficiency
		15	
Second Semester			
EST230	Electrical Circuits & Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
PSY124	Industrial / Organizational Psychology	3	
PHL122	Ethics	3	
COM123	Small Group Communication^	3	IDS102 **or** Proficiency
EUT122	Overhead Line Technology II	5	EUT121
		18	
Third Semester			
PHY101	Principles of Physics(lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108 or Proficiency] **and** [IDS102 or Proficiency]
BUS122	Basic Economics^	3	IDS102 **or** Proficiency
EST235	Power Generation & Grid Technology	3	EST230
EUT221	Overhead Line Technology III	5	EUT122
		15	
Fourth Semester			
FIN110	Personal Finance	2	
ENG221	Technical Report Writing	3	ENG124
IET121	Industrial Management Concepts	2	
EST129	Switchgear, Transformers & Controls	2	EET122 **or** EST230
EUT222	Overhead Line Technology IV	5	EUT221
		14	
	TOTAL CREDITS	**62**	

* NOTE: Initial enrollment and continued participation in this program is at the sole discretion of The FirstEnergy Corp of Akron, Ohio.

^Based on SSC placement scores.

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

ASSOCIATE OF APPLIED SCIENCE

ELECTRIC POWER UTILITY TECHNOLOGY*
SUBSTATION WORKER 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. 3357:15-13-06.

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Engineering Technologies Division

Engineering Technology Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits & Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
IET121	Industrial Management Concepts	2		
EST129	Switchgear, Transformers & Controls	2	EET122 **or** EST230	
EST235	Power Generation & 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	(MTH091 and MTH092) **or** Proficiency	
PHY101	Principles of Physics(lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108 or Proficiency] **and** [IDS102 or Proficiency]	
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
PHL122	Ethics	3		
ENG124	College Composition^	3	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**		

* NOTE: Initial enrollment and continued participation in this program is at the sole discretion of The FirstEnergy Corp of Akron, Ohio.

^Based on SSC placement scores.

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

1718 Catalog Effective Summer 2017	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	ENG011 **or** Proficiency
EUT123	Substation Technology I	5	
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
		15	
Second Semester			
EST230	Electrical Circuits & Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
PSY124	Industrial / Organizational Psychology	3	
PHL122	Ethics	3	
COM123	Small Group Communication^	3	IDS102 **or** Proficiency
EUT124	Substation Technology II	5	EUT123
		18	
Third Semester			
PHY101	Principles of Physics(lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108 or Proficiency] **and** [IDS102 or Proficiency]
BUS122	Basic Economics^	3	IDS102 **or** Proficiency
EST235	Power Generation & Grid Technology	3	EST230
EUT224	Substation Technology III	5	EUT124
		15	
Fourth Semester			
FIN110	Personal Finance	2	
ENG221	Technical Report Writing	3	ENG124
IET121	Industrial Management Concepts	2	
EST129	Switchgear, Transformers & Controls	2	EET122 **or** EST230
EUT225	Substation Technology IV	5	EUT224
		14	
	TOTAL CREDITS	**62**	

*NOTE: Initial enrollment and continued participation in this program is at the sole discretion of The FirstEnergy Corp of Akron, Ohio.

^ Based on SSC placement scores.

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

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. 3357:15-13-06.

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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	(MTH091 and MTH092) **or** Proficiency	
MST221	Mechanical Drive Components	3		
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
IET270	Dimensional Metrology and Inspection I^	3	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
AIT139	Introduction to Robotics	2		
MST125	Basic Pumps	3		
MET225	Manufacturing Processes	3		
TECHNICAL ELECTIVES: 7 *credit hours minimum (typically 2 to 3 classes)*				
	See Technical Elective list below.[2]	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	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108 or Proficiency] **and** [IDS102 or Proficiency]	
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121 **or** COM123	Effective Speaking **or** Small Group Communication^	3 **or** 3	IDS102 **or** Proficiency	
IET121	Industrial Management Concepts	2		
MET123	Material Science	2		
	Select two (2) courses of Arts & Humanities and/or Social & Behavioral Sciences Electives from the list below.[1]	6	*Check for prerequisites*	
	Total	**30**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement scores

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

[1] Arts & Humanities and/or Social & Behavioral Sciences Electives: any course with the following catalog entry: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122, SOC, PSY

[2] Technical Electives (more details on next page): AIT122, AIT123, IET223, AIT221, AIT124, AIT125, AIT126, AIT220, DET125, MST136, MST137, MST138, MST139, MST124, MST135, MST126, MST127, MST128, MST131, MST133, MST225, AIT137, AIT225, AIT130, AIT134, AIT222, HVC124, AIT131, AIT133, CDL121##, CDL122, CDL123, ETD225, ETD226, ETD227, ETD228, ETD229, AIT140, AIT227, EET123, EET227

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	CNC	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	
CDL121	CDL Class A – Safe Operation and Control ##	5	Co-CDL122 **and** Co-CDL123	
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		
AIT131	Electrical Applications and Safety	2		
MST124	Furnace Combust Principles	1		
MST135	Plumb and Pipe Code Principles	3		
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		
ETD226	Engineering Special Topics	2		
ETD227	Engineering Special Topics	3		
ETD228	Engineering Special Topics	4		
ETD229	Engineering Special Topics	5		
AIT140	3-D Printing	3		
AIT227	Advanced 3-D Printing	3	AIT140	

^Based on SSC placement scores

##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

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^	3	ENG011 **or** Proficiency
MST121	Blueprint Reading	2	
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
IET270	Dimensional Metrology and Inspection I^	3	[(MTH093 and MTH094) or Proficiency] **or** MTH107
		15	
Second Semester			
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
IET121	Industrial Management Concepts	2	
MET123	Material Science	2	
		14	
Third Semester			
ENG221	Technical Report Writing	3	ENG124
PHY101	Principles of Physics^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108 or Proficiency] **and** [IDS102 or Proficiency]
COM121	Effective Speaking		
or	**or**	3	
COM123	Small Group Communication^		IDS102 **or** Proficiency
AIT139	Introduction to Robotics	2	
MET225	Manufacturing Processes	3	
Arts & Humanities and/or Social & Behavioral Sciences Elective[1]		3	*Check for prerequisites*
		18	
Fourth Semester			
MST221	Mechanical Drive Components	3	
Technical Electives [2] *##*		7	*Check for prerequisites*
MST125	Basic Pumps	3	
Arts & Humanities and/or Social & Behavioral Sciences Elective[1]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**63**	

^Based on SSC placement scores

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

##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: any course with the following catalog entry: ENG 233, ENG234,ENG236, ENG237, HIS121, HIS122, PHL122, SOC, PSY

[2]Technical Electives: AIT122, AIT123, IET223, AIT221, AIT124, AIT125, AIT126, AIT220, DET125, MST136, MST137, MST138, MST139, MST124, MST135, MST126, MST127, MST128, MST131, MST133, MST225, AIT137, AIT225, AIT130, AIT134, AIT222, HVC124, AIT131, AIT133, CDL121##, CDL122, CDL123, ETD225, ETD226, ETD227, ETD228, ETD229, AIT140, AIT227, EET123, EET227

ONE-YEAR CERTIFICATE

CNC TECHNICAL

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.

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4308

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	CNC Programming	4		
AIT221	Advanced CNC Programming	3	IET223 **or** ARL121 **or** ARL122	
DET121 **or** MST121	Engineering Drawing **or** Blueprint Reading	3 **or** 2		
DET125	Basic AutoCAD	3		
IET270	Dimensional Metrology and Inspection I ^	3	[(MTH093 and MTH094) or Proficiency] **or** 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 **or** Proficiency	
MET123	Material Science	2		
MTH107	Industrial Math^ Ω	3	(MTH091 and MTH092) **or** Proficiency	
	Total	**9**		
	TOTAL CREDIT HOURS	**36-37**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
Ω MTH125 College Algebra should only be taken by students planning to transfer to a four-year institution.

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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^ Ω	3	(MTH091 and MTH092) **or** Proficiency
AIT122	Machine Tools	4	
IET270	Dimensional Metrology and Inspection I^	3	[(MTH093 and MTH094) or Proficiency] **or** MTH107
DET121 **or** MST121	Engineering Drawing **or** Blueprint Reading	3 **or** 2	
		13-14	
Second Semester			
DET125	Basic AutoCAD	3	
AIT123	Advanced Machine Tools	4	AIT122
IET223	CNC Programming	4	
MET123	Material Science	2	
		13	
Summer Semester			
AIT221	Advanced CNC Programming	3	IET223 **or** ARL121 **or** ARL122
AIT137	CAD/CAM	4	AIT122 **and** IET223
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		10	
	TOTAL CREDITS	**36-37**	

^Based on SSC placement scores

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

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

ONE-YEAR CERTIFICATE

WELDING 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. 3357:15-13-06.

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4309

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	
	Total	**23**		
NON-TECH Course Number	**Course Title**	**Credits**	**Pre- and Co-Requisites**	**Completed Sem./Year**
SSC101	Student Success Seminar^^	1	*Take first semester*	
MTH107	Industrial Math^ Ω	3	(MTH091 and MTH092) **or** Proficiency	
AIT122	Machine Tools	4		
MET123	Material Science	2		
	Total	**10**		
	TOTAL CREDIT HOURS	**33**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
Ω MTH125 College Algebra should only be taken by students planning to transfer to a four-year institution.

1718 Catalog Effective Summer 2017	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	
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Laboratory	3	Co-MST127
AIT122	Machine Tools	4	
		13	
Second Semester			
MST136	3G Welding Certification Exam Preparatory	2	MST127 **and** MST128
MST138	Preparatory Gas Tungsten Arc Welding	5	MST127 **and** MST128
MTH107	Industrial Math^ Ω	3	(MTH091 and MTH092) **or** Proficiency
MET123	Material Science	2	
		12	
Third Semester			
MST137	6G Welding Certification Exam Preparatory	5	MST127 **and** MST128
MST139	Gas Tungsten Arc Welding-Titanium/Stainless Steel	3	MST138
		8	
	TOTAL CREDITS	**33**	

^Based on SSC placement scores

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

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

ASSOCIATE OF APPLIED SCIENCE

ELECTRICAL 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. 3357:15-13-06.

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4404

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 **or** 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	
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	
EET125	Circuit Manufacturing Techniques	1	EET120	
EET263	Industrial Sensors and Advanced Applications	2	EET120 **or** EST230	
	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	
MST121	Blueprint Reading	2		
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from the list below.[1]	3	*Check for prerequisites*	
	Total	**30**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

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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^	3	ITD100 **or** Proficiency
MST121	Blueprint Reading	2	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
		15	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) **and** EET120
EET125	Circuit Manufacturing Techniques	1	EET120
EET263	Industrial Sensors and Advanced Applications	2	EET120 **or** EST230
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		16	
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 **or** EST230
MST221	Mechanical Drive Components	3	
ENG221	Technical Report Writing	3	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[1]		3	*Check for prerequisites*
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		16	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores.

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

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

ASSOCIATE OF APPLIED SCIENCE

ELECTRICAL MAINTENANCE TECHNOLOGY – SOLAR ENERGY 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. 3357:15-13-06.

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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 **or** 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	
EET128	NEC and Electrical Systems Design	2	EET122	
EET227	PLC's 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	(MTH091 and MTH092) **or** Proficiency	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
PHY121	College Physics I with Algebra^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
	Select one (1) Arts & Humanities Elective from the list below. [1]	3	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
[1] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

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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-requisite
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^	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	(MTH093 and MTH094) **or** Proficiency
ENV165	OSHA 10-Hour Construction Safety	1	
		17	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) **and** EET120
EET125	Circuit Manufacturing Techniques	1	EET120
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
AET121	Sustainable/AET Sources	3	
ENG124	College Composition^	3	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	PLC's and Industrial Controls I	3	EET120 **or** EST230
AET221	Solar Thermal Systems	3	AET 121
ENG221	Technical Report Writing	3	ENG124
		15	
Fourth Semester			
EET126	Electrical Machines	4	Pre-Co-EET122
AET222	Solar Photovoltaic Systems	3	
PHY121	College Physics I with Algebra^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		14	
	TOTAL CREDITS	**63**	

^Based on SSC placement scores.

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

[1] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

ASSOCIATE OF APPLIED SCIENCE

ENVIRONMENTAL, HEALTH, AND SAFETY TECHNOLOGY

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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. 3357:15-13-06.

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 **or** ENV165	OSHA 10-Hour General Industry Safety **or** OSHA 10-Hour Construction Safety	1 **or** 1		
ENV124	Transportation Haz Mat Training	1		
ENV164	Sustainable Green Building Technology	3		
ENV221	OSHA 40-Hour HAZWOPER	2		
ENV222	Industrial Processes and Pollution Control	3	(CHM121 or CHM141) **and** MTH107	
ENV223	Basic Geology/Hydrology	3	MTH107	
ENV224	Air Sampling, Analysis, and Control	3	(CHM121 or CHM141) **and** ENV121	
ENV225	Solid and Hazardous Waste Sampling, Analysis and Management	3	(CHM121 or CHM141) **and** ENV121	
ENV226	Water Sampling, Analysis, and Control	3	(CHM121 or CHM141) **and** ENV121 **and** ENV223	
ENV228	Health and Safety	3	ENV121	
TECHNICAL ELECTIVES: ***Choose two (2) credit hours minimum from the list below***				
ENV125	Intro to Haz Mat and Waste Management	1		
ENV163	Water/Wastewater Math and Chemistry	2		
ENV169	Radiation Safety	2		
ENV127	Water Certificate Exam Preparation	2		
ENV128	Wastewater Certificate Exam Preparation	2		
ENV230	OSHA 8-Hour Refresher +++	1		
ENV231	OSHA 30-Hour General Industry	2		
ENV236	Environmental, Health and Safety Special Projects	3	ENV121 **and** ITD122 **and** ENV221	
	Total	**30-31**		

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	(MTH091 and MTH092) **or** Proficiency	
GIS123	Maps and Map Reading	3		
GIS231	Geographic Information Systems	3	GIS123 **or** ENV223	
CHM121	General, Organic and Biological Chemistry I (lab)^⅄	4	CHM101 **or** Proficiency	
CHM122	General, Organic and Biological Chemistry II (lab)	4	CHM121	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
BIO126	Science, Energy, and the Environment (lab)	4		
	Select one (1) Arts & Humanities Elective from the list below.[1]	3	*Check for prerequisites*	
	Total	**34**		
	TOTAL CREDIT HOURS	**64-65**		

^Based on SSC placement scores

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

⅄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.

+++ENV230 must be taken by students who wish to complete annual refreshers of their 40-Hour HAZWOPER training

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

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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-requisite
SSC101	Student Success Seminar^^	1	*Take first semester*
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
BIO126	Science, Energy, and the Environment (lab)	4	
CHM121	Gen., Org., and Bio Chemistry I (lab)^⅄	4	CHM101 **or** Proficiency
ENV123	OSHA 10-Hour General Industry Safety	1	
or	**or**	**or**	
ENV165	OSHA 10-Hour Construction Safety	1	
		16	
Second Semester			
CHM122	Gen., Org., and Bio Chemistry II (lab)	4	CHM121
ENV164	Sustainable Green Building Technology	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
ENV121	Regulations and Compliance	3	
		15	
Third Semester			
ENV124	Transportation Haz Mat Training	1	
ENV222	Industrial Processes and Pollution Control	3	(CHM121 or CHM141) **and** MTH107
ENV223	Basic Geology/Hydrology	3	MTH107
ENV224	Air Sampling, Analysis, and Control	3	(CHM121 or CHM141) **and** ENV121
GIS123	Maps and Map Reading	3	
Arts & Humanities Elective [1]		3	*Check for prerequisites*
		16	
Fourth Semester			
GIS231	Geographic Information Systems	3	GIS123 **or** ENV223
ENG221	Technical Report Writing	3	ENG124
ENV225	Solid and Hazardous Waste Sampling, Analysis and Management	3	(CHM121 or CHM141) **and** ENV121
ENV226	Water Sampling, Analysis and Control	3	(CHM121 or CHM141) **and** ENV121 **and** ENV223
ENV228	Health and Safety	3	ENV121
Technical Elective [2]		2-3	*Check for prerequisites*
		17-18	
	TOTAL CREDITS	**64-65**	

^Based on SSC placement scores

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

+++ENV230 must be taken by students who wish to complete annual refreshers of their 40-Hour HAZWOPER training

⅄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.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Technical Electives: ENV125, ENV163, ENV169, ENV127, ENV128, ENV230, ENV231, ENV236

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 – Behind the Wheel Street	1	CDL121 **and** CDL122	

*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

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.

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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	
HVC227	HVAC Field Installation Techniques and Procedures	4	Pre-Co-HVC122	
TECHNICAL ELECTIVES: ***21 credit hours minimum***				
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	
HVC232	Advanced HVAC Applications	3	HVC222 **and** HVC227	
HVC234	HVAC Electrical Systems and Applications^	3	Pre-Co-HVC121 **and** [(MTH091 and MTH092) or Proficiency]	
HVC235	Refrigeration	3	HVC122	
HVC236	Advanced HVAC Electrical Applications	3	HVC234	
HVC237	HVAC Commercial Controls	3		
HVC238	Chiller Operations	3	HVC122	
	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	
PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108 or Proficiency] **and** [IDS102 or Proficiency]	
MTH107 **or** MTH125	Industrial Math^ **or** College Algebra^ Ω	3 **or** 4	(MTH091 and MTH092) **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121 **or** COM123	Effective Speaking **or** Small Group Communication^	3 **or** 3	None **or** IDS102 **or** Proficiency	
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective[3]	3	*Check for prerequisites*	
NON-TECH ELECTIVES: ***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		
	Total	**31-32**		
	TOTAL CREDIT HOURS	**62-63**		

See next page for footnote specifics

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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	ENG011 **or** Proficiency
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^ Ω	4	(MTH093 and MTH094) **or** Proficiency
HVC121	HVAC Principles I	3	
HVC122	HVAC Principles II	3	Pre-Co-HVC121
Social & Behavioral Sciences or Arts & Humanities Elective[3]		3	*Check for prerequisites*
		16-17	
Second Semester			
COM121	Effective Speaking	3	None
or	**or**	**or**	**or**
COM123	Small Group Communication^	3	IDS102 **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
HVC227	HVAC Field Installation Techniques and Procedures	4	Pre-Co-HVC122
Non-Technical Elective[2]		3	*Check for prerequisites*
		13	
Third Semester			
ENG221	Technical Report Writing	3	ENG124
Technical Electives[1]		12	*Check for prerequisites*
Non-Technical Elective[2]		2	*Check for prerequisites*
		17	
Fourth Semester			
PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108 or Proficiency] **and** [IDS102 or Proficiency]
Technical Electives[1]		9	*Check for prerequisites*
Non-Technical Elective[2]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**62-63**	

^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

[1]Technical Electives: HVC125, HVC222, HVC223, HVC224, HVC232, HVC234, HVC235, HVC236, HVC237, HVC238

[2]Non-technical Electives: CET121, DET125, ENV231, MST121, MST126

[3]Social & Behavioral Sciences or Arts & Humanities electives: BUS122 (recommended), BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

ONE-YEAR CERTIFICATE

HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION 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. 3357:15-13-06.

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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	Pre-Co-HVC121 **and** [(MTH091 and MTH092) or Proficiency]	
	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 ELECTIVES: 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**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

FULL-TIME STUDENT ADVISING NOTES

Revised 2/2017

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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*
HVC121	HVAC Principles I	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
Non-Technical Elective[2]		3	
		10	
Second Semester			
HVC122	HVAC Principles II	3	Pre-Co-HVC121
HVC125	Sheet Metal Layout and Fabrication	4	
HVC227	HVAC Field Installation Techniques/Procedures	4	Pre-Co-HVC122
HVC234	HVAC Electrical Systems and Applications^	3	Pre-Co-HVC121 **and** [(MTH091 and MTH092) or Proficiency]
		14	
Summer Semester			
HVC223	HVAC System Operation and Troubleshooting – Heating	3	HVC122
HVC224	HVAC System Operation and Troubleshooting – Cooling	3	HVC122
		6	
	TOTAL CREDITS	**30**	

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
[2]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. 3357:15-13-06.

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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 **or** Pre-Co-MTH135	
EET227	PLCs and Industrial Controls I	3	EET120 **or** EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
EET263	Industrial Sensors and Advanced Applications	2	EET120 **or** EST230	
AIT220	Industrial Robotics	4	AIT139	
AIT226	Robotic Vision	2	AIT220	
AIT221	Advanced CNC Programming	3	IET223 **or** ARL121 **or** ARL122	
	Total	**30**		

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)	
CSE229	Visual Basic Development	3	CSE122	
DET125	Basic AutoCAD	3		
NET120	PC Upgrading and Maintenance	3		
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
PHL122	Ethics	3		
	Total	**31**		
	TOTAL CREDIT HOURS	**61**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

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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*
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
MST221	Mechanical Drive Components	3	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		15	
Second Semester			
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** Pre-Co-MTH135
DET125	Basic AutoCAD	3	
AIT139	Introduction to Robotics	2	
CSE229	Visual Basic Development	3	CSE122
ENG221	Technical Report Writing	3	ENG124
		15	
Third Semester			
AIT220	Industrial Robotics	4	AIT139
IET223	Computer Numerical Control	4	
EET227	PLCs and Industrial Controls I	3	EET120 **or** EST230
EET263	Industrial Sensors and Advanced Applications	2	EET120 **or** EST230
NET120	PC Upgrading and Maintenance	3	
		16	
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	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		15	
	TOTAL CREDITS	**61**	

^Based on SSC placement scores

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

ONE-YEAR CERTIFICATE

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. 3357:15-13-06.

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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 ELECTIVES: ***2 credit hours minimum***				
AIT220	Industrial Robotics	4	AIT139	
AIT221	Advanced CNC Programming	3	IET223 **or** ARL121 **or** ARL122	
EET263	Industrial Sensors and Advanced Applications	2	EST230 **or** EET120	
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) **and** (ITD100 or Proficiency)	
MTH135	Precalculus^ **–** *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
	Total	**12**		
	TOTAL CREDIT HOURS	**30-32**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.

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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*
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
CSE122	Programming Logic & Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		9	
Second Semester			
AIT139	Introduction to Robotics	2	
DET125	Basic AutoCAD	3	
IET223	Computer Numerical Control	4	
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** Pre-Co-MTH135
		13	
Third Semester			
EET227	PLCs and Industrial Controls I	3	EST230 **or** EET120
MST221	Mechanical Drive Components	3	
Technical Elective[1]		2-4	*Check for prerequisites*
		8-10	
	TOTAL CREDITS	**30-32**	

^Based on SSC placement scores.

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

[1]Technical Electives: AIT220, AIT221, EET228, EET263

	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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2017 **5029**

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	(MTH091 and MTH092) **or** Proficiency	
MST221	Mechanical Drive Components	3		
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** 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	(MTH091 and MTH092) **or** Proficiency	
	Total	**7**		
	TOTAL CREDIT HOURS	**33**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

1718 Catalog Effective Summer 2017	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.

First Semester		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	(MTH091 and MTH092) **or** Proficiency
MST126	Pipefitting Principles and Applications	3	
		15	
Second Semester			
AIT134	Preventive and Predictive Maintenance	3	MST221 **and** MST125
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
EST230	Electrical Circuits and Devices ^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
		13	
Summer Semester			
CSE122	Programming Logic & Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
AIT222	Predictive Maintenance Analysis	2	AIT134
		5	
	TOTAL CREDITS	**33**	

^Based on SSC placement scores

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

ONE-YEAR CERTIFICATE

PETROLEUM INDUSTRIAL MECHANICS 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. 3357:15-13-06.

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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		
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)	
AIT134	Preventive and Predictive Maintenance	3	MST221 and MST125	
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) or Proficiency	
MST125	Basic Pumps	3		
ARL234	Gas Compressions 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	[(MTH093 and MTH094) **or** Proficiency] **or** MTH107	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
	Total	**12-13**		
	TOTAL CREDIT HOURS	**33-34**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

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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*
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^	4	[(MTH093 and MTH094) **or** Proficiency] **or** MTH107
		17	

Second Semester			
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) or Proficiency
MST121	Blueprint Reading	2	
or	**or**	**or**	
DET125	Basic AutoCAD	3	
AIT124	Principles of Rigging	2	
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
AIT134	Preventive and Predictive Maintenance	3	MST221 **and** MST125
		16-17	
	TOTAL CREDITS	**33-34**	

^Based on SSC placement scores

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

	ONE-YEAR CERTIFICATE INDUSTRIAL PROCESS OPERATION 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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2017 **4311**

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	(MTH091 and MTH092) **or** Proficiency	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) **or** Proficiency] **or** MTH107	
EET227	PLCs and Industrial Controls I	3	EET120 **or** 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 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
	Total	**8-9**		
	TOTAL CREDIT HOURS	**33-34**		

^Based on SSC placement scores

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

1718 Catalog Effective Summer 2017	ONE-YEAR CERTIFICATE INDUSTRIAL PROCESS OPERATION TECHNOLOGY	4311

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	(MTH091 and MTH092) **or** Proficiency
PET101	Introduction to the Petroleum Industry	3	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) **or** Proficiency] **or** MTH107
		17	
Second Semester			
ENV221	OSHA 40-Hour HAZWOPER	2	
EET227	PLCs and Industrial Controls I	3	EET120 **or** EST230
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
ARL239	Large Line Unit Compressor Assembly	3	
MST221	Mechanical Drive Components	3	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3	
		16-17	
	TOTAL CREDITS	**33-34**	

^Based on SSC placement scores.

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

ASSOCIATE OF APPLIED SCIENCE

INDUSTRIAL PROCESS OPERATION 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. 3357:15-13-06.

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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
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)	
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	(MTH091 and MTH092) **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	(MTH093 and MTH094) **or** Proficiency	
MTH107 **or** MTH125	Industrial Math^ **or** College Algebra^ Ω	3 **or** 4	(MTH091 and MTH092) **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication^	3 **or** 3 **or** 3	IDS102 **or** Proficiency	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
MST125	Basic Pumps	3		
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**30-32**		
	TOTAL CREDIT HOURS	**60-62**		

See footnotes on next page.

1718 Catalog Effective Summer 2017	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	Basic AutoCAD	3	
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
PET101	Introduction to the Petroleum Industry	3	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) 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	3	
		14	
Third Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
CHM101	Introduction to Chemistry^ ⍋	4	(MTH093 and MTH094) **or** Proficiency
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^ Ω	4	(MTH093 and MTH094) **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
EET228	PLCs and Industrial Controls II	3	EET227
		16-17	
Fourth Semester			
MST125	Basic Pumps	3	
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
COM121	Effective Speaking	3	
or	**or**	**or**	
COM122	Interpersonal Communication	3	
or	**or**	**or**	
COM123	Small Group Communication^	3	IDS102 **or** Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]		3	*Check for prerequisites*
		14	
	TOTAL CREDITS	**60-62**	

^Based on SSC placement scores

^^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.

[1]Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

ASSOCIATE OF APPLIED SCIENCE

PETROLEUM INDUSTRIAL MECHANICS 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. 3357:15-13-06.

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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
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)	
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	(MTH091 and MTH092) **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	(MTH093 and MTH094) **or** Proficiency	
MTH107 **or** MTH125	Industrial Math^ **or** College Algebra^ Ω	3 **or** 4	(MTH091 and MTH092) **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication^	3 **or** 3 **or** 3	IDS102 **or** Proficiency	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
ARL234	Gas Compression and Flow Dynamics	3		
	Select one (1) Social and Behavioral Sciences elective or *Arts and Humanities elective*[1]	3	*Check for prerequisites*	
	Total	**30-32**		
	TOTAL CREDIT HOURS	**60-62**		

^Based on SSC placement scores

^^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.

[1]Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

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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*
ARL234	Gas Compression and Flow Dynamics	3	
PET101	Introduction to the Petroleum Industry	3	
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
MST221	Mechanical Drive Components	3	
		16	
Second Semester			
MST125	Basic Pumps	3	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
ENG124	College Composition^	3	ENG011 **or** Proficiency
AIT124	Principles of Rigging	2	
MST121	Blueprint Reading	2	
or	**or**	**or**	
DET125	Basic AutoCAD	3	
		14-15	
Third Semester			
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
AIT134	Preventive and Predictive Maintenance	3	MST221 **and** MST125
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^ Ω	4	(MTH093 and MTH094) **or** Proficiency
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Laboratory	3	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	(MTH093 and MTH094) **or** Proficiency
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 and Behavioral Sciences elective or *Arts and Humanities elective*[1]	3	*Check for prerequisites*
		15	
	TOTAL CREDITS	**60-62**	

^Based on SSC placement scores

^^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.

[1]Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

ONE-YEAR CERTIFICATE

SHALENET PIPELINE 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. 3357:15-13-06.

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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
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)	
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 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
	Total	**6-7**		
	TOTAL CREDIT HOURS	**33-34**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

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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*
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	[(MTH093 and MTH094) or Proficiency] **or** MTH107
ARL239	Large Line Unit Compressor Assembly	3	
		17	
Second Semester			
PET131	Corrosion Basics	3	
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
PET135	Measurement and Basic Pipeline Operations	3	
MST125	Basic Pumps	3	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3	
		16-17	
	TOTAL CREDITS	**33-34**	

^Based on SSC placement scores

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

ASSOCIATE OF APPLIED SCIENCE

PETROLEUM TECHNOLOGY – PIPELINE 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. 3357:15-13-06.

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4315

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	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)	
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	(MTH093 and MTH094) **or** Proficiency	
MTH107 **or** MTH125	Industrial Math^ **or** College Algebra^Ω	3 **or** 4	(MTH091 and MTH092) **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication^	3 **or** 3 **or** 3	IDS102 **or** Proficiency	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
MST125	Basic Pumps	3		
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**30-32**		
	TOTAL CREDIT HOURS	**60-62**		

See footnotes on next page.

1718 Catalog Effective Summer 2017	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	
PET101	Introduction to the Petroleum Industry	3	
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
MST121	Blueprint Reading	2	
or	**or**	**or**	
DET125	Basic AutoCAD	3	
		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	3	
		15	
Third Semester			
AIT 134	Preventive and Predictive Maintenance	3	MST125 **and** MST221
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^ Ω	4	(MTH093 and MTH094) **or** Proficiency
ENV 121	Regulations and Compliance	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
CHM101	Introduction to Chemistry^ ⅄	4	(MTH093 and MTH094) **or** Proficiency
		16-17	
Fourth Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
COM121	Effective Speaking		
or	**or**		
COM122	Interpersonal Communication	3	
or	**or**		
COM123	Small Group Communication^		IDS102 **or** Proficiency
Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]		3	*Check for prerequisites*
		14	
	TOTAL CREDITS	**60-62**	

^Based on SSC placement scores

^^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.

[1]Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended)

ASSOCIATE OF APPLIED SCIENCE

PETROLEUM TECHNOLOGY – PRODUCTION 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. 3357:15-13-06.

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4323

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	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)	
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	(MTH093 and MTH094) **or** Proficiency	
MTH107 **or** MTH125	Industrial Math^ **or** College Algebra^ Ω	3 **or** 4	(MTH091 and MTH092) **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication^	3	IDS102 **or** Proficiency	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
MST125	Basic Pumps	3		
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	TOTAL	**30-32**		
	TOTAL CREDIT HOURS	**60-62**		

See footnotes on next page.

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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*
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	[(MTH093 and MTH094) or Proficiency] **or** MTH107
MST121	Blueprint Reading	2	
or	**or**	**or**	
DET125	Basic AutoCAD	3	
		15-16	
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	3	
		15	
Third Semester			
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
ARL239	Large Line Unit Compressor Assembly	3	
CHM101	Introduction to Chemistry^ ⅄	4	(MTH093 and MTH094) **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^ Ω	4	(MTH093 and MTH094) **or** Proficiency
		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		
or	**or**		
COM122	Interpersonal Communication	3	
or	**or**		
COM123	Small Group Communication^		IDS102 **or** Proficiency
Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]		3	
		14	
	TOTAL CREDITS	**60-62**	

^Based on SSC placement scores

^^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.

[1]Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended)

	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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2017 **4325**

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	[(MTH093 and MTH094) 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	EST230 **and** (CHM101 or ARL234)	
PET141	Production Operations	3		
PET142	Artificial Lift	3		
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
	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-Hr HAZWOPER	2		
	Total	**6**		
	TOTAL CREDIT HOURS	**32-33**		

^Based on SSC placement scores

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

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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*
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	[(MTH093 and MTH094) or Proficiency] **or** MTH107
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
		16	
Second Semester			
EET227	PLCs and Industrial Controls I	3	EET120 **or** EST230
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
MST121	Blueprint Reading	2	
or	**or**	**or**	
DET125	Basic AutoCAD	3	
PET141	Production Operations	3	
PET142	Artificial Lift	3	
ENV221	OSHA 40-Hr HAZWOPER	2	
		16-17	
	TOTAL CREDITS	**32-33**	

^Based on SSC placement scores

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

ASSOCIATE OF APPLIED SCIENCE

PETROLEUM TECHNOLOGY – INSTRUMENTATION 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. 3357:15-13-06.

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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
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) **or** Proficiency] **or** MTH107	
MST221	Mechanical Drive Components	3		
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)	
ARL234	Gas Compression and Flow Dynamics	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	**33**		
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	(MTH093 and MTH094) **or** Proficiency	
MTH107 **or** MTH125	Industrial Math^ **or** College Algebra^ Ω	3 **or** 4	(MTH091 and MTH092) **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication^	3 **or** 3 **or** 3	IDS102 **or** Proficiency	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **o**r 3		
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective[1]	3	*Check for prerequisites*	
	Total	**27-29**		
	TOTAL CREDIT HOURS	**60-62**		

^Based on SSC placement scores

^^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.

[1]Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended), PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

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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*
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	[(MTH093 and MTH094) or Proficiency] **or** MTH107
MST121	Blueprint Reading	2	
or	**or**	**or**	
DET125	Basic AutoCAD	3	
		15-16	
Second Semester			
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	3	
		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	(MTH093 and MTH094) **or** Proficiency
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^ Ω	4	(MTH093 and MTH094) **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		16-17	
Fourth Semester			
EET228	PLCs and Industrial Controls II	3	EET227
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
COM121	Effective Speaking	3	
or	**or**	**or**	
COM122	Interpersonal Communication	3	
or	**or**	**or**	
COM123	Small Group Communication^	3	IDS102 **or** Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	
	Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*
		14	
	TOTAL CREDITS	**60-62**	

^Based on SSC placement scores

^^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.

[1]Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended)

ONE-YEAR CERTIFICATE

PRODUCTION 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. 3357:15-13-06.

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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		
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) 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	EST230 **and** (CHM101 or ARL234)	
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-Hr HAZWOPER	2		
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
	Total	**8-9**		
	TOTAL CREDIT HOURS	**32-33**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester

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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*
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	[(MTH093 and MTH094) or Proficiency] **or** MTH107
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
		16	
Second Semester			
PET131	Corrosion Basics	3	
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
PET141	Production Operations	3	
PET142	Artificial Lift	3	
ENV221	OSHA 40-Hr HAZWOPER	2	
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3	
		16-17	
	TOTAL CREDITS	**32-33**	

^Based on SSC placement scores

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

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. 3357:15-13-06.

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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	EST230 **and** (CHM101 or ARL234)	
MST221	Mechanical Drive Components	3		
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] or 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	Petroleum Measurement Capstone	3	PET102, PET131, PET135, Pre-Co-PET141, Pre-Co-PET210	
	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	(MTH093 and MTH094) **or** Proficiency	
MTH107 **or** MTH125	Industrial Math^ **or** College Algebra^Ω	3 **or** 4	(MTH091 and MTH092) **or** Proficiency (MTH093 and MTH094) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENV221	OSHA 40-Hour HAZWOPER	2		
COM121 **or** COM122	Effective Speaking **or** Interpersonal Communication	3 **or** 3		
MST121 **or** DET125	Blueprint Reading **or** Basic AutoCAD	2 **or** 3		
Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]		3	*Check for prerequisites*	
	Total	**30-32**		
	TOTAL CREDIT HOURS	**60-62**		

See notes on next page.

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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	ENG011 **or** Proficiency
PET101	Introduction to the Petroleum Industry	3	
ARL234	Gas Compression and Flow Dynamics	3	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) **or** Proficiency] **or** MTH107
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		17	
Second Semester	10 Week Summer Intensive		
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	
		14	
Third Semester			
EET227	PLCs and Industrial Controls I	3	EET120 or EST230
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
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-PET141, Pre-Co-PET210
		14-15	
Fourth Semester			
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH125	College Algebra^Ω	4	(MTH093 and MTH094) **or** Proficiency
CHM101	Introduction to Chemistry^⅄	4	(MTH093 and MTH094) **or** Proficiency
COM121	Effective Speaking	3	
or	**or**	**or**	
COM122	Interpersonal Communication	3	
ENV221	OSHA 40-Hour HAZWOPER	2	
Select one (1) Social & Behavioral Sciences or Arts & Humanities Elective from the list below[1]		3	*Check for prerequisites*
		15-16	
	TOTAL CREDITS	**60-62**	

^Based on SSC placement scores

^^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.

[1]Social & Behavioral Sciences or Arts & Humanities electives: BUS122, BUS221, BUS222, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 (recommended),PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

CAREER ENHANCEMENT CERTIFICATE

ASE TEST PREPARATION ELECTIVES

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.

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Engineering Technologies Division *Automotive and Transportation Department*

The Stark State College Automotive Service Excellence (ASE) test preparation elective courses are designed to prepare the student for the ASE certification and testing process. ASE is the nationally recognized industry standard for automotive technician certification.

In the ASE Test Preparation elective, students will access ASE practice tests, instructional videos, technical reference materials, and discussion forums via Stark State College's approved learning management system. Instructor-led discussions will cover 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.

In the Applied Automotive Principles elective, students will develop greater confidence and better hands-on skills through 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 for ASE certification and to enter the workplace as an automotive technician. Hands-on labs will directly relate to 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.

The courses listed below are electives to the Automotive Technology Associate Degree program (2250).

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT 137	ASE Test Preparation	2		
AUT 138	Applied Automotive Principles	4		
	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.

CAREER ENHANCEMENT CERTIFICATE

AUTOMOTIVE AFTERMARKET VEHICLE MODIFICATIONS

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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.

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**		

1718 Catalog Effective Summer 2017	**CAREER ENHANCEMENT CERTIFICATE** AUTOMOTIVE AFTERMARKET VEHICLE MODIFICATIONS	**2259**

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
		6	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	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	3	AUT124
		12	
	TOTAL CREDITS	**26**	

CAREER ENHANCEMENT CERTIFICATE

AUTOMOTIVE DETAILING

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.

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2260

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**		

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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	3	
		7	
Second Semester			
AUT133	Automotive Interior Detailing	2	AUT132
AUT134	Automotive Under-Hood and Under-Car Detailing	2	AUT132
		4	
Third Semester			
AUT135	Advanced Automotive Detailing Techniques	3	AUT132
AUT136	Practical Automotive Detailing Applications	2	AUT132
		5	
	TOTAL CREDITS	**16**	

CAREER ENHANCEMENT CERTIFICATE

AUTOMOTIVE MAINTENANCE AND LIGHT REPAIR

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.

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2261

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	4	AUT121
		10	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT126	Automotive HVAC Systems	2	AUT121
		10	
	TOTAL CREDITS	**20**	

CAREER ENHANCEMENT CERTIFICATE

AUTOMOTIVE TRANSMISSION AND DRIVELINE

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.

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Effective Summer 2017

2262

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 I	3	AUT121	
AUT226	Automotive Drivetrain II	3	AUT121	
AUT227	Computerized Vehicle Control	3	AUT125	
	TOTAL CREDIT HOURS	**26**		

1718 Catalog Effective Summer 2017	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	4	AUT121
		6	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
		8	
Third Semester			
AUT223	Advanced Automotive Electronics	3	AUT125
AUT225	Automotive Drivetrain I	3	AUT121
AUT226	Automotive Drivetrain II	3	AUT121
AUT227	Computerized Vehicle Control	3	AUT125
		12	
	TOTAL CREDITS	**26**	

CAREER ENHANCEMENT CERTIFICATE

CAT LIFT TRUCK

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.

1718 Catalog
Effective Summer 2017

2263

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	Intro 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**		

1718 Catalog Effective Summer 2017	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	4	AUT121
		10	
Second Semester			
AUT181	Intro 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
		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	1	AUT121
		6	
Fourth Semester			
AUT281	CAT Differentials and Front Axles	1	AUT121
AUT282	CAT Transmissions	2	AUT121
AUT283	CAT Fuel Systems (LP, Gasoline)	2	AUT123
		5	
	TOTAL CREDITS	**27**	

CAREER ENHANCEMENT CERTIFICATE

HONDA PACT

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.

1718 Catalog
Effective Summer 2017

2264

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**		

1718 Catalog Effective Summer 2017	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 Circuits and Accessory Systems	4	AUT121
AUT171	Introduction to Honda PACT	1	AUT121
AUT172	Honda Engine Mechanical	2	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	1	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	1	AUT121
		5	
	TOTAL CREDITS	**29**	

CAREER ENHANCEMENT CERTIFICATE

TOYOTA T-TEN

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.

1718 Catalog
Effective Summer 2017

2265

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	Vehicle Chassis Systems	2	AUT124	
AUT142	Auto Electrical Systems Toyota	2	AUT125	
AUT143	Auto HVAC Systems Toyota 750	1	AUT126	
AUT251	Automotive Drivetrain I	1	AUT121	
AUT252	Automotive Drivetrain II	1	AUT121	
AUT253	Computerized Vehicle Controls	2	AUT222	
	TOTAL CREDIT HOURS	**27**		

1718 Catalog Effective Summer 2017	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	4	AUT121
		10	
Second Semester			
AUT126	Automotive HVAC Systems	2	AUT121
AUT142	Auto Electrical Systems Toyota	2	AUT125
AUT221	Fuel and Emissions Management Systems	3	AUT125
AUT222	Engine Systems Performance Diagnosis	3	AUT125
		10	
Third Semester			
AUT141	Vehicle Chassis Systems	2	AUT124
AUT143	Auto HVAC Systems Toyota 750	1	AUT126
AUT251	Automotive Drivetrain I	1	AUT121
AUT252	Automotive Drivetrain II	1	AUT121
AUT253	Computerized Vehicle Controls	2	AUT222
		7	
	TOTAL CREDITS	**27**	

CAREER ENHANCEMENT CERTIFICATE

TOYOTA T-TEN - ELECTRICAL, MANUAL TRANSMISSION, HVAC

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.

1718 Catalog
Effective Summer 2017

2266

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**		

1718 Catalog Effective Summer 2017	**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	5	TOY101
		8	
Second Semester			
TOY201	Toyota Electrical Systems II	5	TOY102
		5	
Third Semester			
TOY106	Toyota Manual Transmissions and Drivetrains	5	TOY102
		5	
Fourth Semester			
TOY203	Toyota HVAC Systems	5	TOY201
AUT193	Automotive CO-OP 3	2	
		7	
Fifth Semester			
AUT194	Automotive CO-OP 4	2	
		2	
	TOTAL CREDITS	**27**	

	CAREER ENHANCEMENT CERTIFICATE TOYOTA T-TEN – ENGINE REPAIR, ENGINE CONTROL, AUTOMATIC TRANSMISSION *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.*	**1718 Catalog** Effective Summer 2017 **2267**

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**		

1718 Catalog Effective Summer 2017	**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	5	TOY101
		8	
Second Semester			
TOY104	Toyota Engine Diagnosis and Repair	5	TOY101
		5	
Third Semester			
TOY105	Toyota Engine Controls I	5	TOY104
		5	
Fourth Semester			
TOY204	Toyota Engine Controls II	5	TOY105
TOY205	Toyota Automatic Transmissions	5	TOY204
		10	
	TOTAL CREDITS	**28**	

	CAREER ENHANCEMENT CERTIFICATE TOYOTA T-TEN – ELECTRICAL, BRAKES, STEERING AND SUSPENSION *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.*	**1718 Catalog** Effective Summer 2017 **2268**

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**		

1718 Catalog Effective Summer 2017	**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	2	
		15	
Second Semester			
TOY201	Toyota Electrical Systems II	5	TOY102
TOY202	Toyota Automotive Braking Systems	5	TOY201
AUT192	Automotive CO-OP 2	2	
		12	
	TOTAL CREDITS	**27**	

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – QUALITY ASSURANCE 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. 3357:15-13-06.

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4002

Engineering Technologies Division *Industrial Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST131	Statistical Process Control Charts^	2	(MTH093 and MTH094) **or** Proficiency	
IET270	Dimensional Metrology and Inspection I^	3	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
	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.

First Semester		Credit Hours	Pre- and Co-requisites
MST131	Statistical Process Control Charts^	2	(MTH093 and MTH094) **or** Proficiency
IET270	Dimensional Metrology and Inspection I^	3	[(MTH093 and MTH094) or Proficiency] **or** MTH107
	TOTAL CREDITS	**5**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

DESIGN ENGINEERING TECHNOLOGY – 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. 3357:15-13-06.

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4003

Engineering Technologies Division *Engineering Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DET125	Basic AutoCAD	3		
DET132	SolidWorks	3	DET125	
DET126	Customizing AutoCAD	3	DET125	
DET131	Pro/ENGINEER (Creo Parametric)	3	DET125	
DET230	Advanced AutoCAD (Inventor)	3	DET125	
	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
DET125	Basic AutoCAD	3	
		3	
Second Semester			
DET132	SolidWorks	3	DET125
DET126	Customizing AutoCAD	3	DET125
DET131	Pro/ENGINEER (Creo Parametric)	3	DET125
DET230	Advanced AutoCAD (Inventor)	3	DET125
		12	
	TOTAL CREDITS	**15**	

CAREER ENHANCEMENT CERTIFICATE

DESIGN ENGINEERING TECHNOLOGY - AUTOCAD

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.

1718 Catalog
Effective Summer 2017

4004

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	Advanced AutoCAD (Inventor)	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	3	
		3	
Second Semester			
DET126	Customizing AutoCAD	3	DET125
DET230	Advanced AutoCAD (Inventor)	3	DET125
		6	
	TOTAL CREDITS	**9**	

	CAREER ENHANCEMENT CERTIFICATE DESIGN ENGINEERING TECHNOLOGY – PRECISION GAUGING AND INSPECTION *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.*	**1718 Catalog** Effective Summer 2016 **4005**

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^	3	[(MTH093 and MTH094) 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.

		Credit Hours	Pre- and Co-requisites
First Semester			
DET121	Engineering Drawing	3	
IET270	Dimensional Metrology and Inspection I^	3	[(MTH093 and MTH094) or Proficiency] **or** MTH107
		6	
Second Semester			
DET124	Working Drawings	3	DET121 **and** Co-DET125
DET125	Basic AutoCAD	3	
		6	
Third Semester			
DET226	Geometric Dimensioning and Tolerancing	2	DET124
		2	
	TOTAL CREDITS	**14**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

MECHANICAL ENGINEERING TECHNOLOGY – FUEL CELL

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.

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4055

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		Credit Hours	Pre- and Co-requisites
MET229	Introduction to Alternative and Renewable Energy/Fuel Cells	**3**	
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**	

CAREER ENHANCEMENT CERTIFICATE

MECHANICAL ENGINEERING TECHNOLOGY – MACHINE DESIGN

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.

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4056

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	4	MET124
	TOTAL CREDITS	**8**	

CAREER ENHANCEMENT CERTIFICATE

MECHANICAL ENGINEERING TECHNOLOGY – MECHANICAL POWER

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4057

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.

Engineering Technologies Division *Engineering Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) 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.

First Semester		Credit Hours	Pre- and Co-requisites
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
MET222	Fluid Power	4	MET124
MET228	Machine Design	4	MET124
	TOTAL CREDITS	**12**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

CIVIL ENGINEERING TECHNOLOGY – ARCHITECTURAL DRAFTING

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.

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4206

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		
CET122	Architectural Drafting I	3		
CET123	Architectural Drafting II	3	Co-CET121 **and** CET122	
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 **and** CET122 **and** DET125	
DET125	Basic AutoCAD	3		
	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
CET122	Architectural Drafting I	3	
DET125	Basic AutoCAD	3	
		6	
Second Semester			
CET121	Building Materials and Construction Methods	3	
CET123	Architectural Drafting II	3	Co-CET121 and CET122
		6	
Third Semester			
CET234	Architectural CAD (REVIT 3D – BIM)	3	CET121 **and** CET122 **and** DET125
		3	
	TOTAL CREDITS	**15**	

CAREER ENHANCEMENT CERTIFICATE

CIVIL ENGINEERING TECHNOLOGY – CIVIL/SURVEYING

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.

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4207

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.

First Semester		Credit Hours	Pre- and Co-requisites
CET227	Surveying I	3	MTH125 **or** MTH135
		3	
Second Semester			
CET228	Surveying II	3	CET227
CET236	Global Positioning System	3	CET227
		6	
	TOTAL CREDITS	**9**	

CAREER ENHANCEMENT CERTIFICATE

CIVIL ENGINEERING TECHNOLOGY – CIVIL/SURVEYING DRAFTING

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.

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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	3	
	TOTAL CREDITS	**9**	

CAREER ENHANCEMENT CERTIFICATE

CIVIL ENGINEERING TECHNOLOGY – CONSTRUCTION MATERIALS INSPECTION

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.

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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.

First Semester		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	3	(MTH125 or MTH135) **and** CET121
		6	
	TOTAL CREDITS	**9**	

CAREER ENHANCEMENT CERTIFICATE

CIVIL ENGINEERING TECHNOLOGY – CONSTRUCTION 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. 3357:15-13-06.

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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		
CET235	Construction Management, Job Cost and Safety	3	CET121 **and** ITD122	
CET237	Interpreting Construction Documents	3		
DET125	Basic AutoCAD	3		
ITD122	Computer Applications for Professionals^	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
CET121	Building Materials and Construction Methods	3	
CET237	Interpreting Construction Documents	3	
DET125	Basic AutoCAD	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		12	
Second Semester			
CET235	Construction Management, Job Cost and Safety	3	CET121 **and** ITD122
		3	
	TOTAL CREDITS	**15**	

^Based on SSC placement scores

	CAREER ENHANCEMENT CERTIFICATE INDUSTRIAL TECHNOLOGY – CAD/CAM SPECIALIST (COMPUTER-AIDED DRAFTING/COMPUTER-AIDED MACHINING) *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.*	**1718 Catalog** Effective Summer 2017 **4316**

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	4	
		8	
Second Semester			
AIT137	CAD/CAM	4	AIT122 **and** IET223
		4	
Third Semester			
AIT225	Advanced CAD/CAM	4	AIT137
		4	
	TOTAL CREDITS	**16**	

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – INDUSTRIAL HYDRAULICS AND PNEUMATICS

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.

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Engineering Technologies Division *Industrial Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST125	Basic Pumps	3		
MST126	Pipefitting Principles and Applications	3		
MST135	Plumbing and Pipe Code Principles	3		
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **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
MST125	Basic Pumps	3	
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
		9	
Second Semester			
MST126	Pipefitting Principles and Applications	3	
MST135	Plumbing and Pipe Code Principles	3	
		6	
	TOTAL CREDITS	**15**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – MECHANICAL DRIVE SYSTEMS

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.

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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	(MTH091 and MTH092) **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	(MTH091 and MTH092) **or** Proficiency
MST221	Mechanical Drive Components	3	
	TOTAL CREDITS	**14**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – PRECISION MACHINING AND CNC 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. 3357:15-13-06.

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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	4	
		8	
Second Semester			
AIT123	Advanced Machine Tools	4	AIT122
		4	
	TOTAL CREDITS	**12**	

	CAREER ENHANCEMENT CERTIFICATE INDUSTRIAL TECHNOLOGY – WELDING TECHNOLOGY AWS* CERTIFICATION EXAM PREPARATION *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.*	**1718 Catalog** Effective Summer 2017 **4320**

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 Laboratory♦	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.

*AWS stands for *American Welding Society*

♦AWS testing available at applicable course completion

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – 3G WELDING CERTIFICATION EXAM PREPARATION

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.

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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 Laboratory	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 Laboratory	3	Co-MST127
		6	
Second Semester			
MST136	3G Welding Certification Exam Preparatory#♦	2	MST127 **and** MST128
		2	
	TOTAL CREDITS	**8**	

#Prerequisite of satisfactory welding required prior to course enrollment
♦AWS testing available at applicable course completion

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – 6G WELDING CERTIFICATION EXAM PREPARATION

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.

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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 Laboratory	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.

First Semester		Credit Hours	Pre- and Co-requisites
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Laboratory	3	Co-MST127
		6	
Second Semester			
MST137	6G Welding Certification Exam Preparatory#♦	5	MST127 **and** MST128
		5	
	TOTAL CREDITS	**11**	

#Prerequisite of satisfactory welding required prior to course enrollment
♦AWS testing available at applicable course completion

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – TITANIUM/STAINLESS STEEL WELDING

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.

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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 ♦	3	MST138
	TOTAL CREDITS	**8**	

#Prerequisite of satisfactory welding required prior to course enrollment
♦AWS testing available at applicable course completion

	CAREER ENHANCEMENT CERTIFICATE NATURAL GAS AND OIL TECHNOLOGY SHALENET C1 *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.*	**1718 Catalog** Effective Summer 2017 **4327**

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	EST230 **and** (CHM101 or ARL234)	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
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	**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
ARL234	Gas Compression and Flow Dynamics	3	
PET132	Petroleum Instrumentation	3	EST230 **and** (CHM101 or ARL234)
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
MST221	Mechanical Drive Components	3	
PET101	Introduction to the Petroleum Industry	3	
PET102	Introduction to Supervisory Control and Data Acquisition SCADA	2	
	TOTAL CREDITS	**18**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

PETROLEUM BASIC INDUSTRIAL MAINTENANCE CORE

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.

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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	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
MST121	Blueprint Reading	2		
MST125	Basic Pumps	3		
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **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.

First Semester		Credit Hours	Pre- and Co-requisites
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
AIT124	Principles of Rigging	2	
MST125	Basic Pumps	3	
MST221	Mechanical Drive Components	3	
		12	
Second Semester			
AIT134	Preventive and Predictive Maintenance	3	MST125 **and** MST221
MST121	Blueprint Reading	2	
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
		11	
	TOTAL CREDITS	**23**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

PETROLEUM BASIC INDUSTRIAL PROCESS CONTROLS

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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. 3357:15-13-06.

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 **or** EST230	
EET228	PLCs and Industrial Controls II	3	EET227	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) 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	[(MTH093 and MTH094) or Proficiency] **or** MTH107
PET102	Introduction to Supervisory Control and Data Acquisition (SCADA)	2	
		9	
Second Semester			
EET228	PLCs and Industrial Controls II	3	EET227
		3	
	TOTAL CREDITS	**12**	

^Based on SSC placement scores

	CAREER ENHANCEMENT CERTIFICATE OIL AND GAS TECHNOLOGY – PETROLEUM BASIC INDUSTRIAL PROCESS OPERATION CORE *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.*	**1718 Catalog** Effective Summer 2017 **4330**

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	(MTH091 and MTH092) **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.

First Semester		Credit Hours	Pre- and Co-requisites
MST121	Blueprint Reading	2	
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
MST221	Mechanical Drive Components	3	
	TOTAL CREDITS	**11**	

^Based on SSC placement scores

	CAREER ENHANCEMENT CERTIFICATE OIL AND GAS TECHNOLOGY – RIGGING OIL 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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2017 **4331**

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.

First Semester		Credit Hours	Pre- and Co-requisites
AIT124	Principles of Rigging	2	
ENV221	OSHA 40-Hour HAZWOPER	2	
MST121	Blueprint Reading	2	
	TOTAL CREDITS	**6**	

CAREER ENHANCEMENT CERTIFICATE

ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY – SAFETY – HEAVY 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. 3357:15-13-06.

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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	2	
		9	
Second Semester			
ENV228	Health and Safety	3	ENV121
		3	
	TOTAL CREDITS	**12**	

CAREER ENHANCEMENT CERTIFICATE

OIL AND GAS TECHNOLOGY – WELDING TECHNOLOGY FOR GAS & OIL PRODUCTION

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.

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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	3	Co-MST127
		11	
Second Semester			
MST136	3G Welding Certification Exam Preparatory #♦	2	MST127 **and** MST128
MST137	6G Welding Certification Exam Preparatory #♦	5	MST127 **and** MST128
		7	
	TOTAL CREDITS	**18**	

#Prerequisite of satisfactory welding required prior to course enrollment.
♦AWS testing available at applicable course completion.

CAREER ENHANCEMENT CERTIFICATE

OIL AND GAS TECHNOLOGY – LEASE OPERATOR

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.

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4334

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	EST230 **and** (CHM101 or ARL234)	
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	EST230 **and** (CHM101 or ARL234)
PET141	Production Operations	3	
PET142	Artificial Lift	3	
	TOTAL CREDITS	**12**	

CAREER ENHANCEMENT CERTIFICATE

SHALENET INSTRUMENTATION AND MEASUREMENT 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. 3357:15-13-06.

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4336

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		
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		
PET230	Petroleum Measurement Capstone	3	PET102, PET131, PET135, Pre-Co-PET141, and Pre-Co- PET210	
	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
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	3	
		11	
Second Semester			
PET141	Production Operations	3	
PET210	Petroleum Process Controls	3	
PET230	Petroleum Measurement Capstone	3	PET102, PET131, PET135, Pre-Co-PET141, and Pre-Co-PET210
		9	
	TOTAL CREDITS	**20**	

CAREER ENHANCEMENT CERTIFICATE

3-D PRINTING

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.

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Engineering Technologies Division *Industrial Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AIT140	3-D Printing	3		
AIT227	Advanced 3-D Printing	3	AIT140	
	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.

First Semester		Credit Hours	Pre- and Co-requisites
AIT140	3-D Printing	3	
Second Semester			
AIT227	Advanced 3-D Printing	3	AIT140
	TOTAL CREDITS	**6**	

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – BASIC INDUSTRIAL MAINTENANCE

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.

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4407

Engineering Technologies Division *Industrial Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency	
EST230	Electrical Circuits & Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
MST121	Blueprint Reading	2		
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **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
MTH107	Industrial Math^	3	(MTH091 and MTH092) **or** Proficiency
EST230	Electrical Circuits & Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
MST121	Blueprint Reading	2	
MST134	Hydraulic and Pneumatic Systems^	6	(MTH091 and MTH092) **or** Proficiency
	TOTAL CREDITS	**15**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY – ELECTRICAL/ELECTRONIC TROUBLESHOOTING

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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. 3357:15-13-06.

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	(MTH093 and MTH094) **or** Proficiency	
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** 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	
	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
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** Pre-Co-MTH135
		9	
Second Semester			
EET122	AC Circuit Analysis	4	(Pre-Co-MTH130 or Pre-Co-MTH135) **and** EET120
EET123	Electronic Devices & Circuits	4	EET120 **and** Pre-Co-EET122
		8	
	TOTAL CREDITS	**17**	

^Based on SSC placement scores

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. 3357:15-13-06.

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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 **or** 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 **or** 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	4	Pre-Co-MTH125 **or** Pre-Co-MTH135
		4	
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	EET120 **or** EST230
		11	
Third Semester			
EET228	PLCs and Industrial Controls II	3	EET227
		3	
	TOTAL CREDITS	**18**	

CAREER ENHANCEMENT CERTIFICATE

ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY – INDUSTRIAL ELECTRICITY AND ELECTRONICS

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.

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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	(MTH093 and MTH094) **or** Proficiency	
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** 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	
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^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
EET120	DC Circuit Analysis	4	Pre-Co-MTH125 **or** 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	
Third Semester			
EET232	Industrial Electronics	4	EET123
EET128	NEC and Electrical Systems Design	2	EET122
		6	
	TOTAL CREDITS	**23**	

^Based on SSC placement scores

	CAREER ENHANCEMENT CERTIFICATE ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY – BASICS OF SUSTAINABLE/ALTERNATIVE ENERGY TECHNOLOGIES (Solar, Wind, Fuel, Biomass) *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.*	**1718 Catalog** Effective Summer 2017 **4452**

Engineering Technologies Division *Industrial Technology Department*

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	[(MTH093 and MTH094) or Proficiency] **or** MTH107	
MTH125	College Algebra^	4	(MTH093 and MTH094) **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
AET121	Sustainable/Alternative Energy Sources	3	
EST230	Electrical Circuits and Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
		11	
Second Semester			
AET122	Analysis/Applications of Sustainable Alternative Energy	3	AET121
		3	
	TOTAL CREDITS	**14**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY – ENVIRONMENTAL REMEDIATION TECHNICIAN

1718 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. 3357:15-13-06.

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	ENG011 **or** Proficiency	
ELECTIVE: Select one (1) course below.				
PHL122	Ethics	3		
PSY121	General Psychology^	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^	3	ENG011 **or** Proficiency
		11	
Second Semester			
ENV169	Radiation Safety	2	
ENV221	OSHA 40-Hour HAZWOPER	2	
ENV228	Health and Safety	3	ENV121
Elective[1]		3	*Check for prerequisites*
		10	
	TOTAL CREDITS	**21**	

^Based on SSC placement scores
[1]Electives: PHL122, PSY121, SOC121

CAREER ENHANCEMENT CERTIFICATE

ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY – OSHA 40-HOUR HAZWOPER

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.

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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.

First Semester		Credit Hours	Pre- and Co-requisites
ENV121	Regulations and Compliance	3	
ENV221	OSHA 40-Hour HAZWOPER	2	
	TOTAL CREDITS	**5**	

CAREER ENHANCEMENT CERTIFICATE

OIL AND GAS TECHNOLOGY – COMMERCIAL DRIVER'S LICENSE (CDL)

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.

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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 **and** Co-CDL123	
CDL122	Commercial Driver's License Class A – Advanced Operations and Maintenance	6	Co-CDL121 **and** Co-CDL123	
CDL123	Commercial Driver's License - Class A – Behind the Wheel Street	1	Co-CDL121 **and** Co-CDL122	
	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
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	Commercial Driver's License - Class A – Behind the Wheel Street	1	Co-CDL121 **and** Co-CDL122
	TOTAL CREDITS	**12**	

*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.

	CAREER ENHANCEMENT CERTIFICATE ENVIRONMENTAL HEALTH AND SAFETY – DEPARTMENT OF TRANSPORTATION (DOT) SAFETY CERTIFICATE *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.*	**1718 Catalog** Effective Summer 2017 **4461**

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.

First Semester		Credit Hours	Pre- and Co-requisites
ENV121	Regulations and Compliance	3	
ENV124	Transportation Hazardous Materials Training	1	
	TOTAL CREDITS	**4**	

	CAREER ENHANCEMENT CERTIFICATE HEATING, VENTILATION, AIR CONDITIONING, & REFRIGERATION TECHNOLOGY – COMMERCIAL REFRIGERATION *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.*	**1718 Catalog** Effective Summer 2017 **4502**

Engineering Technologies Division *Industrial Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HVC234	HVAC Electrical Systems and Applications^	3	Pre-Co- HVC121 **and** [(MTH091 and MTH092) or Proficiency]	
HVC235	Refrigeration	3	HVC122	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
	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
HVC234	HVAC Electrical Systems and Applications^	3	Pre-Co- HVC121 **and** [(MTH091 and MTH092) or Proficiency]
HVC235	Refrigeration	3	HVC122
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
	TOTAL CREDITS	**10**	

^Based on SSC placement scores

	CAREER ENHANCEMENT CERTIFICATE HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY – HVACR DESIGN AND APPLICATION 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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2017 **4503**

Engineering Technologies Division *Industrial Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET121	Building Materials and Construction Methods	3		
HVC222	HVAC Design and Application	3	HVC122	
HVC232	Advanced HVAC Applications	3	HVC222 **and** HVC227	
HVC235	Refrigeration	3	HVC122	
	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
CET121	Building Materials and Construction Methods	3	
HVC222	HVAC Design and Application	3	HVC122
HVC235	Refrigeration	3	HVC122
		9	
Second Semester			
HVC232	Advanced HVAC Applications	3	HVC222 **and** HVC227
		3	
	TOTAL CREDITS	**12**	

CAREER ENHANCEMENT CERTIFICATE

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION TECHNOLOGY - HVACR ELECTRICAL SYSTEMS

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.

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Engineering Technologies Division *Industrial Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HVC234	HVAC Electrical Systems and Applications^	3	Pre-Co-HVC121 **and** [(MTH091 and MTH092) or Proficiency]	
HVC236	Advanced HVAC Electrical Applications	3	HVC234	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
	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
HVC234	HVAC Electrical Systems and Applications^	3	Pre-Co-HVC121 **and** [(MTH091 and MTH092) or Proficiency]
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
		7	
Second Semester			
HVC236	Advanced HVAC Electrical Applications	3	HVC234
		3	
	TOTAL CREDITS	**10**	

^Based on SSC placement scores

	CAREER ENHANCEMENT CERTIFICATE HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY – HVACR TECHNICIAN (LEVEL 1) *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.*	**1718 Catalog** Effective Summer 2017 **4505**

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	Pre-Co-HVC121 **and** [(MTH091 and MTH092) or Proficiency]	
	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^	3	Pre-Co-HVC121 **and** [(MTH091 and MTH092) or Proficiency]
	TOTAL CREDITS	**13**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

HEATING VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY – HVACR TECHNICIAN (LEVEL II)

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.

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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	3	
		8	
Second Semester			
HVC223	HVAC System Operation and Troubleshooting – Heating	3	HVC122
HVC224	HVAC System Operation and Troubleshooting – Cooling	3	HVC122
		6	
	TOTAL CREDITS	**14**	

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – BASIC ROBOTICS

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.

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4553

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 & Devices^	4	[(MTH093 and MTH094) 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.

First Semester		Credit Hours	Pre- and Co-requisites
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
EST230	Electrical Circuits & Devices^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH107
AIT139	Introduction to Robotics	2	
MST221	Mechanical Drive Components	3	
	TOTAL CREDITS	**12**	

^Based on SSC placement scores

CAREER ENHANCEMENT CERTIFICATE

INDUSTRIAL TECHNOLOGY – AUTOMATION AND ROBOTICS 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

4554

Engineering Technologies Division *Industrial 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	(MTH093 and MTH094) **or** Proficiency	
EET120	DC Circuit Analysis	4	Pre-Co-MTH135 **or** Pre-Co-MTH125	
AIT139	Introduction to Robotics	2		
AIT220	Industrial Robotics*	4	AIT139	
	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
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
EET120	DC Circuit Analysis	4	Pre-Co-MTH135 **or** Pre-Co-MTH125
AIT139	Introduction to Robotics	2	
		11	
Second Semester			
AIT220	Industrial Robotics*	4	AIT139
		4	
	TOTAL CREDITS	**15**	

^Based on SSC placement scores.

*FANUC Automation and Robotics certification will be awarded after successfully completing AIT220.

CAREER ENHANCEMENT CERTIFICATE

ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY – GREEN TECHNOLOGY ESSENTIALS

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.

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Effective Summer 2017

4567

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.

First Semester		Credit Hours	Pre- and Co-requisites
BIO126	Science, Energy and the Environment	4	
ENV164	Sustainable Green Building Technology	3	
	TOTAL CREDITS	**7**	

	CAREER ENHANCEMENT CERTIFICATE ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY – BASIC ENVIRONMENTAL 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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2017 **4602**

Engineering Technologies Division *Industrial Technology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENV123	OSHA 10-Hour General Industry Safety	1		
ENV124	Transportation Hazardous Materials Training	1		
ENV169	Radiation Safety	2		
ENV221	OSHA 40-Hour HAZWOPER	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.

First Semester		Credit Hours	Pre- and Co-requisites
ENV123	OSHA 10-Hour General Industry Safety	1	
ENV124	Transportation Hazardous Materials Training	1	
ENV169	Radiation Safety	2	
ENV221	OSHA 40-Hour HAZWOPER	2	
	TOTAL CREDITS	**6**	

	CAREER ENHANCEMENT CERTIFICATE ENVIRONMENTAL, HEALTH AND SAFETY TECHNOLOGY – ENVIRONMENTAL TECHNICIAN SUPERVISOR *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.*	**1718 Catalog** Effective Summer 2017 **4607**

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	2	
	TOTAL CREDITS	**10**	

HEALTH AND PUBLIC SERVICES

Stark State COLLEGE

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

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.

1718 Catalog
Effective Summer 2017

1000

Health and Public Services Division *Human Services and Justice Studies Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
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	
SWK127	Group Processes++	3		
GER121	Introduction to Gerontology	3		
SWK224	Poverty in the U.S.++	3	SWK121 **and** ENG124	
SWK225	Victimization and Crisis Intervention	3	ENG124	
SWK231	Human and Social Services Practicum and Seminar++	3	SWK224 **and** SWK130	
	Total	**30**		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	*Take first semester*	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
BUS122	Basic Economics ^	3	IDS102 **or** Proficiency	
PSC121	Political Science	3		
SOC225	Cultural Diversity++	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
COM121	Effective Speaking	3		
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^Ω	3	*Check for prerequisites*	
BIO127	Human Biology	4		
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
Ω MTH124 should only be taken by students planning to transfer to a four-year institution.

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.

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^	3	ENG011 **or** Proficiency
SOC121	Sociology^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		16	
Second Semester			
SWK124	Methods in Practice I++	3	SWK121
SWK224	Poverty in the U.S.++	3	SWK121 **and** ENG124
PSY121	General Psychology^	3	IDS102 **or** Proficiency
SOC225	Cultural Diversity++	3	
BIO127	Human Biology	4	
		16	
Third Semester			
SWK130	Methods in Practice II++	3	SWK124
SWK126	Human Behavior in the Social Environment++^	3	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^		
or	**or**	3	*Check for prerequisites*
MTH124	Statistics^Ω		
SWK125	Substance Abuse^	3	IDS102 **or** Proficiency
SWK225	Victimization and Crisis Intervention	3	ENG124
		15	
Fourth Semester			
PSC121	Political Science	3	
BUS122	Basic Economics^	3	IDS102 **or** Proficiency
SWK231	Human and Social Services Practicum and Seminar++	3	SWK224 **and** SWK130
GER121	Introduction to Gerontology	3	
SWK127	Group Processes++	3	
		15	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores.

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

++Minimum grade of "C" required.

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

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ASSOCIATE OF APPLIED SCIENCE

HUMAN AND SOCIAL SERVICES – GERONTOLOGY 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: 15-13-06.

1718 Catalog
Effective Summer 2017

1003

Health and Public Services Division *Human Services and Justice Studies Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
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	
GER121	Introduction to Gerontology	3		
SWK224	Poverty in the U.S.++	3	SWK121 **and** ENG124	
SWK231	Human and Social Services Practicum and Seminar++	3	SWK224 **and** SWK130	
SWK230	Social Services for the Elderly++	3	ENG124	
GER122	Psychosocial Aspects of Aging++	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*	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSC121	Political Science	3		
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity++	3		
ENG124	College Composition ^	3	ENG011 **or** Proficiency	
COM121	Effective Speaking	3		
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^Ω	3 **or** 3	*Check for prerequisites*	
BIO127	Human Biology	4		
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
Ω MTH124 should only be taken by students planning to transfer to a four-year institution.

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.

1718 Catalog Effective Summer 2017	HUMAN AND SOCIAL SERVICES – GERONTOLOGY MAJOR	1003

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^	3	ENG011 **or** Proficiency
SOC121	Sociology^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
GER121	Introduction to Gerontology	3	
		16	
Second Semester			
SWK124	Methods in Practice I++	3	SWK121
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
SWK224	Poverty in the U.S.++	3	SWK121 **and** ENG124
PSY121	General Psychology^	3	IDS102 **or** Proficiency
BIO127	Human Biology	4	
		16	
Third Semester			
SWK130	Methods in Practice II++	3	SWK124
SWK126	Human Behavior in the Social Environment++^	3	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	
or	**or**	**or**	*Check for prerequisites*
MTH124	Statistics^Ω	3	
SWK125	Substance Abuse^	3	IDS102 **or** Proficiency
SOC225	Cultural Diversity++	3	
		15	
Fourth Semester			
PSC121	Political Science	3	
BUS122	Basic Economics^	3	IDS102 **or** Proficiency
SWK231	Human and Social Services Practicum and Seminar ++	3	SWK224 **and** SWK130
GER122	Psychosocial Aspects of Aging++	3	
SWK230	Social Services for the Elderly++	3	ENG124
		15	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores.

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

++Minimum grade of "C" required.

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

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.

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: 15-13-06.

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Effective Summer 2017

1004

Health and Public Services Division *Human Services and Justice Studies Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SWK121	Introduction to Social Welfare++^	3	IDS102 **or** Proficiency	
CDC121	Chemical Dependency: Assessment and Treatment Planning++	3	SWK121 **and** SWK125	
CDC122	Fundamentals of Chemical Dependency Practice I++	3	SWK125	
CDC222	Fundamentals of Chemical Dependency Practice II++	3	CDC122	
SWK125	Substance Abuse++^	3	IDS102 **or** Proficiency	
SWK126	Human Behavior in the Social Environment++^	3	IDS102 **or** Proficiency	
CDC221	Chemical Dependency and the Family++	3	SWK125	
SWK224	Poverty in the U.S.++	3	SWK121 **and** ENG124	
SWK225	Victimization and Crisis Intervention	3	ENG124	
CDC231	Chemical Dependency Practicum and Seminar++	3	SWK224 **and** CDC222	
CDC223	Chemical Dependency and Prevention++	1	SWK125	
CDC224	Chemical Dependency and Ethics++	1	SWK125	
	Total	**32**		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	*Take first semester*	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSC121	Political Science	3		
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity++	3		
ENG124	College Composition ^	3	ENG011 **or** Proficiency	
COM121	Effective Speaking	3		
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^Ω	3	*Check for prerequisites*	
BIO127	Human Biology	4		
	Total	**32**		
	TOTAL CREDIT HOURS	**64**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
Ω MTH124 should only be taken by students planning to transfer to a four-year institution.

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.

1718 Catalog Effective Summer 2017	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		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^	3	ENG011 **or** Proficiency
SOC121	Sociology^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
SWK125	Substance Abuse++^	3	IDS102 **or** Proficiency
		16	
Second Semester			
CDC121	Chemical Dependency: Assessment and Treatment Planning++	3	SWK121 **and** SWK125
SWK224	Poverty in the U.S.++	3	SWK121 **and** ENG124
PSY121	General Psychology^	3	IDS102 **or** Proficiency
CDC122	Fundamentals of Chemical Dependency Practice I++	3	SWK125
CDC223	Chemical Dependency and Prevention++	1	SWK125
CDC224	Chemical Dependency and Ethics++	1	SWK125
PSC121	Political Science	3	
		17	
Third Semester			
CDC222	Fundamentals of Chemical Dependency Practice II++	3	CDC122
SWK126	Human Behavior in the Social Environment++^	3	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^		
or	**or**	3	*Check for prerequisites*
MTH124	Statistics^Ω		
CDC221	Chemical Dependency and Family++	3	SWK125
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
SWK225	Victimization and Crisis Intervention	3	ENG124
		18	
Fourth Semester			
BUS122	Basic Economics^	3	IDS102 **or** Proficiency
CDC231	Chemical Dependency Practicum and Seminar++	3	SWK224 **and** CDC222
SOC225	Cultural Diversity++	3	
BIO127	Human Biology	4	
		13	
	TOTAL CREDITS	**64**	

^Based on SSC placement scores.

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

++Minimum grade of "C" required.

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

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.

ASSOCIATE OF APPLIED SCIENCE

HUMAN AND SOCIAL SERVICES-COMMUNITY CORRECTIONS

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.

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Effective Summer 2017

1009

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	
CJS227	Criminal Justice Practicum and Seminar++	3	CJS221 **or** SWK130	
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	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^Ω	3	*Check for prerequisites*	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
SOC222 **or** PSY221	Juvenile Delinquency **or** Abnormal Psychology	3 **or** 3	SOC121 **or** PSY121	
SOC225	Cultural Diversity++	3		
	Total	**32**		
	TOTAL CREDIT HOURS	**65**		

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
Ω MTH124 should only be taken by students planning to transfer to a four-year institution.

1718 Catalog Effective Summer 2017	HUMAN AND SOCIAL SERVICES-COMMUNITY CORRECTIONS	1009

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^	3	ENG011 **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
SWK121	Introduction to Social Welfare++^	3	IDS102 **or** Proficiency
SWK125	Substance Abuse^	3	IDS102 **or** Proficiency
		16	
Second Semester			
CJS129	Corrections++	3	CJS121
CJS221	Criminology	3	CJS121
SOC121	Sociology^	3	IDS102 **or** Proficiency
ENG221	Technical Report Writing	3	ENG124
SWK124	Methods in Practice I++	3	SWK121
SWK126	Human Behavior and the Social Environment++^	3	IDS102 **or** Proficiency
		18	
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	3	ENG124
		15	
Fourth Semester			
BIO127	Human Biology	4	
CJS227	Criminal Justice Practicum & Seminar++	3	CJS221 **or** SWK130
MTH108	Explorations in Modern Mathematics^		
or	**or**	3	*Check for prerequisites*
MTH124	Statistics^Ω		
PSY121	General Psychology^	3	IDS102 **or** Proficiency
SOC225	Cultural Diversity++	3	
		16	
	TOTAL CREDITS	**65**	

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
Ω MTH124 should only be taken by students planning to transfer to a four-year institution.

ASSOCIATE OF APPLIED SCIENCE

POLICE SCIENCE

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.

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Effective Summer 2017

1300

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	
CJS227	Criminal Justice Practicum & Seminar	3	CJS221 **or** SWK130	
TECHNICAL ELECTIVES: ***3-4 credit hours minimum***				
ACC235	Forensic Accounting	3		
CFS137	Computer Crime and Investigation	3	NET120 **or** ECA145	
CFS257	File Systems Analysis	3	CFS137 **or** ECA137	
CHM205	Forensic Chemistry (lab)	4	CHM105 **or** CHM121 **or** CHM141	
CIS126	Fundamentals of Information Systems	3	IDS102 **or** Proficiency	
CJS124	Policing	3	CJS121	
HLS121	Introduction to Emergency Management	3		
HLS122	Intelligence and Homeland Security	3		
HLS123	Homeland Defense and Crisis Management	3		
HLS220	Weapons of Mass Destruction	3	HLS123	
HLS225	Intelligence Analysis	3		
JCR131	Legal Terminology	3		
SWK125	Substance Abuse^	3	IDS102 **or** Proficiency	
	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*	
ENG124	College Composition^	3	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[2] **(recommended)**	3	IDS102 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^[3] **(recommended)**	3	(MTH091 and MTH092) **or** Proficiency	
ITD122	Computer Applications for Professionals^[4] **(recommended)**	3	ITD100 **or** Proficiency	
	Total	**31**		
	TOTAL CREDIT HOURS	**64-65**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.
[2] Or select from one of the following choices: PSC121, PSY221, SOC121, SOC123, SOC221, SOC222
[3] Or select from one of the following choices: MTH124
[4] Or select from one of the following choices: NET120

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^	3	ENG011 **or** Proficiency
CJS121	Introduction to Criminal Justice	3	
PHL122	Ethics	3	
ITD122	Computer Applications for Professionals ^[4] ***(recommended)***	3	ITD100 **or** Proficiency
COM121	Effective Speaking	3	
CHM105	Introduction to Forensic Science (lab)	3	
		19	
Second Semester			
CJS140	Law Enforcement Academy I^++	12	IDS102 **or** Proficiency
ENG231	College Composition II	3	ENG124
		15	
Third Semester			
CJS240	Law Enforcement Academy II++	12	CJS140
CJS221	Criminology	3	CJS121
		15	
Fourth Semester			
CJS227	Criminal Justice Practicum & Seminar	3	CJS221 **or** SWK130
MTH108	Explorations in Modern Mathematics^ [3] **(recommended)**	3	(MTH091 and MTH092) **or** Proficiency
PSY121	General Psychology [2] **(recommended)**	3	IDS102 **or** Proficiency
SOC225	Cultural Diversity	3	
Technical Elective [1]		3-4	*Check for pre-requisites*
		15-16	
	TOTAL CREDITS	**64-65**	

^Based on SSC placement scores

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

++Minimum grade of "C" required.

[1] Technical Electives: ACC235, CFS137, CFS257, CHM205, CIS126, CJS124, HLS121, HLS122, HLS123, HLS220, HLS225, JCR131, SWK125

[2] Or select from one of the following choices: PSC121, PSY221, SOC121, SOC123, SOC221, SOC222

[3] Or select from one of the following choices: MTH124

[4] Or select from one of the following choices: NET120

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. Please send an email to LEAinfo@starkstate.edu for more information.

ONE-YEAR CERTIFICATE

POLICE SCIENCE

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.

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Effective Summer 2017

1302

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	ENG011 **or** Proficiency	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
	Total	**10**		
	TOTAL CREDIT HOURS	**40**		

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.

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.

1718 Catalog Effective Summer 2017	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	3	
		19	
Second Semester			
CJS240	Law Enforcement Academy II++	12	CJS140
ENG124	College Composition^	3	ENG011 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
CJS221	Criminology	3	CJS121
		21	
	TOTAL CREDITS	**40**	

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
++Minimum grade of "C" required.

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.

ASSOCIATE OF ARTS

CRIMINAL JUSTICE

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.

1718 Catalog
Effective Summer 2017

1301

Health and Public Services Division *Human Services and Justice Studies Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXPERIENCE				
SSC101	Student Success Seminar^^	1	*Take first semester*	
COMPUTER APPLICATIONS				
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
WRITTEN & ORAL COMMUNICATION: ***9 credit hours minimum***				
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		
COM123	Small Group Communication	3	IDS102 **or** Proficiency	
SOCIAL & BEHAVIORAL SCIENCES: ***12 credit hours minimum***				
SOC225	Cultural Diversity **(required)**	3		
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY122	Psychology of Adjustment	3	PSY121	
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 JUSTICE: ***18 credit hours required***				
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 & HUMANITIES: ***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	
HIS121	U.S. History I to 1877	3		
HIS122	U.S. History II from 1877	3		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester.

1718 Catalog Effective Summer 2017	CRIMINAL JUSTICE	1301

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HIS221	World Civilization to 17th Century	3		
HIS222	World Civilization from 17th Century	3		
SCIENCES & MATHEMATICS				
***Natural Sciences*: 6 semester 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		
CHM101	Introduction to Chemistry^⅄	4	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., and Biol. Chemistry I (lab)⅄	4	HS CHM2 **or** CHM101	
CHM122	Gen., Org., and Biol. Chemistry II (lab)	4	CHM121	
CHM205	Forensic Chemistry (lab)	4	CHM105 **or** CHM121 **or** CHM141	
PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **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 semester credit hours required**				
MTH124	Statistics^ **(required)**	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
ELECTIVES: ***3 credit hours minimum***				
ACC235	Forensic Accounting	3		
HLS121	Introduction to Emergency Management	3		
HLS122	Intelligence and Homeland Security	3		
HLS123	Homeland Defense and Crisis Management	3		
SWK125	Substance Abuse^	3	IDS102 **or** Proficiency	
SWK225	Victimization and Crisis Intervention	3	ENG124	
	TOTAL CREDIT HOURS	**61-63**		

^Based on SSC placement scores

⅄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.

1718 Catalog Effective Summer 2017	CRIMINAL JUSTICE	1301

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 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*
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
PHL122	Ethics	3	
CJS121	Introduction to Criminal Justice	3	
Social & Behavioral Sciences Elective [4]		3	*Check for prerequisites*
		16	
Second Semester			
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
Natural Sciences Elective ⅄ [2]		3-4	*Check for prerequisites*
Social & Behavioral Sciences Elective [4]		3	*Check for prerequisites*
CJS124	Policing	3	CJS121
CJS129	Corrections	3	CJS121
		15-16	
Third Semester			
Natural Sciences Elective ⅄ [2]		3-4	*Check for prerequisites*
Written & Oral Communication Elective [3]		3	*Check for prerequisites*
SOC225	Cultural Diversity	3	
CJS221	Criminology	3	CJS121
CJS222	Criminal Law in the United States	3	CJS121
		15-16	
Fourth Semester			
Arts & Humanities Elective [1]		3	*Check for prerequisites*
Written & Oral Communication Elective [3]		3	*Check for prerequisites*
Social & Behavioral Sciences Elective [4]		3	*Check for prerequisites*
Elective [5]		3	*Check for prerequisites*
CJS223	Criminal Procedure	3	CJS121
		15	
	TOTAL CREDITS	**61-63**	

^Based on SSC placement scores

^^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/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.

[1] Arts and Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222

[2] Natural Sciences Electives: BIO121, BIO122, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, CHM101, CHM105, CHM121, CHM122, CHM205, PHY101, PHY105, PHY121, PHY122

[3] Written & Oral Communication Electives: COM121, COM122, COM123, ENG221, ENG231,

[4] Social & Behavioral Sciences Electives: PSC121, PSY121, PSY122, PSY220, PSY221, SOC121, SOC123, SOC221, SOC222

[5] Electives: ACC235, HLS121, HLS122, HLS123, SWK125, SWK225

ASSOCIATE OF APPLIED SCIENCE

Government and Legal Studies

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.

1718 Catalog
Effective Summer 2017

1310

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	
GLS123	Government and Legal Ethics^	3	IDS102 **or** Proficiency	
GLS121	Introduction to Law and the Legal System^	3	IDS102 **or** Proficiency	
GLS227	Government and Legal Studies Practicum and Seminar	3	GLS123 **and** PSC221	
PSC221	State and Local Government	3	PSC121	
PSC222	Public Policy	3	GLS121 **and** 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	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 **or** MTH108	Statistics^ **or** Explorations in Modern Mathematics^	3	MTH093 **or** Proficiency **or** (MTH091 and MTH092) **or** Proficiency	
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based upon SSC placement scores.
^^To promote student success, this course should be taken in the first semester.

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	
GLS121	Introduction to Law and the Legal System^	3	IDS102 **or** Proficiency
PSC121	Political Science	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
SOC225	Cultural Diversity	3	
		16	
Second Semester			
AOT132	Records Management^	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
GLS123	Government and Legal Ethics^	3	IDS102 **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
		15	
Third Semester			
AOT226	Spreadsheet Microsoft Excel^	3	ITD100 **or** Proficiency
ENG230	Business Communication	3	ENG124
PSC222	Public Policy	3	GLS121 **and** PSC121
PSC221	State and Local Government	3	PSC121
MTH124	Statistics^	3	MTH093 **or** Proficiency
or	**or**	**or**	**or**
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		15	
Fourth Semester			
AOT235	Legal Research and Writing	3	
BIO126	Science, Energy, and the Environment	4	
COM123	Small Group Communication^	3	IDS102 **or** Proficiency
GLS227	Government and Legal Studies Practicum and Seminar	3	GLS123 **and** PSC221
PSY124	Industrial and Organizational Psychology	3	
		16	
	TOTAL CREDITS	**62**	

^Based upon SSC placement score.

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

ASSOCIATE OF APPLIED SCIENCE

HEALTH INFORMATION MANAGEMENT

(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: 15-13-06.

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Effective Summer 2017

3050

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** 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	HIT122 **and** 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	HIT124	
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	ENG011 **or** 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	
MTH105 **or** MTH124 **or** MTH125	Math for Allied Health^ Ω **or** Statistics ^ **or** College Algebra^	3 **or** 3 **or** 4	*Check for prerequisites*	
	Sociology or Psychology Elective^[1]	3	IDS102 **or** Proficiency	
	Total	**32-33**		
	TOTAL CREDIT HOURS	**62-63**		

^Based on SSC placement scores.
^^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.
#BIO121 and BIO122 can be substituted for BIO123.
ΩMTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.
*Students in the Health Information Management major are required to take HIT121. HIT230 is required for all other majors. Application criteria requires a "B" or better in BIO101 or HS BIO, and (MTH091 and MTH092) or proficiency to apply to the Health Information Management program.
▲+ Spring only courses. Please see your academic advisor for availability.
▲- Fall only courses. Please see your academic advisor for availability.
[1] Any Sociology or Psychology course.

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.

1718 Catalog Effective Summer 2017	HEALTH INFORMATION MANAGEMENT (Day Track)	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*
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
HIT121	Health Data Management and Delivery Systems▲-	4	Co-HIT123
HIT123	Health Care Legal and Ethical Issues*▲-	2	HIT230 **or** Co-HIT121
BIO123	Principles of Human Structure & Function (lab)⅄#	5	BIO101 **or** Proficiency
BIO125	Medical Terminology	3	
		18	
Second Semester			
HIT122	Alternative Health Records & Registries▲+	3	HIT121
HIT124	Clinical Classification Systems I▲+	4	HIT121 **and** Co-BIO124
BIO124	Human Diseases	3	BIO122 **or** BIO123
BIO222	Pharmacology	3	BIO122 **or** BIO123
		13	
Summer			
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH105	Math for Allied Health^ Ω	3	
or	**or**	**or**	
MTH124	Statistics^	3	*Check for prerequisites*
or	**or**	**or**	
MTH125	College Algebra^	4	
		6-7	
Third Semester			
HIT221	Clinical Classification Systems II▲-	3	HIT124 **and** BIO222
HIT222	Healthcare Statistics and Research▲-	3	HIT122 **and** HIT124 **and** Co-HIT224
HIT224	Quality Management in Healthcare▲-	2	Co-HIT222
HIT226	Professional Practice Experience I/Seminar I▲-	2	
HIT232	Health Care Reimbursement Methodologies▲-	2	HIT124
		12	
Fourth Semester			
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
HIT233	Clinical Classification Systems III▲+	2	HIT124
	*Sociology or Psychology Elective^*[1]	3	IDS102 **or** Proficiency
		13	
	TOTAL CREDITS	**62-63**	

^Based on SSC placement scores.

^^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.

#BIO121 and BIO122 can be substituted for BIO123.

ΩMTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

*Students in the Health Information Management major are required to take HIT121. HIT230 is required for all other majors. Application criteria requires a "B" or better in BIO101 or HS BIO, and (MTH091 and MTH092) or proficiency to apply to the Health Information Management program.

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

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

[1] Any Sociology or Psychology course.

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.

ONE-YEAR CERTIFICATE

MEDICAL CODING CERTIFICATE PROGRAM

(AFTERNOON/NIGHT 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: 15-13-06.

1718 Catalog

Effective Summer 2017

3055

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 **or** Co-HIT121	
HIT124	Clinical Classification System I▲+	4	HIT121 **and** 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	HIT124	
	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**		

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
#BIO121 and BIO122 may be substituted for BIO123
*Students in the Health Information Management major are required to take HIT121. HIT230 is required for all other majors.
**The coding professional practice experience is on campus in our virtual lab.
▲The summer semester courses are accelerated and the schedule is rigorous.
▲+ 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.

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.

1718 Catalog Effective Summer 2017	**ONE-YEAR CERTIFICATE** MEDICAL CODING CERTIFICATE PROGRAM AFTERNOON/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 Hours	Pre- and Co-requisites
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	3	
		15	
Second Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
HIT124	Clinical Classification System I▲+	4	HIT121 **and** Co-BIO124
BIO124	Human Diseases	3	BIO122 **or** BIO123
BIO222	Pharmacology	3	BIO122 **or** BIO123
HIT232	Healthcare Reimbursement Methodologies▲+	2	HIT124
		15	
Summer			
HIT221	Clinical Classification Systems II▲▲*	3	BIO222 **and** HIT124
HIT233	Clinical Classification Systems III▲▲*	2	HIT124
HIT231	Coding Professional Practice Experience/Seminar**▲▲*	1	HIT124
		6	
	TOTAL CREDITS	**36**	

^Based upon SSC placement score.
^^To promote student success, this course should be taken in the first semester.
#BIO121 and BIO122 may be substituted for BIO123
*Students in the Health Information Management major are required to take HIT121. HIT230 is required for all other majors.
**The coding professional practice experience is on campus in our virtual lab.
▲The summer semester courses are accelerated and the schedule is rigorous.
▲+ 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.

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.

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

3100

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	ENG011 **or** Proficiency	
MTH105 **or** MTH124 **or** MTH125	Math for Allied Health^ **or** Statistics ^ Ω **or** College Algebra^ Ω	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 & Ethics▲+	3		
	*Elective**	3-4		
	Total	**34-36**		
	TOTAL CREDIT HOURS	**65-67**		

^Based on SSC placement scores.

^^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.

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

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

***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.**

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.

Application criteria requires a "B" or better in (MTH091 and MTH092) or proficiency, ENG011 or proficiency, and IDS102 or proficiency to apply to the MAT program.

1718 Catalog Effective Summer 2017	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^	3	IDS102 **or** Proficiency
BIO125	Medical Terminology	3	
MAT100	Medical Assisting I▲-	5	Co-MAT101
MAT101	Medical Office Procedures▲-	4	Co-MAT100
		16	
Second Semester			
MTH105	Math for Allied Health^	3	
or	**or**	**or**	
MTH124	Statistics ^ Ω	3	*Check for prerequisites*
or	**or**	**or**	
MTH125	College Algebra^ Ω	4	
MAT102	Medical Assisting II▲+	5	MAT100 **and** MAT101
MAT103	Medical Law & Ethics▲+	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
		14-15	
Third Semester (Summer)			
PSY121	General Psychology^	3	IDS102 **or** Proficiency
COM122	Interpersonal Communication	3	
		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^	3	IDS102 **or** Proficiency
		14	
	TOTAL CREDITS	**65-67**	

^Based on SSC placement scores.

^^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.

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

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

***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.**

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.

Application criteria requires a "B" or better in (MTH091 and MTH092) or proficiency, ENG011 or proficiency, and IDS102 or proficiency to apply to the MAT program.

ASSOCIATE OF APPLIED SCIENCE

MEDICAL ASSISTING – Night 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

3100

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	ENG011 **or** Proficiency	
MTH105 **or** MTH124 **or** MTH125	Math for Allied Health^ **or** Statistics ^ Ω **or** College Algebra^ Ω	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 & Ethics▲+	3		
	*Elective**	3-4		
	Total	**34-36**		
	TOTAL CREDIT HOURS	**65-67**		

^Based on SSC placement scores.

^^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.

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

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

***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.**

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.

Application criteria requires a "B" or better in (MTH091 and MTH092) or proficiency, ENG011 or proficiency, and IDS102 or proficiency to apply to the MAT program.

1718 Catalog Effective Summer 2017	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^	3	IDS102 **or** Proficiency
BIO125	Medical Terminology	3	
MAT100	Medical Assisting I▲-	5	Co-MAT101
MAT101	Medical Office Procedures▲-	4	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^ Ω	4	
MAT102	Medical Assisting II▲+	5	MAT100 **and** MAT101
MAT103	Medical Law & Ethics▲+	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
		14-15	
Third Semester (Summer)			
COM122	Interpersonal Communication	3	
PSY121	General Psychology^	3	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**	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^	3	IDS102 **or** Proficiency
		14	
	TOTAL CREDITS	**65-67**	

^Based on SSC placement scores.

^^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.

***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.**

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

▲- Fall 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.

Application criteria requires a "B" or better in (MTH091 and MTH092) or proficiency, ENG011 or proficiency, and IDS102 or proficiency to apply to the MAT program.

ASSOCIATE OF APPLIED SCIENCE

PHYSICAL THERAPIST ASSISTANT

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.

1718 Catalog
Effective Summer 2017

3150

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	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 Rehab	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 a**nd** 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	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	*Check for prerequisites*	
PHY101	Principles of Physics (lab)^	4	(MTH093 or Proficiency) **or** (MTH105 or MTH106 or MTH107 or MTH108) **and** (IDS102 or Proficiency)	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY123	Human Growth and Development	3	PSY121	
	Total	**32**		
	TOTAL CREDIT HOURS	**67**		

^Based on SSC placement scores.
^^ To promote student success, this course should be taken in the first semester.
# BIO121 and BIO122 can be substituted for BIO123
*MTH125 College Algebra or MTH105 Math for Allied Health may be substituted for MTH124 Statistics

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

1718 Catalog Effective Summer 2017	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
EXS110L	Anatomy of Exercise Lab	1	Co-EXS110
PHY101	Principles of Physics (lab)^	4	(MTH093 or Proficiency) **or** (MTH105 or MTH106 or MTH107 or MTH108) **and** (IDS102 or Proficiency)
PTA118	Principles of Patient Care	1	Co-PTA118L
PTA118L	Principles of Patient Care Lab	2	Co-PTA118
		17	
Second Semester			
BIO124	Human Diseases	3	BIO122 **or** BIO123
EXS120	Exercise Applications	2	EXS110 **and** Co-EXS120L
EXS120L	Exercise Applications Lab	1	Co-EXS120
MTH124	Statistics^*	3	*Check for prerequisites*
PTA120	Intro to Orthopedics	2	PHY101 **and** Co-PTA120L **and** Co-PTA221
PTA120L	Intro to Orthopedics Lab	1	Co-PTA120
PTA221	PTA Procedures I	5	PTA118 **and** Co-PTA120
PTA119	Professional Values and Ethics	1	PTA118
		18	
Third Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
PTA136	Neurological Foundations for Rehab	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	1	PTA119 **and** Co-PTA138
		11	
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	1	Co-PTA248
		14	
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
		7	
	TOTAL CREDITS	**67**	

^Based on SSC placement scores.

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

BIO121 and BIO122 can be substituted for BIO123

*MTH125 College Algebra or MTH105 Math for Allied Health may be substituted for MTH124 Statistics

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

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: 15-13-06.

1718 Catalog
Effective Summer 2017

3200

Health and Public Services Division *Respiratory, Laboratory, and Surgical Technology Dept.*

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	Pharmacology for R.T. ▲-	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 page three for footnotes

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	*Take first semester*	
CHM121	General, Organic and Biological Chemistry I^	4	CHM101 **or** Proficiency	
ENG124	College Composition ^	3	ENG011 **or** Proficiency	
MTH124 **or** MTH125 **or** MTH105	Statistics^ **or** College Algebra^ **or** Math for Allied Health^ Ω	3 **or** 4 **or** 3	*Check for prerequisites*	
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** BIO 141	
RCT129	Respiratory Diseases▲+	3	RCT124	
RCT220	Cardiopulmonary A & P▲-	3	RCT126	
	Sociology or Psychology Elective ^	*3*	*Check for prerequisites*	
	Total	**32-33**		
	TOTAL CREDIT HOURS	**66-67**		

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. **Respiratory Care 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*
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	Pharmacology for R.T. ▲-	2	
BIO123	Principles of Human Structure & Function (lab) ⍋#	5	BIO101 **or** BIO127
BIO125	Medical Terminology	3	
		17	
Second Semester			
CHM121	General, Organic and Biological Chemistry I^	4	CHM101 **or** Proficiency
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
MTH124	Statistics^	3	
or	**or**	**or**	
MTH125	College Algebra^	4	*Check for Pre-requisites*
or	**or**	**or**	
MTH105	Math for Allied Health	3	
RCT129	Respiratory Diseases▲+	3	RCT124
		16-17	

See page three for footnotes

Summer			
RCT126	Critical Care▲*	2	RCT123 **and** Co-RCT126L
RCT126L	Critical Care Laboratory▲*	1	Co-RCT126
RCT128	Practicum II Seminar▲*	1	Co-RCT128C
RCT128C	Practicum II Clinical▲*	1	RCT123 **and** RCT125C **and** Co-RCT128
ENG124	College Composition^	3	ENG011 **or** Proficiency
		8	
Third Semester			
	Sociology or Psychology Elective^[1]	3	*Check for Pre-requisites*
RCT220	Cardiopulmonary A&P▲-	3	RCT126
RCT224	Practicum III Seminar▲-	1	Co-RCT224C
RCT224C	Practicum III Clinical▲-	2	RCT126 **and** RCT128C **and** 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 Laboratory▲-	1	Co-RCT227
		13	
Fourth Semester			
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO 141
RCT223	Patient Assessment and Monitoring▲+	3	RCT220
RCT225	Practicum IV Seminar▲+	1	Co-RCT225C **and** Co-RCT225L
RCT225L	Practicum IV Laboratory▲+	1	Co-RCT225C **and** Co-RCT225
RCT225C	Practicum IV Clinical▲+	3	RCT224C **and** RCT226 **and** RCT227 **and** (Co-RCT225 and Co-RCT225L)
		12	
	TOTAL CREDITS	**66-67**	

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
BIO121 and BIO122 can be substituted for BIO123
⅄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.
▲+ 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.
ΩMTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.
[1] Any Sociology or Psychology Elective.

Application criteria require a "B" or better in BIO101 or HS BIO, CHM101 or HS Chemistry, and MTH091 and MTH092, or proficiency to apply to the RCT program.

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

OCCUPATIONAL THERAPY ASSISTANT

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.

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3250

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** Co-OTA224 **and** OTA221	
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	ENG011 **or** Proficiency	
MTH105	Math for Allied Health^ Ω	3	*Check for prerequisites*	
OTA223	Life Span Development	5	ENG124	
PSY121	General Psychology^	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**		
	TOTAL CREDIT HOURS	**70**		

^Based on SSC placement scores.
BIO121 and BIO122 can be substituted for BIO123
Ω MTH125 College Algebra or MTH124 Statistics should only be taken by students planning to transfer to a four-year institution.

Application criteria require a "B" or better in BIO101, HS BIO, and (MTH91 and MTH092) or Proficiency to apply to the OTA program.
Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

1718 Catalog Effective Summer 2017	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^	3	IDS102 **or** Proficiency
OTA121	Foundations of Occupational Therapy	3	Co-OTA122
OTA122	Therapeutic Media	3	Co-OTA121
ENG124	College Composition^	3	ENG011 **or** Proficiency
BIO125	Medical Terminology	3	
		15	
Second Semester			
MTH105	Math for Allied Health^Ω	3	*Check for prerequisites*
BIO123	Principles of Human Structure and Function (lab)#	5	BIO101 **or** Proficiency
OTA123	Psychosocial Aspects in OT	4	OTA121 **and** OTA122 **and** PSY121 **and** Co-OTA124 **and** Pre-or-Co-PSY221
OTA124	Psychosocial Clinical Experience	3	OTA121 **and** OTA122 **and** Co-OTA123
PSY221	Abnormal Psychology	3	PSY121 **and** Co-OTA123
		18	
Third Semester			
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
OTA223	Life Span Development	5	ENG124
PTA226	Functional Anatomy	4	BIO122 **or** BIO123
		16	
Fourth Semester			
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 **and** Pre-Co-BIO124
OTA225	Physical Dysfunction Clinical Experience	3	OTA222 **and** Co-OTA224 **and** OTA221
		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** Co-OTA228
OTA228	Clinical Application II	3	OTA224 **and** OTA225 **and** Co-OTA226 **and** Co-OTA227
		8	
	TOTAL CREDITS	**70**	

^Based on SSC placement scores.

BIO121 and BIO122 can be substituted for BIO123

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

Application criteria require a "B" or better in BIO101, HS BIO, and (MTH91 and MTH092) or Proficiency to apply to the OTA program.

Minimum grade of "C" in all technical and non-technical courses in the program curriculum is required.

ASSOCIATE OF APPLIED SCIENCE

MEDICAL LABORATORY 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. 3357:15-13-06.

1718 Catalog
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3300

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	
CHM122	General, Organic, and Biological Chemistry II	4	CHM121	
MTH124	Statistics^	3	*Check for prerequisites*	
ENG124	College Composition^	3	ENG011 **or** 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**		

^Based on SSC placement scores.

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

BIO121 and BIO122 can be substituted for BIO123

⍋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.

*Choose from sociology or psychology offerings

Application criteria requires a "B" or better in BIO101 or HS BIO, CHM101 or HS CHM, and MTH093 and MTH094, or proficiency to apply to the MLT 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.

1718 Catalog Effective Summer 2017	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		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
BIO123	Principles of Human Structure & Function (lab)⅄#	5	BIO101 **or** Proficiency
CHM121	General, Organic, and Biological Chemistry I^	4	CHM101 **or** Proficiency
MLT121	Fundamentals of Laboratory Techniques▲-	2	
MLT126	Immunology/Serology▲-	3	
MLT123	Hematology I▲-	3	
		18	
Second Semester			
CHM122	General, Organic, and Biological Chemistry II	4	CHM121
MTH124	Statistics^	3	*Check for prerequisites*
MLT124	Hematology II▲+	3	MLT123
MLT125	Immunohematology▲+	5	MLT126
		15	
Summer			
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO141
MLT122	Urinalysis and Body Fluids▲*	3	MLT124
		7	
Fourth Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
MLT222	Clinical Chemistry▲-	4	(BIO122 or BIO123) **and** CHM122 **and** MLT121 **and** MLT122
MLT223	Clinical Microbiology▲-	5	BIO221 **and** MLT126
		12	
Fifth Semester			
*Social Science Elective**		3	*Check for prerequisites*
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
		13	
	TOTAL CREDITS	**65**	

^Based on SSC placement scores.

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

BIO121 and BIO122 can be substituted for BIO123

⅄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.

*Choose from sociology or psychology offerings

Application criteria requires a "B" or better in BIO101 or HS BIO, CHM101 or HS CHM, and MTH093 and MTH094, or proficiency to apply to the MLT 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

CONCEPT-BASED NURSING

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.

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3358

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	*Check for prerequisites*	
BIO101	Introduction to Anatomy and Physiology	3	IDS102 **or** Proficiency	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
	TOTAL CREDIT HOURS	**13**		

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	

See reverse for footnotes

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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 **and** NSG141L **and** NSG141C **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 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)➹	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 & Development	3	PSY121	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
	Total	**18**		
	TOTAL CREDIT HOURS	**64**		

^Based on SSC placement score.

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

➹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.

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.

1718 Catalog Effective Summer 2017	CONCEPT-BASED NURING	**3358**

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.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
MTH124	Statistics^	3	*Check for prerequisites*
BIO101	Introduction to Anatomy and Physiology	3	IDS102 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		13	
Second Semester			
BIO121	Anatomy and Physiology I (lab) ⅄	4	BIO101 **or** Proficiency
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)
		12	
Third Semester			
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
BIO122	Anatomy and Physiology II (lab)	4	BIO121 **or** BIO123
PSY123	Human Growth & Development	3	PSY121
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

See reverse for footnotes

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
		14	
Fourth Semester			
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
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
BIO221	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 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
		13	
Fifth Semester			
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
SOC121	Sociology	3	IDS101 **or** Proficiency
		12	
	TOTAL CREDITS	**64**	

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
➹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.

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.

ASSOCIATE OF APPLIED SCIENCE
CONCEPT-BASED RN COMPLETION FOR PARAMEDICS

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.

1718 Catalog
Effective Summer 2017

3359

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)

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 **and** Co-NSG122 **and** Co-NSG122C **and** Co-NSG101	
NSG122C	Transition for the Paramedic (clinical)	1.5	Admission to Program **and** Co-NSG122 **and** Co-NSG122L **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	
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	

See reverse side for footnotes.

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
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	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH124	Statistics^	3	*Check for prerequisites*	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY123	Human Growth & Development	3	PSY121	
SOC121	Sociology^	3	IDS102 **or** proficiency	
	Total	**27**		
	TOTAL CREDIT HOURS	**54**		

^Based on SSC placement score

⅄Because of strong emphasis on science in this major, applicants must have successfully completed Biology in high school. Students who did not complete the course~~s~~ in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisite~~s~~.

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 seeking advanced standing admission.

1718 Catalog Effective Summer 2017	CONCEPT-BASED RN COMPLETION FOR PARAMEDICS	3359

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
BIO121	Anatomy and Physiology I (Lab) ⅄	4	BIO101 **or** Proficiency
PSY121	General Psychology	3	IDS102 **or** Proficiency
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)
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 **and** Co-NSG122 **and** Co-NSG122C **and** Co-NSG101
NSG122C	Transition for the Paramedic (clinical)	1.5	Admission to Program **and** Co-NSG122 **and** Co-NSG122L **and** Co-NSG101
		13	
Second Semester			
PSY123	Human Growth and Development	3	PSY121
BIO122	Anatomy and Physiology II (Lab)	4	BIO121 **or** BIO123
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 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 of Patients with Mental Illness Issues (clinical)	1	(BIO121 o**r** 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
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
		14	
Third Semester			
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO141
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH124	Statistics^	3	*Check for prerequisites*

See reverse side for footnotes.

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
		15	
Fourth Semester			
SOC121	Sociology^	3	IDS102 **or** Proficiency
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 (lecture)	3	BIO221 **and** PSY123 **and** NSG221 **and** NSG221L **and** NSG221C **and** NSG241 **and** NSG241L **and** NSG241C **and** Co-NSG261 **and** Co-NSG261L
		12	
	TOTAL CREDITS	**54**	

^Based on SSC placement score
+Minimum grade of "B" required.
++Minimum grade of "C" required.
⅄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.

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 seeking advanced standing admission.

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 only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

3360

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)

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 **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	
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	
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	

See reverse page for footnotes.

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**
MTH124	Statistics^	3	MTH093 **or** Proficiency	
BIO121	Anatomy and Physiology I (lab) ⅄	4	BIO101 **or** Proficiency	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO141	
BIO122	Anatomy and Physiology II (Lab)	4	BIO121 **or** BIO123	
PSY123	Human Growth & Development	3	PSY121	
SOC121	Sociology^	3	IDS102 **or** proficiency	
	Total	**14**		
	TOTAL CREDIT HOURS	**54**		

^Based on SSC placement scores

⅄Because of strong emphasis on science in this major, applicants must have successfully completed Biology in high school. Students who did not complete the course~~s~~ in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisite~~s~~.

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.

1718 Catalog Effective Summer 2017	CONCEPT-BASED RN COMPLETION FOR LPN	3360

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.

Pre-Nursing Courses		Credit Hours	Pre- and Co-requisites
MTH124	Statistics^	3	*Check for prerequisites*
BIO121	Anatomy and Physiology I (Lab) ✦	4	BIO101 **or** Proficiency
PSY121	General Psychology ^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		13	
First Semester			
BIO122	Anatomy and Physiology II (Lab)	4	BIO121 **or** BIO123
First Semester – 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) **or** (Co-NSG123 and Co-NSG123L and Co-NSG123C)
NSG123	Transition for the LPN (lecture)	2	Admission to Program **and** Co-NSG123L **and** NSG123C **and** Co-NSG101
NSG123L	Transition for the LPN (lab)	0.5	Admission to Program **and** Co-NSG123 **and** NSG123C **and** Co-NSG101
NSG123C	Transition for the LPN (clinical)	1.5	Admission to Program **and** Co-NSG123 **and** 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)	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
		13	
Second Semester			
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
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** NSG221C

See reverse page for footnotes.

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
PSY 123	Human Growth & 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 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
		16	

Third Semester

SOC 121	Sociology^	3	IDS102 **or** Proficiency
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
		12	
	TOTAL CREDITS	**54**	

^Based on SSC placement scores

⅄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.

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.

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 only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-06.

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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 **or** *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 Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	*Take first semester*	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH105	Math for Allied Health^	3	*Check for prerequisites*	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
COM122	Interpersonal Communications	3		
MAT103	Medical Law and Ethics	3		
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
BIO101	Intro to Anatomy & Physiology^	3	IDS102 **or** Proficiency	
BIO123	Principles of Human Structure and Function# (lab)	5	BIO101 **or** Proficiency	
BIO125	Medical Terminology	3		
	Total	**30**		
	TOTAL CREDIT HOURS	**64**		

^Based on SSC placement score.
^^ To promote student success, this course should be taken in the first semester.
# BIO121 and BIO122 can be substituted for BIO123
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.

1718 Catalog Effective Summer 2017	OPHTHALMIC TECHNOLOGY	3364

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	Intro to Anatomy & Physiology^	3	IDS102 **or** Proficiency
BIO125	Medical Terminology	3	
		15	
Second Semester			
OPH103	Ophthalmic Procedure II	4	OPH102 **and** Co-OPH105 **and** Co-OPH106
OPH104	Ophthalmic Practicum I	3	OPH103 **or** 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^	3	*Check for prerequisites*
		14	
Summer			
OPH107	Ophthalmology Practicum II	2	OPH104
PSY121	General Psychology^	3	IDS102 **or** Proficiency
COM122	Interpersonal Communications	3	
		8	
Third Semester			
OPH200	Ophthalmic Procedures III	4	OPH103 **or** *Program Coordinator approval*
OPH201	Ophthalmology Practicum III	2	OPH107 **and** Co-OPH200
ENG124	College Composition^	3	ENG011 **or** Proficiency
BIO123	Principles of Human Structure and Function# (lab)	5	BIO101 **or** Proficiency
		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^	3	ITD100 **or** Proficiency
		13	
	TOTAL CREDITS	**64**	

^Based on SSC placement score.

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

BIO121 and BIO122 can be substituted for BIO123

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.

ONE-YEAR CERTIFICATE

OPHTHALMIC ASSISTANT

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

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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 **or** 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 & Physiology^	3	IDS102 **or** Proficiency	
BIO125	Medical Terminology	3		
COM122	Interpersonal Communications	3		
MTH105	Math for Allied Health^	3	*Check for prerequisites*	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
	Total	**15**		
	TOTAL CREDIT HOURS	**36**		

^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.

1718 Catalog Effective Summer 2017	OPHTHALMIC ASSISTANT	3368

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		Credit Hours	Pre- and Co-requisites
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 & Physiology^	3	IDS102 **or** Proficiency
BIO125	Medical Terminology	3	
		14	
Second Semester			
OPH103	Ophthalmic Procedure II	4	OPH102 **and** Co-OPH105 **and** Co-OPH106
OPH104	Ophthalmic 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^	3	*Check for prerequisites*
		14	
Summer			
OPH107	Ophthalmology Practicum II	2	OPH104
PSY121	General Psychology^	3	IDS102 **or** Proficiency
COM122	Interpersonal Communications	3	
		8	
	TOTAL CREDITS	**36**	

^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

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.

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3373

Health and Public Services Division

Respiratory, Laboratory, and Surgical Technology Dept.

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SUR100	Surgical Pathophysiology▲ +	3	SUR104	
SUR102	Principles of Surgery I▲-	3	Co-SUR102L	
SUR102L	Principles of Surgery I Lab▲-	1	Co-SUR102	
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	
SUR108C	Surgical Clinical Practicum I▲ ∗	1	SUR106 **and** SUR106L **and** Co-SUR108	
SUR108	Surgical Clinical Practicum I Seminar▲ ∗	1	Co-SUR108C	
SUR200	Surgical Specialties I▲-	2	SUR106 **and** Co-SUR200L	
SUR200L	Surgical Specialties I Lab▲-	1	SUR106L **and** Co-SUR200	
SUR201C	Surgical Clinical Practicum II▲-	3	SUR108C and Co-SUR201	
SUR201	Surgical Clinical Practicum II 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 III▲ +	3	SUR201C **and** Co-SUR203 **and** Co-SUR204	
SUR203	Surgical Clinical Practicum III Seminar▲ +	1	Co-SUR203C	
SUR204	Surgical Specialties Capstone▲ +	2	Co-SUR203C	
	Total	**32**		

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	ENG011 **or** Proficiency	
PHL122	Ethics	3		
BIO123	Principles of Human Structure & 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	
MTH105	Math for Allied Health^ Ω	3	*Check for prerequisites*	
PSY222	Psychological Aspects of Therapy^	3	IDS102	
	*Sociology Elective^**	3	*Check for prerequisites*	
	Total	**31**		
	TOTAL CREDIT HOURS	**63**		

See reverse side for footnotes

1718 Catalog Effective Summer 2017	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 other 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 & Function (lab)➢#	5	BIO101 **or** Proficiency
BIO125	Medical Terminology	3	
SUR102	Principles of Surgery I▲-	3	Co-SUR102L
SUR102L	Principles of Surgery I Lab▲-	1	Co-SUR102
SUR104	Surgical Pharmacology▲-	3	Pre-Co-(BIO122 **o**r BIO123)
		16	
Second Semester			
BIO124	Human Diseases	3	BIO122 **or** BIO123
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO141
SUR100	Surgical Pathophysiology▲ +	3	SUR104
SUR106	Principles of Surgery II▲ +	3	SUR102 **and** Co-SUR106L
SUR106L	Principles of Surgery II Lab▲+	1	SUR102L **and** Co-SUR106
		14	
Summer			
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH105	Math for Allied Health^ Ω	3	*Check for prerequisites*
SUR108C	Surgical Clinical Practicum I▲ *	1	SUR106 **and** SUR106L **and** Co-SUR108
SUR108	Surgical Clinical Practicum I Seminar▲ *	1	Co-SUR108C
		8	
Third Semester			
PSY222	Psychological Aspects of Therapy^	3	IDS102
	*Sociology Elective^**	3	*Check for prerequisites*
SUR200	Surgical Specialties I▲-	2	SUR106 **and** Co-SUR200L
SUR200L	Surgical Specialties I Lab▲-	1	SUR106L **and** Co-SUR200
SUR201C	Surgical Clinical Practicum II▲-	3	SUR108C **and** Co-SUR201
SUR201	Surgical Clinical Practicum II Seminar▲-	1	Co-SUR201C
		13	
Fourth Semester			
PHL122	Ethics	3	
SUR202	Surgical Specialties II▲ +	2	SUR200 **and** Co-SUR202L
SUR202L	Surgical Specialties II Lab▲ +	1	SUR200L **and** Co-SUR202
SUR203C	Surgical Clinical Practicum III▲ +	3	SUR201C **and** Co-SUR203 **and** Co-SUR204
SUR203	Surgical Clinical Practicum III Seminar▲ +	1	SUR203C
SUR204	Surgical Specialties Capstone▲ +	2	Co-SUR203C
		12	
	TOTAL CREDITS	**63**	

^Based on SSC placement score.

^^ 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 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.

+ Requires a grade of "B" or better.

*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.

Application criteria require a "B" or better in BIO101 or HS BIO, (MTH091 and MTH092) or proficiency, and ITD100 or proficiency 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.

ONE-YEAR CERTIFICATE

SURGICAL ASSISTING 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. 3357:15-13-06.

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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 **and** 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 Clinical Practicum I▲-	3	SUA102 **and** SUA102L **and** Co-SUA108	
SUA108	Surgical Assisting Clinical Practicum 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**		

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

Application criteria require a student to have two years' current clinical experience working as a surgical technologist with CST credential or operating room nurse with CNOR certification or physician assistant with current certification. Applicants with three years of working experience within the last five years as an operating room scrub (or assisting) or military medical training with surgical assistant experience will also be eligible for application.

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 (Summer)		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take First Semester*
SUA100	Introduction to Surgical Assisting▲*	3	Admission to Program **and** Co-SUA102 **and** Co-SUA102L
SUA102	Principles of Surgical Assisting▲*	3	Co-SUA100 **and** Co-SUA102L
SUA102L	Principles of Surgical Assisting Lab▲*	1	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 Clinical Practicum I▲-	3	SUA102 **and** SUA102L **and** Co-SUA108
SUA108	Surgical Assisting Clinical Practicum I Seminar▲-	1	Co-SUA108C
		11	
Third Semester			
PHL122	Ethics	3	
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
		12	
	TOTAL CREDITS	**31**	

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

Application criteria require a student to have two years' current clinical experience working as a surgical technologist with CST credential or operating room nurse with CNOR certification or physician assistant with current certification. Applicants with three years of working experience within the last five years as an operating room scrub (or assisting) or military medical training with surgical assistant experience will also be eligible for application.

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

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.

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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 & Oral Anatomy▲-	2	Co-DHY123	
DHY122	Oral Histology & 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 & 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., & Bio., Chemistry I (lab)☐	4	HS CHM **or** CHM101	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH124	Statistics^	3	*Check for prerequisites*	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
	Total	**32**		
	TOTAL CREDIT	**73**		

^Based on SSC placement scores

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

#May not be taken earlier than 3 years prior to enrollment in DHY121.

☐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.

▲+ 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.

Minimum grade of "C" in all technical courses is required.

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.

Pre-Eligibility Courses		Credit Hours	Pre- and Co-Requisites
CHM121	Gen., Org., & Bio., Chemistry I (lab)☐	4	HS CHM **or** CHM101
BIO121	Anatomy and Physiology I (lab)☐	4	BIO101 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		14	
First Semester			
DHY121	Head, Neck & Oral Anatomy▲-	2	Co-DHY123
DHY122	Oral Histology & Embryology▲*	1	
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^^	1	*Take first semester*
Second Semester		**15**	
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-
BIO221	Principles of Microbiology (lab)#	4	BIO122 **or** BIO123 **or** BIO141
Summer Semester		**15**	
DHY134	Clinical Dental Hygiene IA▲*	1	DHY133
DHY221	Nutrition in Dentistry▲*	1	DHY132
MTH124	Statistics^	3	*Check for prerequisites*
		5	
Third Semester			
SOC121	Sociology^	3	IDS102 **or** Proficiency
DHY222	Dental Pharmacology▲-	2	BIO221 **and** DHY126
DHY223	Community Oral Health▲-	1	DHY134
DHY225	Anesthesia & 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
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▲+	5	DHY232 **and** Co-DHY233
		11	
	TOTAL CREDITS	**73**	

^Based on SSC placement scores

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

#May not be taken earlier than 3 years prior to enrollment in DHY121.

☐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.

▲+ 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.

Minimum grade of "C" in all technical courses is required.

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

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Health and Public Services Division *Allied Dental Health Professions Department*

Course Number	Course Title	Credits	Pre-and Co-Requisites	Completed Sem./Year
FRESHMAN EXPERIENCE				
SSC101	Student Success Seminar^^	1	*Take First Semester*	
COMPUTER APPLICATIONS& BUSINESS				
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
ENGLISH COMPOSITION				
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG230	Business Communication	3	ENG124	
SOCIAL & BEHAVIORAL SCIENCES				
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY124	Industrial/Organizational Psychology	3		
SOC121	Sociology^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES				
PHL122	Ethics	3		
SOC225	Cultural Diversity	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 or Proficiency	
BIO122	Anatomy and Physiology II (lab)	4	BIO121 **or** BIO123	
MTH125 **or** MTH124	College Algebra^ **or** Statistics^	4 **or** 3	*Check for prerequisites*	
	Total	**45-46**		
AREA OF CONCENTRATION COURSES: All required.				
DAS121	Dental Assisting Techniques I**	3		
DAS122	Dental Assisting Radiography	2		
DAS123	Dental Assisting Techniques II	3		
DAS124	Dental Assisting Materials	2		
DAS125	Dental Assisting Specialty#	3		
DAS128	Intro to Dental Terminology & Basic Anatomy	2	DAS128	
	Total	**15**		
	TOTAL CREDIT HOURS	**60-61**		

^Based upon SSC placement score

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

⅄ 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.

**Course may be taken in conjunction with other technical courses, but must be taken in the first semester of technical course work.

Minimum grade of "C" in all concentration courses is required.

1718 Catalog Effective Summer 2017	DENTAL ASSISTING	3425

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.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
DAS121	Dental Assisting Techniques I**	3	
DAS122	Dental Assisting Radiography	2	
DAS128	Intro to Dental Terminology & Basic Anatomy	2	
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH125	College Algebra^	4	
or	**or**	**or**	*Check for prerequisites*
MTH124	Statistics^	3	
		14-15	
Second Semester			
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 **or** Proficiency
DAS123	Dental Assisting Techniques II	3	DAS121
DAS124	Dental Assisting Materials	2	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
SOC121	Sociology^	3	IDS102 **or** Proficiency
		14	
Third Semester			
DAS125	Dental Assisting Specialty#	3	DAS123
PSY121	General Psychology^	3	IDS102 **or** Proficiency
		6	
Fourth Semester			
BIO121	Anatomy and Physiology I (lab) ✦	4	BIO101 **or** Proficiency
COM121	Effective Speaking	3	
PSY124	Industrial/Organizational Psychology	3	
SOC225	Cultural Diversity	3	
		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	3	
		13	
	TOTAL CREDITS	**60-61**	

^Based upon SSC placement score

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

✦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.

**Course may be taken in conjunction with other technical courses, but must be taken in the first semester of technical course work.

Minimum grade of "C" in all technical courses is required.

ASSOCIATE OF SCIENCE

EXPANDED FUNCTIONS DENTAL AUXILIARY

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.

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Health and Public Services Division *Allied Dental Health Professions Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXPERIENCE				
SSC101	Student Success Seminar^^	1	*Take First Semester*	
COMPUTER APPLICATIONS & BUSINESS				
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
ITD222	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
WRITTEN & ORAL COMMUNICATION:				
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG230	Business Communication	3	ENG124	
SOCIAL & BEHAVIORAL SCIENCES:				
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY124	Industrial/Organizational Psychology	3		
SOC121	Sociology^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES:				
PHL122	Ethics	3		
SOC225	Cultural Diversity	3		
SCIENCES & MATHEMATICS: 14 credits minimum				
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 or Proficiency	
BIO121	Anatomy and Physiology I (lab) ⅄	4	BIO101 **or** Proficiency	BIO121
BIO122	Anatomy and Physiology II (lab)	4	BIO121 **or** BIO123	
MTH125	College Algebra^	4	*Check for prerequisites*	
	TOTAL GENERAL EDUCATION CREDITS	**46**		
AREA OF CONCENTRATION COURSES: All required.				
DAS128	Intro to Dental Anatomy and Terminology	2		
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	3	Co-DAS225 **and** Co-DAS226	
DAS228	Directed Clinical Practice	5	DAS225 **and** DAS226 **and** DAS227	
	TOTAL TECHNICAL CREDITS	**14**		
	TOTAL CREDIT HOURS	**60**		

See reverse side for footnotes.

1718 Catalog Effective Summer 2017	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 other 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	3	Co-DAS225 **and** Co-DAS226
MTH125	College Algebra^	4	*Check for prerequisites*
SSC101	Student Success Seminar^^	1	*Take first semester*
		12	
Second Semester			
BIO101	Introduction to Anatomy and Physiology^	3	IDS102 **or** Proficiency
DAS228	Directed Clinical Practice	5	DAS225 **and** DAS226 **and** DAS227
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
SOC121	Sociology^	3	IDS102 **or** Proficiency
		14	
Summer Semester			
PSY121	General Psychology^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
DAS128	Intro to Dental Anatomy and Terminology	2	
		8	
Fourth Semester			
BIO121	Anatomy and Physiology I (lab) ⅄	4	BIO101 **or** Proficiency
COM121	Effective Speaking	3	
PSY124	Industrial/Organizational Psychology	3	
SOC225	Cultural Diversity	3	
		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	3	
		13	
	TOTAL CREDITS	**60**	

^Based upon SSC placement score

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

⅄ 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.

Minimum grade of "C" in all concentration courses is required.

ASSOCIATE OF TECHNICAL STUDIES

ATS MASSAGE THERAPY – FALL START

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.

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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 & Physiology I✯	1		
MAS124	Massage Therapy Anatomy & 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	
BIO124	Human Diseases	3	BIO122 **or** BIO123	
	Total	**30**		

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	
BIO125	Medical Terminology	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
GER121	Introduction to Gerontology	3		
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH105 **or** MTH124	Math for Allied Health^Ω **or** Statistics^	3 **or** 3	*Check for prerequisites*	
PHL122	Ethics	3		
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency	
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores.
^^ To promote student success, this course should be taken in the first semester.
✯Indicates only offered as Web 3.
⅄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.

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.

1718 Catalog Effective Summer 2017	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		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
MAS121	Massage Therapy I	6	
BIO121	Anatomy and Physiology I (lab)^⅄	4	BIO101 **or** Proficiency
COM121	Effective Speaking	3	
ENG 124	College Composition^	3	ENG011 **or** Proficiency
MAS123	Massage Therapy Anatomy & Physiology I☆	1	
		18	
Spring Semester			
MAS122	Massage Therapy II	2	MAS121 **and** MAS123
BIO122	Anatomy and Physiology II (lab)	4	BIO121 **or** BIO123
MAS124	Massage Therapy Anatomy & Physiology II☆	2	MAS123 **and** Pre-Co-BIO122
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency
MAS224	Massage Therapy III	2	MAS122
		13	
Summer Semester			
BIO124	Human Diseases	3	BIO122 **or** BIO123
BIO125	Medical Terminology	3	
MAS225	Massage Therapy IV	2	MAS224
MAS228	Professional Practice and Evaluation	1	MAS122
		9	
Fall Semester			
MTH105	Math for Allied Health^Ω	3	*Check for prerequisites*
or	**or**	**or**	
MTH124	Statistics^	3	
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	2	MAS225
		13	
Spring Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
GER121	Introduction to Gerontology	3	
PHL122	Ethics	3	
		9	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores.

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

☆Indicates only offered as Web 3.

⅄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.

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.

ASSOCIATE OF TECHNICAL STUDIES

ATS MASSAGE THERAPY – SPRING START

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.

1718 Catalog
Effective Summer 2017

3450

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 & Physiology I✯	1		
MAS124	Massage Therapy Anatomy & 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	
BIO124	Human Diseases	3	BIO122 **or** BIO123	
	Total	**30**		

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	
BIO125	Medical Terminology	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
GER121	Introduction to Gerontology	3		
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH105 **or** MTH124	Math for Allied Health^Ω **or** Statistics^	3 **or** 3	*Check for prerequisites*	
PHL122	Ethics	3		
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency	
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores.
^^ To promote student success, this course should be taken in the first semester.
✯Indicates only offered as Web 3.
⅄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.

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.

1718 Catalog Effective Summer 2017	ATS MASSAGE THERAPY – SPRING 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.

Spring Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
MAS121	Massage Therapy I	6	
BIO121	Anatomy and Physiology I (lab)^⅄	4	BIO101 **or** Proficiency
COM121	Effective Speaking	3	
MAS123	Massage Therapy Anatomy & Physiology I✯	1	
		15	
Summer Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
MAS122	Massage Therapy II	2	MAS121 **and** MAS123
ENG124	College Composition^	3	ENG011 **or** Proficiency
BIO125	Medical Terminology	3	
		11	
Fall Semester			
BIO122	Anatomy & Physiology II (lab)	4	BIO121 **or** BIO123
MAS124	Massage Therapy Anatomy & Physiology II✯	2	MAS123 **and** 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 & Evaluation	1	MAS122
		16	
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	2	MAS225
		11	
Summer Semester			
MTH105	Math for Allied Health^Ω	3	
or	**or**	**or**	*Check for prerequisites*
MTH124	Statistics^	3	
GER121	Introduction to Gerontology	3	
PHL122	Ethics	3	
		9	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores.

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

✯**Indicates only offered as Web 3.**

⅄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.

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.

ASSOCIATE OF APPLIED SCIENCE

AAS MASSAGE THERAPY – FALL START

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.

1718 Catalog
Effective Summer 2017

3453

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 & Physiology I☆	1		
MAS124	Massage Therapy Anatomy & 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	MAS 224	
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	ENG011 **or** Proficiency	
MTH105 **or** MTH124	Math for Allied Health^Ω **or** Statistics^	3 **or** 3	*Check for prerequisites*	
NTR121	Nutrition for Health^	3	IDS102 **or** Proficiency	
PHL122	Ethics	3		
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency	
PTA226	Functional Anatomy	4	BIO122 **or** BIO123	
	TOTAL	**31**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores

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

☆Indicates only offered as Web 3.

⅄ 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.

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.

1718 Catalog Effective Summer 2017	AAS MASSAGE THERAPY – FALL 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.

Fall Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
MAS121	Massage Therapy I	6	
BIO121	Anatomy and Physiology I (lab)^⅄	4	BIO101 **or** Proficiency
BIO125	Medical Terminology	3	
MAS123	Massage Therapy Anatomy & Physiology I☆	1	
		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 & Physiology II☆	2	MAS123 **and** Pre-Co-BIO 122
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency
MAS224	Massage Therapy III	2	MAS122
		13	
Summer Semester			
BIO124	Human Diseases	3	BIO122 **or** BIO123
ENG 124	College Composition^	3	ENG011 **or** Proficiency
MAS225	Massage Therapy IV	2	MAS224
MAS228	Professional Practice and Evaluation	1	MAS122
		9	
Fall Semester			
MTH105	Math for Allied Health^Ω	3	
or	**or**	**or**	*Check for prerequisites*
MTH124	Statistics^	3	
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	2	MAS225
		13	
Spring Semester			
MAS231	Sports Massage	2	MAS121
NTR121	Nutrition for Health^	3	IDS102 **or** Proficiency
PTA226	Functional Anatomy	4	BIO122 **or** BIO123
PHL122	Ethics	3	
		12	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores

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

☆Indicates only offered as Web 3.

⅄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.

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

ASSOCIATE OF APPLIED SCIENCE

AAS MASSAGE THERAPY – SPRING START

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.

1718 Catalog
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3453

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 & Physiology I✯	1		
MAS124	Massage Therapy Anatomy & 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	MAS 224	
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	ENG011 **or** Proficiency	
MTH105 **or** MTH124	Math for Allied Health^Ω **or** Statistics^	3 **or** 3	*Check for prerequisites*	
NTR121	Nutrition for Health^	3	IDS102 **or** Proficiency	
PHL122	Ethics	3		
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency	
PTA226	Functional Anatomy	4	BIO122 **or** BIO123	
	TOTAL	**31**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester.
✯Indicates only offered as Web 3.
⍋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.

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.

1718 Catalog Effective Summer 2017	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	
BIO121	Anatomy & Physiology I (lab)^⅄	4	BIO101 **or** Proficiency
BIO125	Medical Terminology	3	
MAS123	Massage Therapy Anatomy & Physiology I✯	1	
		15	
Summer Semester			
BIO122	Anatomy & Physiology II (lab)	4	BIO121 **or** BIO123
MAS122	Massage Therapy II	2	MAS121 **and** MAS123
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency
		9	
Fall Semester			
BIO124	Human Diseases	3	BIO122 **or** BIO123
MAS124	Massage Therapy Anatomy & 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	1	MAS122
		12	
Spring Semester			
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) **and** Pre-Co-MAS226
MAS226	Massage Therapy V	3	MAS124 **and** MAS225
MAS229	Clinic Operations	2	MAS225
MAS231	Sports Massage	2	MAS121
PTA226	Functional Anatomy	4	BIO122 **or** BIO123
		14	
Summer			
MTH105	Math for Allied Health^Ω	3	
or	**or**	**or**	*Check for prerequisites*
MTH124	Statistics^	3	
ENG 124	College Composition^	3	ENG011 **or** Proficiency
NTR121	Nutrition for Health^	3	IDS102 **or** Proficiency
PHL122	Ethics	3	
		12	
	TOTAL CREDITS	**62**	

^Based on SSC placement scores

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

✯Indicates only offered as Web 3.

⅄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.

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.

ONE-YEAR CERTIFICATE

MASSAGE THERAPY – FALL START

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.

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3451

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 & Physiology I✯	1		
MAS124	Massage Therapy Anatomy & 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**		

^Based on SSC placement scores.
^^ To promote student success, this course should be taken in the first semester.
✯Indicates only offered as Web 3.
⅄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.

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.

1718 Catalog Effective Summer 2017	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 Hours	Pre- and Co-requisites
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 & Physiology I☆	1	
PSY222	Psychological Aspects of Therapy^	3	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 & Physiology II☆	2	MAS123 **and** Pre-Co-BIO122
MAS224	Massage Therapy III	2	MAS122
		10	
Summer Semester			
BIO124	Human Diseases	3	BIO122 **or** BIO123
MAS225	Massage Therapy IV	2	MAS224
MAS228	Professional Practice & Evaluation	1	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	2	MAS225
		10	
	TOTAL CREDITS	**41**	

^Based on SSC placement scores.

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

☆Indicates only offered as Web 3.

⅄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.

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.

ONE-YEAR CERTIFICATE

MASSAGE THERAPY - SPRING START

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.

1718 Catalog
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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 & Physiology I✯	1		
MAS124	Massage Therapy Anatomy & 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**		

^Based on SSC placement scores.
^^ To promote student success, this course should be taken in the first semester.
✯Indicates only offered as Web 3.
⅄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.

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.

1718 Catalog Effective Summer 2017	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 Hours	Pre- and Co-requisites
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 & Physiology I☆	1	
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency
		15	
Summer Semester			
MAS122	Massage Therapy II	2	MAS121 **and** MAS123
		2	
Fall Semester			
BIO122	Anatomy and Physiology II (lab)	4	BIO121 or BIO123
MAS124	Massage Therapy Anatomy & 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	1	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	2	MAS225
		13	
	TOTAL CREDITS	**41**	

^Based on SSC placement scores.

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

☆**Indicates only offered as Web 3.**

⅄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.

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.

ASSOCIATE OF TECHNICAL STUDIES

MEDICAL INSTRUMENT STERILIZATION 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

3500

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 **or** Co-BIO101	
MIS125	Medical Instrument Sterilization I/Directed Practice▲-	2	(BIO125 or Co-BIO125) **and** Co-MIS124	
MIS126	Medical Instrument Sterilization II▲+	4	MIS124	
MIS127	Medical Instrument Sterilization II/Directed Practice▲+	3	MIS125 **and** 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** 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^	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	ENG011 **or** Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH105 **or** MTH124 **or** MTH125	Math for Allied Health^ Ω **or** Statistics ^ **or** College Algebra^	3 **or** 3 **or** 4	*Check for prerequisites*	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PHL122	Ethics	3		
	Social Science Elective^*	3	IDS102 **or** Proficiency	
	Total	**32-33**		
	TOTAL CREDIT HOURS	**62-63**		

^Based on SSC placement scores.
^^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.
#BIO121 and BIO122 can be substituted for BIO123.
*May select from Sociology offerings only
▲+ 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.

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.

1718 Catalog Effective Summer 2017	MEDICAL INSTRUMENT STERILIZATION TECHNICIAN	3500

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 other 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^	3	IDS102 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
BIO125	Medical Terminology	3	
MIS124	Medical Instrument Sterilization I▲-	4	BIO101 **or** Co-BIO101
MIS125	Medical Instrument Sterilization I/Directed Practice▲-	2	(BIO125 or Co-BIO125) **and** Co-MIS124
		16	
Second Semester			
BIO123	Principles of Human Structure and Function (lab)#	5	BIO101 **or** Proficiency
MIS123	Introduction to Surgical Terminology/Microbiology▲+	3	MIS124
MIS126	Medical Instrument Sterilization II▲+	4	MIS124
MIS127	Medical Instrument Sterilization II/Directed Practice▲+	3	MIS125 **and** Co-MIS126
		15	
Summer			
MIS222	Medical Instrument Sterilization III▲*	2	MIS123 **and** MIS126
MIS223	Medical Instrument Sterilization III/Directed Practice▲*	1	MIS127 **and** Co-MIS222
PHL122	Ethics	3	
		6	
Third Semester			
BIO124	Human Diseases	3	BIO122 **or** BIO123
COM122	Interpersonal Communication	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
		12	
Fourth Semester			
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO141
COM121	Effective Speaking	3	
MTH105	Math for Allied Health^ Ω	3	
or	**or**	**or**	
MTH124	Statistics^	3	*Check for prerequisites*
or	**or**	**or**	
MTH125	College Algebra^	4	
	Social Science Elective^*	3	IDS102 **or** Proficiency
		13-14	
	TOTAL CREDITS	**62-63**	

See page one for footnotes.

ONE-YEAR CERTIFICATE

MEDICAL INSTRUMENT STERILIZATION 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: 15-13-06.

1718 Catalog
Effective Summer 2017

3501

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	Pre-Co-BIO101	
MIS125	Medical Instrument Sterilization I/Directed Practice▲-	2	Pre-Co-BIO125 **and** Co-MIS124	
MIS126	Medical Instrument Sterilization II▲+	4	MIS124	
MIS127	Medical Instrument Sterilization II/Directed Practice▲+	3	MIS125 **and** Co-MIS126	
MIS123	Intro 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** 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	ENG011 **or** Proficiency	
PHL122	Ethics	3		
	Total	**13**		
	TOTAL CREDIT HOURS	**32**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
▲+ 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.

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.

1718 Catalog Effective Summer 2017	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	Pre-Co-BIO101
MIS125	Medical Instrument Sterilization I/Directed Practice▲-	2	Pre-Co-BIO125 **and** Co-MIS124
BIO125	Medical Terminology	3	
		13	
Second Semester			
MIS126	Medical Instrument Sterilization II▲+	4	MIS124
MIS127	Medical Instrument Sterilization II/Directed Practice▲+	3	MIS125 **and** Co-MIS126
MIS123	Introduction to Surgical Terminology/Microbiology▲+	3	MIS124
PHL122	Ethics	3	
		13	
Summer			
MIS222	Medical Instrument Sterilization III▲*	2	MIS123 **and** MIS126
MIS223	Medical Instrument Sterilization III/Directed Practice▲*	1	MIS127 **and** Co-MIS222
ENG124	College Composition^	3	ENG011 **or** Proficiency
		6	
	TOTAL CREDITS	**32**	

^Based on SSC placement scores

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

▲+ 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.

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.

ASSOCIATE OF APPLIED SCIENCE

EMERGENCY MEDICAL SERVICES

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.

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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+▲-	2	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	
EMS224	Paramedic IV+▲-	4	EMS222 **and** Co-EMS225	
EMS225	Paramedic IV Clinical+▲-	1	EMS222 **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		
BIO101	Introduction to Anatomy and Physiology^+	3	IDS102 **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH125	College Algebra^	4	*Check for prerequisites*	
PHL122	Ethics	3		
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
BIO125	Medical Terminology	3		
	Total	**30**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
+Minimum grade of "B" required.
#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.

1718 Catalog Effective Summer 2017	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.

Summer		**Credit Hours**	**Pre and Co-requisites**
SSC101	Student Success Seminar^^	1	*Take first semester*
EMS121	Emergency Medical Technician+#	7	
BIO101	Introduction to Anatomy and Physiology^+	3	IDS102 **or** Proficiency
		11	
First Semester			
EMS122	Paramedic I+▲-	9	BIO101 **and** EMS121 **and** Co-EMS124
EMS124	Paramedic I Clinical+▲-	2	BIO101 **and** EMS121 **and** Co-EMS122
FST224	Legal Aspects of Fire Service	2	
		13	
Second Semester			
EMS221	Paramedic II+▲+	9	EMS122 **and** EMS124 **and** Co-EMS223
EMS223	Paramedic II Clinical+▲+	2	EMS122 **and** EMS124 **and** Co-EMS221
ENG124	College Composition ^	3	ENG011 **or** Proficiency
		14	
Summer			
EMS222	Paramedic III+▲*	3	EMS221 **and** EMS223
		3	
Third Semester			
EMS224	Paramedic IV+▲-	4	EMS222 **and** Co-EMS225
EMS225	Paramedic IV Clinical+▲-	1	EMS222 **and** Co-EMS224
MTH125	College Algebra^	4	*Check for prerequisites*
BIO125	Medical Terminology	3	
		12	
Fourth Semester			
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
PHL122	Ethics	3	
		9	
	Total Credits	**62**	

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
+Minimum grade of "B" required.
#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.

ASSOCIATE OF APPLIED SCIENCE

EMERGENCY FIRE SERVICES

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.

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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+	2	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	
EMS224	Paramedic IV+	**4**	EMS222 **and** Co-EMS225	
EMS225	Paramedic IV Clinical+	1	EMS222 **and** Co-EMS224	
FST228 **or** FST129 and FST230 **or** FST128 and FST 229 and FST 230	Fire Fighter 1 & 2++ **or** Take the Firefighter sequence of courses to obtain Firefighter Level 2 certification (Firefighter 1 and Firefighter 2)++ **or** Take the Firefighter sequence of courses to obtain Firefighter Level 2 certification (Volunteer, Firefighter 1Transition and Firefighter 2)++	11		
	Total	**41**		

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		
BIO101	Introduction to Anatomy and Physiology^+	3	IDS102 **or** Proficiency	
COM122	Interpersonal Communication	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH125	College Algebra^	4	*Check for prerequisites*	
PHL122	Ethics	3		
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
	Total	**30**		
	TOTAL CREDIT HOURS	**71**		

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
+Minimum grade of "B" required.
++Minimum grade of "C" required.
#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.

Contact Fire Program Coordinator for equipment needs.

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.

Summer		Credit Hours	Pre and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
EMS121	Emergency Medical Technician+#	7	
BIO101	Introduction to Anatomy & Physiology^+	3	IDS102 **or** Proficiency
		11	
First Semester			
EMS122	Paramedic I+	9	BIO101 **and** EMS121 **and** Co-EMS124
EMS124	Paramedic I Clinical+	2	BIO101 **and** EMS121 **and** Co-EMS122
		11	
Second Semester			
EMS221	Paramedic II+	9	EMS122 **and** EMS124 **and** Co-EMS223
EMS223	Paramedic II Clinical+	2	EMS122 **and** EMS124 **and** Co-EMS221
ENG124	College Composition^	3	ENG011 **or** Proficiency
		14	
Summer			
EMS222	Paramedic III+	3	EMS221 **and** EMS223
ITD122	Computer Applications for Professionals^	3	IDT100 **or** Proficiency
PSY121	General Psychology^	3	IDS102 **or** Proficiency
		9	
Third Semester			
EMS224	Paramedic IV+	4	EMS222 **and** Co-EMS225
EMS225	Paramedic IV Clinical+	1	EMS222 **and** Co-EMS224
MTH125	College Algebra^	4	*Check for prerequisites*
COM122	Interpersonal Communication	3	
		12	
Fourth Semester			
FST228	Firefighter 1 & 2++	11	
PHL122	Ethics	3	
		14	
	Total Credits	**71**	

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
+Minimum grade of "B" required.
++Minimum grade of "C" required.
#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.

Contact Fire Program Coordinator for equipment needs.

ASSOCIATE OF SCIENCE

DIETETIC 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. 3357:15-13-06.

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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	ENG011 **or** Proficiency	
COM121	Effective Speaking	3		
SOCIAL & BEHAVIORAL SCIENCES:				
PSY121	General Psychology^ **(recommended)** or PSY options	3	IDS102 **or** Proficiency	
SOC121	Sociology^ **(recommended)** or SOC Options	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: 6 credit hours minimum				
	Arts & Humanities elective[1]	3	*Check for prerequisites*	
PHL122	Ethics (required)	3		
SCIENCES & MATHEMATICS				
Natural Sciences:				
BIO 123	Human Structure and Function*	5	BIO101++ **or** Proficiency	
BIO 125	Medical Terminology	3		
Mathematics:				
MTH124 **or** MTH125 **or** MTH105	Statistics^ **or** College Algebra^ Ω **or** Math for Allied Health^	3 **or** 4 **or** 3	*Check for prerequisites*	
	TOTAL	**30-31**		

^Based on SSC placement scores.
*BIO121 and BIO122 can be substituted for BIO123
++Minimum grade of "C" required.
Ω MTH125 College Algebra or MTH124 should only be taken by students planning to transfer to a four-year institution.
PSY Options: PSY122, PSY 123, PSY124, PSY222
SOC Options: SOC122, SOC123, SOC125, SOC126, SOC225, SOC227
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, HIS221, HIS222, SOC225

This coursework is in compliance with the requirements of the Accreditation Council for Education in Nutrition and Dietetics.

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
Concentration Core: All are required				
NTR121	Nutrition for Health	3	IDS101 **or** proficiency	
NTR122	Introduction to Medical Nutrition Therapy	1	NTR121	
DTR122	Life Cycle Nutrition	3	NTR121	
DTR235	Medical Nutrition Therapy I	3	NTR122	
DTR236	Medical Nutrition Therapy II	3	DTR235	
DTR223	Nutrition/MNT Directed Practice	2	Pre-Co-DTR236 **or** Permission	
DTR225	Community Nutrition	3	NTR121	
DTR226	Community Nutrition Directed Practice	2	Pre-Co-DTR225 **or** Permission	
NTR130	Food Operations	3		
NTR130L	Food Operations Lab	1	Pre-Co-NTR130	
DTR228	Dietary Systems	3		
DTR229	Professional Dietetics	1	Permission	
DTR121	Food Science Principles	3	Pre-Co-CHM101	
DTR231	Foodservice Directed Practice	2	NTR130 **and** NTR130L **and** Co-DTR228 **or** Permission	
	TOTAL	**33**		
	TOTAL CREDIT HOURS	**63-64**		

^Based on SSC placement scores.
*BIO121 and BIO122 can be substituted for BIO123
++Minimum grade of "C" required.
Ω MTH125 College Algebra or MTH124 should only be taken by students planning to transfer to a four-year institution.
[1] Arts & Humanities Elective: ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, HIS121, HIS122, HIS221, HIS222, SOC225

This coursework is in compliance with the requirements of the Accreditation Council for Education in Nutrition and Dietetics.

1718 Catalog Effective Fall 2017	DIETETIC TECHNICIAN	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 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- and Co-requisites
SSC101	Student Success Seminar^	1	*Take first semester*
Arts & Humanities Elective#		3	*Check for prerequisites*
DTR121	Food Science Principles	3	Pre-Co-CHM101
NTR130	Food Operations	3	
NTR130L	Food Operations Lab	1	Pre-Co-NTR130
NTR121	Nutrition for Health	3	IDS102 **or** proficiency
		14	
Second Semester			
BIO125	Medical Terminology	3	
BIO123	Principles of Human Structure and Function^	5	BIO101 **or** Proficiency
NTR122	Introduction to Medical Nutrition Therapy	1	NTR121
DTR228	Dietary Systems	3	
DTR231	Foodservice Directed Practice	2	NTR130 **and** NTR130L **and** Co-DTR228
		14	**or** Permission
Summer Semester			
COM121	Effective Speaking	3	
SOC121	Sociology^ **(recommended)**	3	IDS102 **or** Proficiency
	or		
	SOC Options	**6**	
Third Semester			
MTH124	Statistics^ Ω	3	
or	**or**	**or**	*Check for prerequisites*
MTH124	College Algebra^Ω	4	
or	**or**	or	
MTH105	Math for Allied Health^	3	
ENG124	College Composition^	3	ENG011 **or** proficiency
DTR225	Community Nutrition	3	NTR121
DTR235	Medical Nutrition Therapy I	3	NTR122
DTR226	Community Nutrition Directed Practice	2	Pre-Co-DTR225 **or** Permission
		14-15	
Fourth Semester			
PSY121	General Psychology^ **(recommended)**	3	IDS102 **or** proficiency
	or		
	PSY options		
PHL122	Ethics	3	
DTR236	Medical Nutrition Therapy II	3	DTR235
DTR122	Life Cycle Nutrition	3	NTR121
DTR229	Professional Dietetics	1	Permission
DTR223	Nutrition/MNT Directed Practice	2	Pre-Co-DTR236 **or** Permission
		15	
	TOTAL CREDITS	**63-64**	

See footnotes on first page.

This coursework is in compliance with the requirements of the Accreditation Council for Education in Nutrition and Dietetics.

ASSOCIATE OF SCIENCE

DIETARY MANAGER

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.

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Effective Summer 2017

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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	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121	Effective Speaking	3		
SOCIAL & BEHAVIORAL SCIENCES:				
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: 6 credit hours minimum				
ENG233	British Literature: Med to 1785	3	ENG124	
ENG234	British Literature: 1785 to Present	3	ENG124	
HIS121	U.S. History I – to 1877	3		
HIS122	U.S. History II – from 1877	3		
SCIENCES & MATHEMATICS				
Natural Sciences:				
BIO101	Introduction to Anatomy & Physiology^	3	IDS102 **or** Proficiency	
CHM101	Introduction to Chemistry^	4	(MTH093 and MTH094) **or** Proficiency	
Mathematics: 3 credit hours minimum				
MTH105 **or** MTH125 **or** MTH124	Math for Allied Health^ **or** College AlgebraΩ^ **or** StatisticsΩ^	3 **or** 4 **or** 3	*Check for prerequisites*	
	TOTAL	**32/33**		

^Based on SSC placement scores.
^^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.

This coursework is in compliance with the requirements of the Association of Nutrition and Foodservice Professionals.

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		
MAT124	Medical Law and Ethics	3		
DMA135	Food Operations Directed Practice	1	Co-NTR130 **or** Permission	
DMA145	Medical Nutrition Therapy Directed Practice	1	NTR121 **and** Co-NTR122 **or** Permission	
DMA155	Dietary Systems Directed Practice	1	Co-DTR228 **or** Permission	
DTR122	Life Cycle Nutrition	3	NTR121	
DTR121	Food Science Principles	3	Pre-Co-CHM101	
GER121	Introduction to Gerontology	3		
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
	TOTAL	**31**		
	TOTAL CREDIT HOURS	**63/64**		

^Based on SSC placement scores.
^^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.

This coursework is in compliance with the requirements of the Association of Nutrition and Foodservice Professionals.

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1718 Catalog Effective Summer 2017	DIETARY MANAGER	3562

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- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
IDT122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
DMA135	Food Operations Directed Practice	1	Co-NTR130 **or** Permission
NTR121	Nutrition for Health^	3	IDS102 **or** Proficiency
NTR130	Food Operations	3	
		14	
Second Semester			
Arts & Humanities Elective[1]		3	Check for prerequisites
BIO101	Introduction to Anatomy and Physiology^	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	
MTH105	Math for Allied Health^	3	*Check for prerequisites*
	or		
MTH125	College Algebra^	4	
	or		
MTH124	Statistics^	3	
NTR122	Introduction to Medical Nutrition Therapy	1	NTR121
		15/16	
Third Semester			
ENG221	Technical Report Writing	3	ENG124
SOC121	Sociology^	3	IDS102 **or** Proficiency
		6	
Fourth Semester			
BUS121	Business Administration^	3	IDS102 **or** Proficiency
CHM101	Introduction to Chemistry^	3	(MTH093 and MTH094) **or** Proficiency
DTR121	Food Science Principles	3	Pre-Co-CHM101
GER121	Introduction to Gerontology	3	
PSY121	General Psychology^	3	IDS102 **or** Proficiency
		15	
Fifth Semester			
Arts & Humanities Elective[1]		3	*Check for prerequisites*
COM121	Effective Speaking	3	
DTR122	Life Cycle Nutrition	3	NTR121
MAT124	Medical Law & Ethics	3	
		12	
	TOTAL CREDITS	**63/64**	

^Based on SSC placement scores.

^^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.

This coursework is in compliance with the requirements of the Association of Nutrition and Foodservice Professionals.

ONE-YEAR CERTIFICATE

DIETARY MANAGER

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.

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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	
DTR228	Dietary Systems	3		
DMA135	Food Operations Directed Practice	1	Co-NTR130 **or** Permission	
DMA145	MNT Directed Practice	1	Co-NTR122 **or** Permission	
DMA155	Dietary Systems Directed Practice	1	Co-DTR228 **or** Permission	
	TOTAL	**13**		
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	ENG011 **or** Proficiency	
COM121	Effective Speaking	3		
MTH125 **or** MTH105	College Algebra Ω^ **or** Math for Allied Health^	4 **or** 3	*Check for prerequisites*	
NTR121	Nutrition for Health	3	IDS102 **or** Proficiency	
GER121	Introduction to Gerontology	3		
BUS121	Business Administration	3		
	TOTAL	**19-20**		
	TOTAL CREDIT HOURS	**32-33**		

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.
Ω MTH125 College Algebra should only be taken by students planning to transfer to a four-year institution.

This coursework is in compliance with the requirements of the Association of Nutrition and Foodservice Professionals.

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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*
BUS121	Business Administration	3	
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	3	
		14	
Second Semester			
BIO101	Introduction to Anatomy and Physiology	3	IDS102 **or** Proficiency
COM121	Effective Speaking	3	
DMA145	Nutrition Directed Practice	1	Co-NTR122 **or** Permission
DMA155	Dietary Systems Directed Practice	1	Co-DTR228 **or** Permission
DTR228	Dietary Systems	3	
NTR122	Introduction to Medical Nutrition Therapy	1	NTR121
		12	
Third Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH125 **or** MTH105	College Algebra Ω^ **or** Math for Allied Health^	4 **or** 3	*Check for prerequisites*
		6-7	
	TOTAL CREDITS	**32-33**	

^Based on SSC placement scores.

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

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

This coursework is in compliance with the requirements of the Association of Nutrition and Foodservice Professionals.

CAREER ENHANCEMENT CERTIFICATE

GERONTOLOGY

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.

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1006

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.

First Semester		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*******++		3-5	
	TOTAL CREDITS	**11-16**	

++Minimum grade of "C" required.
*****Technical Electives 1: ENG124, FIN123, FIN224, HIT230, OTA223, PSY121, PSY123, SWK230
******Technical Elective 2: ACC132, BIO101, BIO121, BIO122, BIO123, BIO127, FIN222, MAT231

CAREER ENHANCEMENT CERTIFICATE

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: 15-13-06.

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1007

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		Credit Hours	Pre- and Co-requisites
SWK125	Substance Abuse++^	3	IDS102 **or** Proficiency
SWK225	Victimization and Crisis Intervention	3	ENG124
		6	
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
		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++	1	SWK125
		7	
	TOTAL CREDITS	**20**	

^Based on SSC placement scores.
++Minimum grade of "C" required.

CAREER ENHANCEMENT CERTIFICATE

POLICE SCIENCE

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.

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1304

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^++	12	IDS102 **or** Proficiency
		12	
Second Semester			
CJS240	Law Enforcement Academy II^++	12	CJS140
		12	
	TOTAL CREDITS	**24**	

^Based upon SSC placement score
++Minimum grade of "C" required.

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.

CAREER ENHANCEMENT CERTIFICATE

OPHTHALMIC ASSISTANT

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.

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3366

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**		
NON-TECH Course Number	**Course Title**	**Credits**	**Pre- and Co-Requisites**	**Completed Sem./Year**
	Total	**0**		
	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	1	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	2	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

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.

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3367

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 **or** *Program Coordinator approval*	
OPH202	Ophthalmic Procedures IV	4	OPH200	
	Total	**8**		
NON-TECH Course Number	**Course Title**	**Credits**	**Pre- and Co-Requisites**	**Completed Sem./Year**
	Total	**0**		
	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		Credit Hours	Pre- and Co-requisites
OPH200	Ophthalmic Procedures III	4	OPH103 **or** *Program Coordinator approval*
		4	
Second Semester			
OPH202	Ophthalmic Procedures IV	4	OPH200
		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

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.

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3403

Health and Public Services Division *Allied Dental Health Professions Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DAS121	Dental Assisting Techniques I**	3		
DAS122	Dental Assisting Radiography	2		
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 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		Credits	Pre- and Co-requisites
DAS121	Dental Assisting Techniques I**	3	
DAS122	Dental Assisting Radiography	2	
DAS123	Dental Assisting Techniques II	3	DAS121
DAS124	Dental Assisting Materials	2	
DAS128	Introduction to Dental Terminology and Basic Anatomy	2	
		12	
Second Semester			
DAS125	Dental Assisting Specialty#	3	DAS 123
	TOTAL CREDITS	**15**	

**Course may be taken in conjunction with other technical courses, but must be taken in the first semester of technical course work.
#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.

Minimum grade of "C" in all technical courses is required.

CAREER ENHANCEMENT CERTIFICATE

EXPANDED FUNCTIONS DENTAL AUXILIARY

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.

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3423

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		
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	3	Co-DAS225 **and** Co-DAS226	
DAS228	Directed Clinical Practice	5	DAS225 **and** DAS226 **and** DAS227	
	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
DAS128	Introduction to Dental Terminology and Basic Anatomy*	2	
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	3	Co-DAS225 **and** Co-DAS226
		9	
Second Semester			
DAS228	Directed Clinical Practice	5	DAS225 **and** DAS226 **and** DAS227
		5	
	TOTAL CREDITS	**14**	

***Students demonstrating a minimum of one year of consecutive chair side experience or students who have successfully completed the first year of dental hygiene coursework may be exempt from taking DAS128.**

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. 3357:15-13-06.

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3455

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	
PTA226	Functional Anatomy++	4	BIO123 **or** BIO122	
	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.

		Credit Hours	Pre- and Co-requisites
First Semester			
BIO121	Anatomy and Physiology I (lab)^⅄++	4	BIO101 **or** Proficiency
MAS121	Massage Therapy I+	6	
		10	
Second Semester			
BIO122	Anatomy and Physiology II (lab)++	4	BIO121 **or** BIO123
NTR121	Nutrition for Health^++	3	IDS102 **or** Proficiency
		7	
Third Semester			
MAS231	Sports Massage+	2	MAS121
PTA226	Functional Anatomy++	4	BIO123 **or** BIO122
		6	
	TOTAL CREDITS	**23**	

^Based on SSC placement scores.
+Minimum grade of "B" required.
++Minimum grade of "C" required.
⅄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.

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.

CAREER ENHANCEMENT CERTIFICATE

MASSAGE TRANSITION TO LICENSURE

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.

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Health and Public Services Division *Therapy & Wellness Programs Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) **and** Co-MAS226	
MAS230 **or** MAS226	Limited Branch Massage Therapy Review **or** Massage Therapy V	3 **or** 3	None MAS225 **and** MAS124	
MAS228	Professional Practice and Evaluation	1	MAS122	
HTD229	Massage Therapy Independent Study	1		
MAS122	Massage Therapy II	2	MAS121 **and** MAS123	
BIO123	Principles of Human Structure and Function	5	BIO101 **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
MAS122	Massage Therapy II	2	MAS121 **and** MAS123
BIO123	Principles of Human Structure and Function	5	BIO101 **or** Proficiency
		7	
Second Semester			
MAS223	Massage Therapy Review	3	(BIO122 or BIO123) **and** Co-MAS226
MAS230	Limited Branch Massage Therapy Review	3	None
or	**or**	**or**	
MAS226	Massage Therapy V	3	MAS225 **and** MAS124
MAS228	Professional Practice and Evaluation	1	MAS122
HTD229	Massage Therapy Independent Study	1	
		8	
	TOTAL CREDITS	**15**	

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.

CAREER ENHANCEMENT CERTIFICATE

MEDICAL INSTRUMENT STERILIZATION TECHNICIAN CERTIFICATE

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.

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3504

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 **or** Co-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▲-	4	BIO101 **or** Co-BIO101 *Advisor approval required*
		7	
Second Semester			
MIS126	Medical Instrument Sterilization II▲+	4	MIS124
MIS123	Introduction to Surgical Terminology/Microbiology▲+	3	MIS124
		7	
Third Semester			
MIS222	Medical Instrument Sterilization III▲*	2	MIS123 **and** MIS126
		2	
	TOTAL CREDITS	**16**	

^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

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.

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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 **or** 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	*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 Hours	Pre- and Co-requisites
DMA135	Food Operations Directed Practice	1	*Permission*
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
NTR121	Nutrition for Health	3	IDS102 **or** Proficiency
NTR130	Food Operations	3	
		10	
Second Semester			
DMA145	MNT Directed Practice	1	*Permission*
DMA155	Dietary Systems Directed Practice	1	*Permission*
DTR228	Dietary Systems	3	
NTR122	Introduction to MNT	1	NTR121
		6	
	TOTAL CREDITS	**16**	

^Based upon SSC placement score.

This coursework is in compliance with the requirements of the Association of Nutrition and Food Service Professionals.

INFORMATION TECHNOLOGY

Stark State COLLEGE

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

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. 3357:15-13-06.

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Business and Information Technology Division *Administrative Services & Office Applications 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	AOT121 **and** (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	
GLS121	Introduction to Law and the Legal System	3	IDS102 **or** Proficiency	
JCR131	Legal Terminology	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^	3	IDS102 **or** Proficiency	
AOT232	AOT Practicum+++▲+	2	AOT227 **or** AOT237	
ACC121	Principles of Accounting	3		
GLS123	Government and Legal Ethics	3	IDS102 **or** Proficiency	
BUS121 **or** PSC221	Business Administration^ **or** State and Local Government	3	IDS102 **or** Proficiency **or** PSC121	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^	3	(MTH091 and MTH092) **or** Proficiency **or** MTH093 **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOC225	Cultural Diversity	3		
PSC121	Political Science	3		
COM121	Effective Speaking	3		
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency	
	Total	**31**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement score
^^To promote student success, this course should be taken in the first semester
+++Legal Assisting should complete AOT237; AOP students should take AOT227
▲+ Spring only courses. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ENG124	College Composition^	3	ENG011 **or** Proficiency
AOT130	Editing, Proofreading and Language Skills	3	
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency
GLS121	Introduction to Law and the Legal System	3	IDS102 **or** Proficiency
JCR131	Legal Terminology	3	
		16	
Second Semester			
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)
AOT129	Keyboarding Skill Building	1	AOT121
AOT239	Legal Transcription	3	AOT130 **and** pre-co-AOT129
AOT224	Legal Office Procedures	3	AOT121 **and** AOT130
AOT132	Records Management^	3	IDS102 **or** Proficiency
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^	3	(MTH091 and MTH092) **or** Proficiency **or** MTH093 **or** Proficiency
		16	
Third Semester			
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
AOT237	Legal Office Applications	3	AOT239 **and** AOT224
PSC121	Political Science	3	
SOC225	Cultural Diversity	3	
ACC121	Principles of Accounting	3	
		15	
Fourth Semester			
COM121	Effective Speaking	3	
BUS121 **or** PSC221	Business Administration^ **or** State and Local Government	3	IDS102 **or** Proficiency **or** PSC121
AOT232	AOT Practicum+++▲+	2	AOT227 **or** AOT237
AOT235	Legal Research and Writing	3	
GLS123	Government and Legal Ethics	3	IDS102 **or** Proficiency
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency
		15	
	TOTAL CREDITS	**62**	

^Based on SSC placement score

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

+++Legal Assisting should complete AOT237; AOP students should take AOT227

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

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. 3357:15-13-06.

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2106

Business and Information Technology Division *Administrative Services & Office Applications Department*

TECHNICAL 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		
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	
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)	
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*	
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^	3	(MTH091 and MTH092) **or** Proficiency **or** MTH093 or Proficiency	
GLS123	Government and Legal Ethics	3	IDS102 **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOC225	Cultural Diversity	3		
	Total	**13**		
	TOTAL CREDIT HOURS	**35**		

^Based on SSC placement score
^^To promote student success, this course should be taken in the first semester

1718 Catalog Effective Summer 2017	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^	3	ENG011 **or** Proficiency
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency
AOT130	Editing, Proofreading and Language Skills	3	
GLS123	Government and Legal Ethics	3	IDS102 or Proficiency
JCR131	Legal Terminology	3	
		16	
Second Semester			
AOT224	Legal Office Procedures	3	AOT121 **and** AOT130
AOT129	Keyboarding Skill Building	1	AOT121
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 **or** Proficiency)
MTH108 **or** MTH124	Explorations in Modern Mathematics^ **or** Statistics^	3	(MTH091 and MTH092) **or** Proficiency **or** MTH093 **or** Proficiency
AOT239	Legal Transcription	3	AOT130 **and** pre-co-AOT129
		13	
Third Semester (Summer)			
AOT237	Legal Office Applications	3	AOT239 **and** AOT224
SOC225	Cultural Diversity	3	
		6	
	TOTAL CREDITS	**35**	

^Based on SSC placement score

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

ASSOCIATE OF APPLIED BUSINESS

ADMINISTRATIVE OFFICE 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. 3357:15-13-06.

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2120

Business and Information Technology Division *Administrative Services & Office Applications Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency	
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency	
IMT122	Graphic Arts Design	3		
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency	
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)	
AOT128	Desktop Publishing – Microsoft Publisher▲+	3	ITD122 **and** IMT122	
AOT129	Keyboarding Skill Building	1	AOT121	
AOT130	Editing, Proofreading and Language Skills	3		
AOT134	Form Design Essentials▲-	1		
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency	
AOT236	Database Applications – Microsoft Access^▲+	3	ITD100 **or** Proficiency	
ACC121	Principles of Accounting	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*	
AOT132	Records Management^	3	IDS102 **or** Proficiency	
AOT227	Administrative Procedures and Systems▲-	3	ITD122 **and** AOT130 **and** (AOT121 or AOT129)	
AOT232	AOT Practicum+++▲+	2	AOT227 **or** AOT237	
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
ACC130	Business Law and Ethics	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOC225	Cultural Diversity	3		
PSY121 **or** SOC121	General Psychology^ **or** Sociology^	3 **or** 3	IDS102 **or** Proficiency **or** IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
	Total	**30**		
	TOTAL CREDIT HOURS	**60**		

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
+++Legal Assisting should complete AOT237; AOP students should take AOT227
✹Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122
▲- Fall only courses. Please see your academic advisor for availability.
▲+Spring only courses. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ENG124	College Composition^	3	ENG011 **or** Proficiency
AOT130	Editing, Proofreading, and Language Skills	3	
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency
IMT122	Graphic Arts Design	3	
AOT134	Form Design Essentials▲-	1	
		17	
Second Semester			
BUS121	Business Administration^	3	IDS102 **or** Proficiency
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)
AOT129	Keyboarding Skill Building	1	AOT121
AOT128	Desktop Publishing – Microsoft Publisher▲+	3	ITD122 **and** IMT122
AOT132	Records Management^	3	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		16	
Third Semester			
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency
AOT227	Administrative Procedures and Systems▲-	3	ITD122 **and** AOT130 **and** (AOT121 or AOT129)
ACC130	Business Law and Ethics	3	
SOC225	Cultural Diversity	3	
PSY121	General Psychology^	3	IDS102 **or** Proficiency
or	**or**	**or**	**or**
SOC121	Sociology^	3	IDS102 **or** Proficiency
		15	
Fourth Semester			
ACC121	Principles of Accounting	3	
COM121	Effective Speaking	3	
AOT232	AOT Practicum+++▲+	2	AOT227 **or** AOT237
AOT236	Database Applications – Microsoft Access^▲+	3	ITD100 **or** Proficiency
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency
		12	
	TOTAL CREDITS	**60**	

^Based on SSC placement score.

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

+++Legal Assisting should complete AOT237; AOP students should take AOT227

✹Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122

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

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

ONE-YEAR CERTIFICATE

ADMINISTRATIVE OFFICE 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. 3357:15-13-06.

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2122

Business and Information Technology Division *Administrative Services & Office Applications Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency	
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency	
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)	
AOT130	Editing, Proofreading, and Language Skills	3		
AOT132	Records Management^	3	IDS102 **or** Proficiency	
AOT134	Form Design Essentials▲-	1		
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency	
AOT227	Administrative Procedures and Systems▲-	3	ITD122 **and** AOT130 **and** (AOT121 or AOT129)	
	Total	**22**		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	*Take first semester*	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOC225	Cultural Diversity	3		
PSY121 **or** SOC121	General Psychology^ **or** Sociology^	3 **or** 3	IDS102 **or** Proficiency **or** IDS102 **or** Proficiency	
	Total	**13**		
	TOTAL CREDIT HOURS	**35**		

^Based on 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
▲- Fall only courses. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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*
ENG124	College Composition^	3	ENG011 **or** Proficiency
SOC225	Cultural Diversity	3	
AOT130	Editing, Proofreading, and Language Skills	3	
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency
		14	
Second Semester (Summer)			
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency
		6	
Third Semester			
AOT132	Records Management^	3	IDS102 **or** Proficiency
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)
AOT134	Form Design Essentials▲-	1	
AOT227	Administrative Procedures and Systems▲-	3	ITD122 **and** AOT130 **and** (AOT121 or AOT129)
PSY121	General Psychology^	3	IDS102 **or** Proficiency
or	**or**	**or**	**or**
SOC121	Sociology^	3	IDS102 **or** Proficiency
		15	
	TOTAL CREDITS	**35**	

^Based on 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

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

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. 3357:15-13-06.

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2123

Business and Information Technology Division *Administrative Services & Office Applications 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	AOT121 **and** (ITD100 or Proficiency)	
AOT130	Editing, Proofreading and Language Skills	3		
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency	
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency	
ACC121	Principles of Accounting	3		
ACC227	Payroll Accounting	3	ACC121 **or** ACC132	
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)	
MGT121	Principles of Management	3	BUS121 **or** ENT120	
MGT221	Supervision	3	MGT121	
	Total	**30**		

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	
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
ACC130	Business Law and Ethics	3		
AOT227	Administrative Procedures and Systems^▲-	3	ITD122 **and** AOT130 **and** (AOT121 or AOT129)	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOC225	Cultural Diversity	3		
PSY121 **or** SOC121	General Psychology^ **or** Sociology^	3 **or** 3	IDS102 **or** Proficiency **or** IDS102 **or** Proficiency	
COM121	Effective Speaking	3		
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency	
	Total	**31**		
	TOTAL CREDIT HOURS	**61**		

^Based on 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
+++Legal Assisting should complete AOT237; AOP students should take AOT227
▲- Fall only courses. Please see your academic advisor for availability.
▲+ Spring only courses. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	ADMINISTRATIVE OFFICE PROFESSIONAL – MANAGEMENT MAJOR	2123

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	ENG011 **or** Proficiency
AOT130	Editing, Proofreading and Language Skills	3	
AOT121	Keyboarding/Formatting	3	AOT101 or Proficiency
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency
BUS121	Business Administration^	3	IDS102 **or** Proficiency
		16	
Second Semester			
ACC121	Principles of Accounting	3	
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)
MGT121	Principles of Management	3	BUS121 **or** ENT120
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		13	
Third Semester			
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency
AOT227	Administrative Procedures and Systems^▲-	3	ITD122 **and** AOT130 **and** (AOT121 or AOT129)
PSY121	General Psychology^	3	IDS102 **or** Proficiency
or	**or**	**or**	**or**
SOC121	Sociology^	3	IDS102 **or** Proficiency
MGT221	Supervision	3	MGT121
SOC225	Cultural Diversity	3	
ACC227	Payroll Accounting	3	ACC121 **or** ACC132
		18	
Fourth Semester			
ACC130	Business Law and Ethics	3	
COM121	Effective Speaking	3	
AOT132	Records Management^	3	IDS102 **or** Proficiency
AOT232	AOT Practicum+++▲+	2	AOT227 **or** AOT237
ACC229	Computerized Accounting Applications	3	(AOT226 or ITD122) **and** (ACC121 or ACC132)
		14	
	TOTAL CREDITS	**61**	

^Based on 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

+++Legal Assisting should complete AOT237; AOP students should take AOT227

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

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

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

2124

Business and Information Technology Division *Administrative Services & Office Applications Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting	3	AOT101 or Proficiency	
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency	
ACC121	Principles of Accounting	3		
IMT122	Graphic Arts Design	3		
AOT128	Desktop Publishing – Microsoft Publisher▲+	3	ITD122 **and** IMT122	
AOT130	Editing, Proofreading, and Language Skills	3		
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)	
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency	
AOT236	Database Applications – Microsoft Access^▲+	3	ITD100 **or** Proficiency	
AOT232	AOT Practicum+++▲+	2	AOT227 **or** AOT237	
AOT240	Virtual Assistant Fundamentals▲-	1	ITD122 **and** AOT130 **and** AOT121	
	Total	**30**		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	*Take first semester*	
BUS121	Business Administration^	3	IDS102 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
AOT227	Administrative Procedures and Systems▲-	3	ITD122 **and** AOT130 **and** (AOT121 or AOT129)	
ACC130	Business Law and Ethics	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
SOC225	Cultural Diversity	3		
PSY121 **or** SOC121	General Psychology^ **or** Sociology^	3 **or** 3	IDS102 **or** Proficiency **or** IDS102 **or** Proficiency	
COM122	Interpersonal Communication	3		
ENT120	Entrepreneurship^	3	IDS102 **or** Proficiency	
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency	
AOT134	Form Design Essentials▲-	1		
	Total	**30**		
	TOTAL CREDIT HOURS	**60**		

^Based on SSC placement score
^^To promote student success, this course should be taken in the first semester
+++Legal Assisting should complete AOT237; AOP students should take AOT227
✹Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122
▲- Fall only courses. Please see your academic advisor for availability.
▲+ Spring only courses. Please see your academic advisor for availability.

Revised 2/2017

1718 Catalog Effective Summer 2017	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.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ENG124	College Composition^	3	ENG011 **or** Proficiency
AOT130	Editing, Proofreading and Language Skills	3	
AOT121	Keyboarding/Formatting	3	AOT101 or Proficiency
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency
IMT122	Graphic Arts Design	3	
AOT134	Form Design Essentials▲-	1	
		17	
Second Semester			
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)
ACC121	Principles of Accounting	3	
AOT128	Desktop Publishing – Microsoft Publisher▲+	3	ITD122 **and** IMT122
ENT120	Entrepreneurship^	3	IDS102 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		15	
Third Semester			
BUS121	Business Administration^	3	IDS102 **or** Proficiency
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency
AOT227	Administrative Procedures and Systems▲-	3	ITD122 **and** AOT130 **and** (AOT121 or AOT129)
AOT240	Virtual Assistant Fundamentals▲-	1	ITD122 **and** AOT130 **and** AOT121
ACC130	Business Law and Ethics	3	
PSY121	General Psychology^	3	IDS102 **or** Proficiency
or	**or**	**or**	**or**
SOC121	Sociology^	3	IDS102 **or** Proficiency
		16	
Fourth Semester			
SOC225	Cultural Diversity	3	
COM122	Interpersonal Communications	3	
AOT232	AOT Practicum+++▲+	2	AOT227 **or** AOT237
AOT236	Database Applications – Microsoft Access^▲+	3	ITD100 **or** Proficiency
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency
		12	
	TOTAL CREDITS	**60**	

^Based on SSC placement score

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

+++Legal Assisting should complete AOT237; AOP students should take AOT227

✹Successful completion of ITD102, ITD104, ITD105, and ITD106 is equivalent to and may be substituted for ITD122

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

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

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. 3357:15-13-06.

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2128

Business and Information Technology Division

Administrative Services & Office Applications Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting	3		
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	Adobe Captivate	1		
TDS222	Web-based Learning	3	TDS124	
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		
COM226	Organizational Communication	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD108	Microsoft Outlook^	1	IDS102 **or** Proficiency	
ITD123	MAC Concepts	1		
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency	
PHL122	Ethics	3		
PSY124	Industrial/Organizational Psychology	3		
SOC121	Sociology	3	IDS102 **or** Proficiency	
	Total	**30**		
	TOTAL CREDIT HOURS	**60**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester

1718 Catalog Effective Summer 2017	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	
COM226	Organizational Communication	3	
TDS123	Team Building Dynamics	3	
		12	
Second Semester			
ITD109	Presentation Technologies for the Trainer	1	ITD100 **or** Proficiency
AOT121	Keyboarding/Formatting	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
AOT130	Editing, Proofreading, and Language Skills	3	
BUS121	Business Administration	3	IDS102 **or** Proficiency
TDS124	Instructional Design for the Trainer	3	TDS121
		16	
Third Semester			
TDS220	Measuring and Evaluating Training	3	pre-co-TDS122
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
COM121	Effective Speaking	3	
TDS221	Adobe Captivate	1	
SOC121	Sociology	3	IDS102 **or** Proficiency
TDS222	Web-based Learning	3	TDS124
		16	
Fourth Semester			
ENG221	Technical Report Writing	3	ENG124
MTH124	Statistics^	3	MTH093 **or** co-MTH024 **or** Proficiency
PSY124	Industrial/Organizational Psychology	3	
PHL122	Ethics	3	
ITD123	MAC Concepts	1	
TDS223	ADDIE Capstone Course	3	TDS124
		16	
	TOTAL CREDITS	**60**	

^Based upon SSC placement score

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

ASSOCIATE OF APPLIED BUSINESS

JUDICIAL COURT REPORTING 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. 3357:15-13-06.

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Business and Information Technology Division *Administrative Services & Office Applications 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 **or** SSC101	Clark **or** Stark	College Success **or** Student Success Seminar^^	1	*Take first semester*	
AOT121	Stark	Keyboarding/Formatting	3	AOT101 or Proficiency	
ENG1111	Clark	English I	3	CPE 0300 B↑ or CPE 0400 C↑; Pre/Co-req; CPE 0200	
ITD122	Stark	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency	
AOT130	Stark	Editing, Proofreading and Language Skills	3		
JCR131	Stark	Legal Terminology	3		
BIO125	Stark	Medical Terminology	3		
ENG2211	Clark	Business Communication	3	ENG1111 **or** OAD1105	
PHL122	Stark	Ethics	3		
MTH1060	Clark	Business Math	3		
	Clark	Social/Behavioral Science Elective	3		
		Total	**31**		
		TOTAL CREDIT HOURS	**65**		

^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)

Revised 2/2017

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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.

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
AOT130	**Stark**	Editing, Proofreading and Language Skills	3	
JCR1001	**Clark**	Realtime Theory I (8-week)	3	
JCR1002	**Stark**	Realtime Theory II (8-week)	3	JCR1001
			16	
Second Semester				
JCR1003	**Clark**	Realtime Theory Application (8-week)	3	JCR1002
JCR1101	**Clark**	Skill Building I (8 week)	3	JCR1003
JCR131	**Stark**	Legal Terminology	3	
ITD122	**Stark**	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency
MTH1060	**Clark**	Business Math	3	
			15	
Summer Semester				
JCR1102	**Stark**	Skill Building II (8 week)	3	JCR1101
BIO125	**Stark**	Medical Terminology	3	
			6	
Third Semester				
JCR2103	**Clark**	Skill Building III (8 week)	3	JCR1102
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	3	
			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	3	
			13	
		TOTAL CREDITS	**65**	

^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)

ASSOCIATE OF APPLIED BUSINESS

COMPUTER 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. 3357:15-13-06.

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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
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	
CIS223	IT Project Management▲	3	CIS126 **and** CPD121	
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121	
CPD222	Microsoft SQL Server Database▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222	
CPD225	Data Mining and Data Warehousing▲	3	CPD121	
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** CPD121	
	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 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **or** IDS102 **or** Proficiency	
CIS126	Fundamentals of Information Systems▲	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	ENG011 **or** Proficiency	
ITD105	Computer Applications – Excel^	1	ITD100 **or** Proficiency	
ITD106	Computer Applications - Access^	1	ITD100 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Select one (1) Social Science Elective from the list below[2]	3	*Check for prerequisites*	
	Total	**30**		
	TOTAL CREDIT HOURS	**60**		

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

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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*
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)
ITD105	Computer Applications - Excel^	1	ITD100 **or** Proficiency
ITD106	Computer Applications - Access^	1	ITD100 **or** Proficiency
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		12	
Second Semester			
CIS126	Fundamentals of Information Systems▲	3	IDS102 **or** Proficiency
CIS223	IT Project Management▲	3	CIS126 **and** CPD121
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 or MTH092) **or** Proficiency
		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
Social Science Elective[2]		3	*Check for prerequisites*
		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^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
CPD222	Microsoft SQL Server Database▲	3	CPD121
CPD225	Data Mining and Data Warehousing▲	3	CPD121
		15	
Fourth Semester			
CIS222	Data Acquisition and Analysis▲	3	CIS125
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222
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** CPD121
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		12	
	TOTAL CREDITS	**60**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

ASSOCIATE OF APPLIED BUSINESS

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. 3357:15-13-06.

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5011

Business and Information Technology Division — *Computer Science and Information Systems Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CIS221	Generating Reports for Decision Making▲	3	CPD121	
CIS223	IT Project Management▲	3	CIS126 **and** CPD121	
CIS224	Advanced Help Desk▲	3	CIS121	
CIS280	Help Desk Capstone▲	3	CIS224	
CPD222	Microsoft SQL Server Database▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222	
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** CPD121	
NET120	PC Upgrading and Maintenance	3		
NET121	Introduction to Computer Networking	3		
NET131	Microsoft Client Operating System	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 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **or** IDS102 **or** Proficiency	
CIS121	Help Desk and Computer Support Concepts^▲	3	IDS102 **or** Proficiency	
CIS126	Fundamentals of Information Systems▲	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	ENG011 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below [1]	3	*Check for prerequisites*	
	Select one (1) Social Science Elective from the list below [2]	3	*Check for prerequisites*	
	Total	**31**		
	TOTAL CREDIT HOURS	**61**		

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2] Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

1718 Catalog Effective Summer 2017	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		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
CIS126	Fundamentals of Information Systems▲	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)
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		16	
Second Semester			
CIS223	IT Project Management▲	3	CIS126 **and** CPD121
CIS224	Advanced Help Desk▲	3	CIS121
NET120	PC Upgrading and Maintenance	3	
NET121	Introduction to Computer Networking	3	
		12	
Summer Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
		6	
Third Semester			
CIS221	Generating Reports for Decision Making▲	3	CPD121
CIS280	Help Desk Capstone▲	3	CIS224
CPD222	Microsoft SQL Server Database▲	3	CPD121
NET131	Microsoft Client Operating System	3	NET120 **and** NET121
		12	
Fourth Semester			
Arts & Humanities Elective[1]		3	*Check for prerequisites*
Social Science Elective[2]		3	*Check for prerequisites*
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222
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 Developing Solutions	3	(CIS221 or CSE229 or CSE233 or CSE231 or WDD221 or CSE227 or WDD224 or WDD222 or WDD226) **and** CPD121
		15	
	TOTAL CREDITS	**61**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2] Social Science Electives: PSC121, PSY121, , PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

ONE-YEAR CERTIFICATE

DATA ANALYTICS

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.

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5014

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	
CIS223	IT Project Management▲	3	CIS126 **and** CPD121	
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121	
CPD222	Microsoft SQL Server Database▲	3	CPD121	
CPD225	Data Mining and Data Warehousing▲	3	CPD121	
	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) **and** (ITD100 or Proficiency)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Total	**10**		
	TOTAL CREDIT HOURS	**31**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
▲Course offerings vary by semester. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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) **and** (ITD100 or Proficiency)
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		10	
First Semester			
CIS125	Data Analysis and Decision Making▲	3	CPD121
CIS223	IT Project Management▲	3	CIS126 **and** CPD121
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121
		9	
Second Semester			
CIS221	Generating Reports for Decision Making▲	3	CPD121
CIS222	Data Acquisition and Analysis▲	3	CIS125
CPD222	Microsoft SQL Server Database▲	3	CPD121
CPD225	Data Mining and Data Warehousing▲	3	CPD121
		12	
	TOTAL CREDITS	**31**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

ONE-YEAR CERTIFICATE

COMPUTER MAINTENANCE & DESKTOP 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. 3357:15-13-06.

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5026

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▲	3	IDS102 or Proficiency	
CIS223	IT Project Management▲	3	CIS126 and CPD121	
CIS224	Advanced Help Desk▲	3	CIS121	
CPD222	Microsoft SQL Server Database▲	3	CPD121	
NET120	PC Upgrading and Maintenance	3		
NET121	Introduction to Computer Networking	3		
NET131	Microsoft Client Operating System	3	NET 120 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	(MTH091 and MTH092) **or** Proficiency	
	Total	**10**		
	TOTAL CREDIT HOURS	**31**		

^Based on SSC placement score.
^^To promote student success, this course should be taken in the first semester.
▲Course offerings vary by semester. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	ONE-YEAR CERTIFICATE COMPUTER MAINTENANCE & DESKTOP SUPPORT TECHNICIAN	5026

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	(MTH091 and MTH092)+ **or** Proficiency
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ID100 or Proficiency)
		7	
Second Semester			
CIS121	Help Desk and Customer Support Concepts^▲	3	IDS102 **or** Proficiency
CIS126	Fundamentals of Information Systems▲	3	IDS102 or Proficiency
NET120	PC Upgrading and Maintenance	3	
NET121	Introduction to Computer Networking	3	
		12	
Third Semester			
CIS223	IT Project Management ▲	3	CIS126 and CPD121
CIS224	Advanced Help Desk ▲	3	CIS121
CPD222	Microsoft SQL Server Database▲	3	CPD121
NET131	Microsoft Client Operating Systems▲	3	NET120 and NET121
		12	
	TOTAL CREDITS	**31**	

^Based on SSC placement score.

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

ASSOCIATE OF APPLIED BUSINESS

WEB DESIGN AND DEVELOPMENT

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.

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5100

Business and Information Technology Division — *Computer Science and Information Systems Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD222	Microsoft SQL Server Database▲	3	CPD121	
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** CPD121	
WDD122	Web Graphics Design▲	3	WDD121	
WDD221	Web Development with JavaScript and AJAX▲	3	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	Advanced Active Server Page Development▲	3	WDD224	
WDD226	Web Development with PHP and MySQL▲	3	CSE122 **and** WDD121	
WDD227	Advanced Web Development with PHP and MySQL▲	3	WDD226	
WDD229	Advanced Web Design▲	3	WDD122	
	Total	**33**		

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	
COM121 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **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)	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
WDD228	Search Engine Optimization▲	3	WDD121	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Select one (1) Social Science Elective from the list below[2]	3	*Check for prerequisites*	
	Total	**31**		
	TOTAL CREDIT HOURS	**64**		

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

1718 Catalog Effective Summer 2017	WEB DESIGN AND DEVELOPMENT	5100

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*
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	ENG011 **or** Proficiency
CIS126	Fundamentals of Information Systems▲	3	IDS102 or Proficiency
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		16	
Second Semester			
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
Social Sciences Elective[2]		3	*Check for prerequisites*
WDD221	Web Development with JavaScript and AJAX▲	3	WDD121
WDD222	Advanced Cascading Style Sheets▲	3	WDD121
WDD224	Active Server Page Development▲	3	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 Elective[1]		3	*Check for prerequisites*
		6	
Third Semester			
CPD222	Microsoft SQL Server Database▲	3	CPD121
WDD122	Web Graphics Design▲	3	WDD121
WDD225	Advanced Active Server Page Development▲	3	WDD224
WDD226	Web Development with PHP and MySQL▲	3	CSE122 **and** WDD121
WDD228	Search Engine Optimization▲	3	WDD121
		15	
Fourth Semester			
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** CPD121
WDD223	Content Management System Design and Development▲	3	CPD121 **and** WDD121
WDD227	Advanced Web Development with PHP and MySQL▲	3	WDD226
WDD229	Advanced Web Design▲	3	WDD122
		12	
	TOTAL CREDITS	**64**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

ONE-YEAR CERTIFICATE

WEB DESIGN

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.

1718 Catalog
Effective Summer 2017

5125

Business and Information Technology Division — *Computer Science and Information Systems Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD222	Microsoft SQL Server Database▲	3	CPD121	
WDD122	Web Graphics Design▲	3	WDD121	
WDD223	Content Management Systems Design and Development▲	3	CPD121 **and** WDD121	
WDD221	Web Development with JavaScript and AJAX▲	3	WDD121	
WDD222	Advanced Cascading Style Sheets▲	3	WDD121	
WDD228	Search Engine Optimization▲	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	(MTH091 and MTH092) **or** Proficiency	
WDD121	Internet/Intranet Design and Development ^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Total	**10**		
	TOTAL CREDIT HOURS	**31**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
▲Course offerings vary by semester. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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*
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		7	
Second Semester			
CPD121	Data Modeling and Database Design	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
WDD122	Web Graphics Design▲	3	WDD121
WDD223	Content Management Systems Design and Development▲	3	CPD121 **and** WDD121
WDD228	Search Engine Optimization▲	3	WDD121
		12	
Third Semester			
CPD222	Microsoft SQL Server Database▲	3	CPD121
WDD221	Web Development with JavaScript and AJAX▲	3	WDD121
WDD222	Advanced Cascading Style Sheets▲	3	WDD121
WDD229	Advanced Web Design▲	3	WDD122
		12	
	TOTAL CREDITS	**31**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

ASSOCIATE OF APPLIED BUSINESS

COMPUTER PROGRAMMING AND DATABASE

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.

1718 Catalog
Effective Summer 2017

5200

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121	
CPD221	Oracle Database: PL/SQL Programming▲	3	CPD122 **and** CSE122	
CPD222	Microsoft SQL Server Database▲	3	CPD121	
CPD223	Oracle Database: Architecture and Administration▲	3	CPD122	
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222	
CSE229	Visual Basic Development▲	3	CSE122	
CSE230	Advanced Visual Basic 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** CPD121	
WDD226	Web Development with PHP and MySQL▲	3	CSE122 **and** WDD121	
WDD227	Advanced Web Development with PHP and MySQL▲	3	WDD226	
	Select one (1) Technical Elective from the list below[3]	3	*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*	
COM121 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **or** IDS102 **or** Proficiency	
CIS126	Fundamentals of Information Systems▲	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	ENG011 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Select one (1) Social Science Elective from the list below[2]	3	*Check for prerequisites*	
	Total	**28**		
	TOTAL CREDIT HOURS	**61**		

^Based upon SSC placement score

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

▲ Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2] Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

[3] Technical Electives: CIS125, CIS221, CIS222, CIS223, CPD225

1718 Catalog Effective Summer 2017	COMPUTER PROGRAMMING AND DATABASE	5200

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*
CIS126	Fundamentals of Information Systems▲	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)
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		13	
Second Semester			
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121
CSE229	Visual Basic Development▲	3	CSE122
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
Technical Elective[3]▲		3	
		12	
Summer Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		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
CPD222	Microsoft SQL Server Database▲	3	CPD121
CPD221	Oracle Database: PL/SQL Programming▲	3	CPD122 **and** CSE122
CSE230	Advanced Visual Basic Development▲	3	CSE229
WDD226	Web Development with PHP and MySQL▲	3	CSE122 **and** WDD121
		15	
Fourth Semester			
CPD223	Oracle Database: Architecture and Administration▲	3	CPD122
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222
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** CPD121
Social Science Elective[2]		3	*Check for prerequisites*
WDD227	Advanced Web Development with PHP and MySQL▲	3	WDD226
		15	
	TOTAL CREDITS	**61**	

^Based upon SSC placement score

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

▲ Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

[3]Technical Electives: CIS125, CIS221, CIS222, CIS223, CPD225

ONE-YEAR CERTIFICATE

DATABASE SYSTEMS

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.

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Effective Summer 2017

5204

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121	
CPD222	Microsoft SQL Server Database▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222	
WDD226	Web Development with PHP and MYSQL▲	3	CSE122 **and** WDD121	
WDD227	Advanced Web Development with PHP and MYSQL▲	3	WDD226	
CPD225	Data Mining and Data Warehousing▲	3	CPD121	
CIS221	Generating Reports for Decision Making▲	3	CPD121	
	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)	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Total	**13**		
	TOTAL CREDIT HOURS	**34**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
▲Course offerings vary by semester. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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) **and** (ITD100 or Proficiency)
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		10	
Second Semester			
CIS221	Generating Reports for Decision Making▲	3	CPD121
CPD222	Microsoft SQL Server Database▲	3	CPD121
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency
WDD226	Web Development with PHP and MYSQL▲	3	CSE122 **and** WDD121
		12	
Third Semester			
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222
CPD225	Data Mining and Data Warehousing▲	3	CPD121
WDD227	Advanced Web Development with PHP and MYSQL▲	3	WDD226
		12	
	TOTAL CREDITS	**34**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

5205

Business and Information Technology Division

Computer Science and Information Systems Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD222	Microsoft SQL Server Database▲	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** CPD121	
GIS123	Maps and Map Reading▲	3		
GIS231	Geographic Information Systems▲	3	GIS123 **or** ENV223	
GIS232	Remote Sensing and Digital Image Processing▲	3	GIS123	
GIS233	Advanced Tools in Geospatial Technologies▲	3	GIS231 **and** GIS232	
GIS234	Geospatial Technologies in Industry▲	3	GIS233	
	Select two (2) Technical Elective from the list below[3]	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▲	3	IDS102 **or** Proficiency	
COM121 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **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	ENG011 **or** Proficiency	
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Select one (1) Natural Science Elective from the list below[2]	3-4	*Check for prerequisites*	
	Total	**31-32**		
	TOTAL CREDIT HOURS	**61-62**		

^Based on SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Natural Science Electives: BIO126, BIO128, BIO129, GEO141

[3]Technical Electives: CET227, CET236, CPD122, CPD221, CPD222, CPD224, CSE229, CSE231, DET126, DET230, PET101

1718 Catalog Effective Summer 2017	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.

First Semester		Credit Hours	Pre- and 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^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
GIS123	Maps and Map Reading▲	3	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		13	
Second Semester			
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
GIS231	Geographic Information Systems▲	3	GIS123 **or** ENV223
GIS232	Remote Sensing and Digital Image Processing▲	3	GIS123
Arts & Humanities Elective[1]		3	
Natural Science Elective[2]		3-4	*Check for prerequisites*
		15-16	
Summer Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH108	Explorations in Modern Mathematics^	3	(MTH091 and MTH092) **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
CPD222	Microsoft SQL Server Database▲	3	CPD121
CSE235	Python Development▲	3	CSE122
DET125	Basic AutoCAD	3	
GIS233	Advanced Tools in Geospatial Technologies▲	3	GIS231 **and** GIS232
		15	
Fourth Semester			
GIS234	Geospatial Technologies in Industry▲	3	GIS233
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** CPD121
Technical Elective[3]		3	*Check for prerequisites*
Technical Elective[3]		3	*Check for prerequisites*
		12	
	TOTAL CREDITS	**61-62**	

^Based on SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Natural Science Electives: BIO126, BIO128, BIO129, GEO141

[3]Technical Electives: CET227, CET236, CPD122, 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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2017 **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**
CPD222	Microsoft SQL Server Database▲	3	CPD121	
CSE235	Python Development▲	3	CSE122	
GIS123	Maps and Map Reading▲	3		
GIS231	Geographic Information Systems▲	3	GIS123	
GIS232	Remote Sensing and Digital Image Processing▲	3	GIS123	
	Technical Elective[1]▲	3	*Check for prerequisites*	
	Technical Elective[1]▲	3	*Check for prerequisites*	
	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) **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	**34**		

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Technical Electives: CET227, CET236, CPD122, CPD221, CPD224, CSE229, CSE231, DET126, DET230, PET101

1718 Catalog Effective Summer 2017	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^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		7	
First Semester			
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
GIS123	Maps and Map Reading	3	
Technical Elective[1] ▲		3	*Check for prerequisites*
DET125	Basic AutoCAD	3	
		12	
Second Semester			
CPD222	Microsoft SQL Server Database▲	3	CPD121
CSE235	Python Development▲	3	CSE122
GIS231	Geographic Information Systems▲	3	GIS123
GIS232	Remote Sensing and Digital Imaging Processing▲	3	GIS123
Technical Elective[1] ▲		3	*Check for prerequisites*
		15	
	TOTAL CREDITS	**34**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Technical Electives: CET227, CET236, CPD122, CPD221, CPD224, CSE229, CSE231, DET126, DET230, PET101

ASSOCIATE OF APPLIED SCIENCE

COMPUTER SCIENCE AND 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. 3357:15-13-06.

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5250

Business and Information Technology Division — *Computer Science and Information Systems Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CPD222	Microsoft SQL Server Database▲	3	CPD121	
CSE229	Visual Basic Development▲	3	CSE122	
CSE230	Advanced Visual Basic 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** CPD121	
	Select two (2) Technical Electives from the list below[3]▲	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 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **or** IDS102 or Proficiency	
CIS126	Fundamentals of Information Systems▲	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	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	(MTH093 and MTH094) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Select one (1) Social Science Elective from the list below[2]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
▲ Course offerings vary by semester. Please see your academic advisor for availability.
[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122
[2]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225
[3]Technical Electives: CSE221, CSE222, CSE226, CSE227, WDD224, WDD225, WDD226, WDD227

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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*
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)
CSE121	Mobile Development Architecture▲	3	pre-co-CSE122
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		13	
Second Semester			
CIS126	Fundamentals of Information Systems▲	3	IDS102 or Proficiency
CSE229	Visual Basic Development▲	3	CSE122
CSE231	Java Programming▲	3	CSE122
CSE233	C++ Programming▲	3	CSE122
ENG124	College Composition^	3	ENG011 **or** Proficiency
		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
Social Science Elective[2]		3	*Check for prerequisites*
		6	
Third Semester			
CPD222	Microsoft SQL Server Database▲	3	CPD121
CSE230	Advanced Visual Basic Development▲	3	CSE229
CSE232	Advanced Java Programming▲	3	CSE231
CSE234	Advanced C++ Programming▲	3	CSE233
Technical Elective[3]▲		3	*Check for prerequisites*
		15	
Fourth Semester			
Arts & Humanities Elective[1]		3	*Check for prerequisites*
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** CPD121
MTH135	Precalculus^– *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 **and** MTH094) **or** Proficiency
Technical Elective[3]▲		3	*Check for prerequisites*
		14	
	TOTAL CREDITS	**63**	

^Based upon SSC placement score

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

▲ Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

[3]Technical Electives: CSE221, CSE222, CSE226, CSE227, WDD224, WDD225, WDD226, WDD227

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. 3357:15-13-06.

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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				
WDD222	Advanced Cascading Style Sheets▲	3	WDD121	
WDD226	Web Development with PHP and MySQL▲	3	WDD121 and CSE122	
WDD227	Advanced Web Development with PHP and MySQL▲	3	WDD226	
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 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **or** 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	ENG011 **or** Proficiency	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	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[1]	3	*Check for prerequisites*	
	Select one (1) Social Science Elective from the list below[2]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

See reverse side for footnotes.

1718 Catalog Effective Summer 2017	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		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
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
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		13	
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^	3	ENG011 **or** Proficiency
		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
Social Science Elective[2]		3	*Check for prerequisites*
		6	
Third Semester			
Arts & Humanities Elective[1]		3	*Check for prerequisites*
Track Elective II▲		3	*Check for prerequisites*
SGE226	Game Programming II▲	3	SGE224
SGE222	3D Game Design and Development▲	3	SGE223
IMT129	Digital Audio Recording and Editing	3	
		15	
Fourth Semester			
Track Elective III▲		3	*Check for prerequisites*
SGE221	Advanced Gaming and Simulation Topics▲	3	SGE222
SGE230	Game Portfolio▲	3	pre-co-SGE221
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
		14	
	TOTAL CREDITS	**63**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability

[1]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

See reverse side for Track Options.

ASSOCIATE OF APPLIED SCIENCE

COMPUTER 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. 3357:15-13-06.

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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
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
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** CPD121	
CSE232	Advanced Java Programming	3	CSE231	
EET120	DC Circuit Analysis	4	pre-co-MTH125 **or** 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	
EET228	PLC's and Industrial Controls II	3	EET227	
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 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **or** IDS102 **or** Proficiency	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
ENG124	College Composition^	3	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	(MTH093 and MTH094) **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[1]	3	*Check for prerequisites*	
	Select one (1) Social Science Elective from the list below[2]	3	*Check for prerequisites*	
	Total	**32**		
	TOTAL CREDIT HOURS	**64**		

^Based on SSC placement score

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

▲ Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2] Social Science Electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

* Students who test directly into Analytical Geometry and Calculus I should contact the Math Department Chair for the possibility of receiving credit for Precalculus.

1718 Catalog Effective Summer 2017	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	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (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^	3	ENG011 **or** Proficiency
		13	
Second Semester			
EET120	DC Circuit Analysis	4	pre-co-MTH125 **or** pre-co-MTH135
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
CSE231	Java Programming▲	3	CSE122
CSE233	C++ Programming▲	3	CSE122
		15	
Summer Semester			
EET122	AC Circuit Analysis	4	(pre-co-MTH130 **or** pre-co-MTH135) **and** EET120
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
Arts & Humanities Elective[1]		3	*Check for prerequisites*
Social Science Elective[2]		3	*Check for prerequisites*
		13	
Third Semester			
EET227	PLC's & Industrial Controls I	3	EST230 **or** EET120
ENG221	Technical Report Writing	3	ENG124
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** CPD121
		12	
Fourth Semester			
EET228	PLC's and Industrial Controls II	3	EET227
MTH223	Analytical Geometry and Calculus I^*	4	MTH135
PHY121	College Physics I with Algebra (lab)	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
		11	
	TOTAL CREDITS	**64**	

^Based on SSC placement score

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

▲ Course offerings vary by semester. Please see your academic advisor for availability.

[1] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2] Social Science Electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

* 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

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. 3357:15-13-06.

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5475

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 **and** CSE121	
CSE222	iOS Development 1▲	3	CSE121	
CSE223	iOS Development 2▲	3	CSE222	
CSE224	Android Development 2▲	3	CSE221	
CSE225	Cross-Platform Mobile Application Development▲	3	WDD222 **and** WDD221 **and** CSE221 **and** CSE222	
CSE226	Software Engineering For Hand-Held Devices▲	3	CSE231	
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** CPD121	
WDD221	Web Development with JavaScript and Ajax▲	3	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 **or** COM122 **or** COM123	Effective Speaking **or** Interpersonal Communication **or** Small Group Communication	3 **or** 3 **or** 3	None **or** None **or** 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	ENG011 **or** Proficiency	
CIS126	Fundamentals of Information Systems▲	3	IDS102 **or** Proficiency	
ITD123	Mac Concepts	1		
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Select one (1) Social Science Elective from the list below[2]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Elective: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

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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*
ITD123	Mac Concepts	1	
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)
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		14	
Second Semester			
CSE231	Java Programming▲	3	CSE122
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
WDD222	Advanced Cascading Style Sheets▲	3	WDD121
WDD221	Web Development with JavaScript and Ajax▲	3	WDD121
		13	
Summer Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
Social Science Elective[2]		3	*Check for prerequisites*
		6	
Third Semester			
Arts & Humanities Elective[1]		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 **and** CSE121
CSE222	iOS Development 1▲	3	CSE121
CIS126	Fundamentals of Information Systems▲	3	IDS102 **or** Proficiency
		15	
Fourth Semester			
CSE223	iOS Development 2▲	3	CSE222
CSE224	Android Development 2▲	3	CSE221
CSE225	Cross-Platform Mobile Application Development▲	3	WDD222 **and** WDD221 **and** CSE221**and** CSE222
CSE226	Software Engineering for Hand-Held Devices▲	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** CPD121
		15	
	TOTAL CREDITS	**63**	

^Based on SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[2]Social Science Elective: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

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 only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-06.

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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 **and** CSE121	
CSE222	iOS Development 1▲	3	CSE121	
CSE223	iOS Development 2▲	3	CSE222	
CSE226	Software Engineering For Handheld Devices▲	3	CSE231	
CSE231	Java Programming▲	3	CSE122	
WDD221	Web Development with JavaScript and Ajax▲	3	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/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
	Total	**10**		
	TOTAL CREDIT HOURS	**31**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
▲Course offerings vary by semester. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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** (ITD100 or Proficiency)
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency **and** (ITD100 or Proficiency
		10	
First Semester			
CSE231	Java Programming▲	3	CSE122
CSE222	iOS Development 1▲	3	CSE121
WDD221	Web Development with JavaScript and Ajax▲	3	WDD121
		9	
Second Semester			
CSE223	iOS Development 2▲	3	CSE222
CSE226	Software Engineering for Handheld Devices▲	3	CSE231
CSE221	Android Development 1▲	3	CSE231 **and** CSE121
WDD222	Advanced Cascading Style Sheets▲	3	WDD121
		12	
	TOTAL CREDITS	**31**	

^Based upon SSC placement score

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

▲Course offerings vary by semester. Please see your academic advisor for availability.

ASSOCIATE OF APPLIED SCIENCE

3D MOTION GRAPHICS 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. 3357:15-13-06.

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5300

Business and Information Technology Division *Information Security and Digital Media Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT125	3D Graphics Modeling	3	IMT122	
IMT136	Principles of Animation	3		
IMT227	3D Graphics Animation	3	IMT136 **and** IMT125	
IMT237	Compositing	3	IMT223 **or** IMT125	
IMT240	Advanced 3D Graphic Modeling	3	IMT125	
IMT243	Advanced Compositing	3	IMT237	
IMT245	Graphic Arts Design II	3	IMT122	
IMT249	Textures for 2D and 3D	3	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	ENG011 **or** Proficiency	
ITD123	Mac Concepts	1		
IMT121	Interactive Media	3		
IMT122	Graphic Arts Design	3		
IMT137	Drawing Basics	3		
IMT223	Digital Video Recording and Editing	3	IMT121	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency	
	Select one (1) Social Science Elective from the list below.[1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
[1]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

1718 Catalog Effective Summer 2017	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	
IMT136	Principles of Animation	3	
IMT137	Drawing Basics	3	
		13	
Second Semester			
ITD123	Mac Concepts	1	
IMT125	3D Graphics Modeling	3	IMT122
IMT223	Digital Video Recording and Editing	3	IMT121
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
		13	
Summer Semester			
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		6	
Third Semester			
IMT227	3D Graphics Animation	3	IMT136 **and** IMT125
IMT237	Compositing	3	IMT223 **or** IMT125
IMT240	Advanced 3D Graphic Modeling	3	IMT125
IMT268	Advanced Video Editing	3	IMT223
IMT249	Textures for 2D and 3D	3	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 Elective[1]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**63**	

^Based upon SSC placement score

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

[1]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

ASSOCIATE OF APPLIED SCIENCE

COMPUTER NETWORK ADMINISTRATION & SECURITY 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. 3357:15-13-06.

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5400

Business and Information Technology Division *Information Security and Digital Media Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NET131	Microsoft Client Operating System	3	NET120 **and** NET121	
NET137	Routing and Switching Essentials	3	NET121	
NET220	UNIX/LINUX Operating Environment^	3	(MTH093 and MTH094) **or** Proficiency	
NET244	Microsoft Networking I	3	NET120 **and** NET121	
NET245	Microsoft Networking II	3	NET244	
NET246	Microsoft Networking III	3	NET244	
NET264	UNIX/LINUX System Administration	3	NET220	
NET266	UNIX/LINUX Network Administration	3	NET220	
NET280	Web Server Administration	3	NET264 **or** NET266	
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*	
CFS129	Cryptography	3		
CFS136	Principles of Information Security	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
NET120	PC Upgrading and Maintenance	3		
NET121	Introduction to Computer Networking	3		
PHY101	Principles of Physics^ (lab)	4	[(MTH093 or Proficiency) or (MTH105 or MTH106 or MTH107 or MTH108 or Proficiency)] **and** (IDS102 or Proficiency)	
	Select one (1) Arts & Humanities or Social Science Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement score

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

[1] Arts & Humanities or Social Science Elective: PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121

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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	ENG011 **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
NET120	PC Upgrading and Maintenance	3	
NET121	Introduction to Computer Networking	3	
		13	
Second Semester			
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
NET131	Microsoft Client Operating System	3	NET120 **and** NET121
NET137	Routing and Switching Essentials	3	NET121
NET220	UNIX/LINUX Operating Environment^	3	(MTH093 and MTH094) **or** Proficiency
NET244	Microsoft Networking I	3	NET120 **and** NET121
		16	
Third Semester			
CFS129	Cryptography	3	
COM121	Effective Speaking	3	
		6	
Fourth Semester			
CFS136	Principles of Information Security	3	
NET245	Microsoft Networking II	3	NET244
NET266	UNIX/LINUX Network Administration	3	NET220
PHY101	Principles of Physics^ (lab)	4	[(MTH093 or Proficiency) or (MTH105 or MTH106 or MTH107 or MTH108 or Proficiency)] **and** (IDS102 or Proficiency)
		13	
Fifth Semester			
NET246	Microsoft Networking III	3	NET244
NET264	UNIX/LINUX System Administration	3	NET220
NET280	Web Server Administration	3	NET264 **or** NET266
NET281	Firewall and Network Security	3	NET137
Arts & Humanities or Social Science Elective[1]		3	*Check for prerequisites*
		15	
	TOTAL CREDITS	**63**	

^Based on SSC placement score

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

[1] Arts & Humanities or Social Science Elective: PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121

ASSOCIATE OF APPLIED SCIENCE

COMPUTER NETWORK ADMINISTRATION & SECURITY TECHNOLOGY – UNIX/LINUX DATABASE ADMINISTRATION 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. 3357:15-13-06.

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Business and Information Technology Division *Information Security and Digital Media Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CFS275	Ethical Hacking	3	NET120 **and** NET220	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
CPD122	Oracle Database: Introduction to SQL	3	CPD121	
CPD223	Oracle Database: Architecture and Administration	3	CPD122	
NET120	PC Upgrading and Maintenance	3		
NET131	Microsoft Client Operating System	3	NET120 **and** NET121	
NET220	UNIX/LINUX Operating Environment^	3	(MTH093 and MTH094) **or** Proficiency	
NET264	UNIX/LINUX System Administration	3	NET220	
NET266	UNIX/LINUX Network Administration	3	NET220	
NET280	Web Server Administration	3	NET264 **or** NET266	
	Total	**30**		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	*Take first semester*	
CFS129	Cryptography	3		
CFS136	Principles of Information Security	3		
COM121	Effective Speaking	3		
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
NET121	Introduction to Computer Networking	3		
PHY101	Principles of Physics^ (lab)	4	[(MTH093 or Proficiency) or (MTH105 or MTH106 or MTH107 or MTH108 or Proficiency)] **and** (IDS102 or Proficiency)	
	Select one (1) Arts & Humanities or Social Science Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement score

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

[1]Arts & Humanities or Social Science Elective: BUS122, BUS221, BUS222, PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, PSC121

1718 Catalog Effective Summer 2017	COMPUTER NETWORK ADMINISTRATION & SECURITY TECHNOLOGY – UNIX/LINUX DATABASE ADMINISTRATION MAJOR	5402

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*
CFS129	Cryptography	3	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
NET120	PC Upgrading and Maintenance	3	
NET121	Introduction to Computer Networking	3	
		13	
Second Semester			
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
ENG124	College Composition^	3	ENG011 **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
NET131	Microsoft Client Operating System	3	NET120 **and** NET121
NET220	UNIX/LINUX Operating Environment^	3	(MTH093 and MTH094) **or** Proficiency
		15	
Third Semester			
CFS136	Principles of Information Security	3	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
		7	
Fourth Semester			
COM121	Effective Speaking	3	
CPD122	Oracle Database: Introduction to SQL	3	CPD121
CFS275	Ethical Hacking	3	NET120 **and** NET220
NET266	UNIX/LINUX Network Administration	3	NET220
		12	
Fifth Semester			
CPD223	Oracle Database: Architecture and Administration	3	CPD122
NET264	UNIX/LINUX System Administration	3	NET220
NET280	Web Server Administration	3	NET264 **or** NET266
PHY101	Principles of Physics^ (lab)	4	[(MTH093 or Proficiency) or (MTH105 or MTH106 or MTH107 or MTH108 or Proficiency)] **and** (IDS102 or Proficiency)
Arts & Humanities or Social Science Elective[1]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**63**	

^Based on SSC placement score

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

[1] Arts & Humanities or Social Science Elective: BUS122, BUS221, BUS222, PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, PSC121

ASSOCIATE OF APPLIED SCIENCE

COMPUTER NETWORK ADMINISTRATION & SECURITY TECHNOLOGY – CISCO NETWORK ADMINISTRATION MAJOR

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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. 3357:15-13-06.

Business and Information Technology Division *Information Security and Digital Media Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NET131	Microsoft Client Operating System	3	NET120 **and** NET121	
NET137	Routing and Switching Essentials	3	NET121	
NET220	UNIX/LINUX Operating Environment^	3	(MTH093 and MTH094) **or** Proficiency	
NET244	Microsoft Networking I	3	NET120 **and** NET121	
NET251	Voiceover IP Fundamentals	3	NET137	
NET253	Securing Networks with Switches and Routers	3	NET137	
NET254	Cisco Wireless	3	NET137	
NET256	Scaling Networks	3	NET137	
NET257	Connecting Networks	3	NET137	
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*	
CFS129	Cryptography	3		
CFS136	Principles of Information Security	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
NET120	PC Upgrading and Maintenance	3		
NET121	Introduction to Computer Networking	3		
PHY101	Principles of Physics^ (lab)	4	(MTH093 or Proficiency) **or [**(MTH105 or MTH106 or MTH107 or MTH108 or Proficiency) and (IDS102 or Proficiency)]	
	Select one (1) Arts & Humanities or Social Science Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^ Based on SSC placement score
^^To promote student success, this course should be taken in the first semester
1Arts & Humanities or Social Science Elective: BUS122, BUS221, BUS222, PSC121, PHL122, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC225

1718 Catalog Effective Summer 2017	COMPUTER NETWORK ADMINISTRATION & SECURITY TECHNOLOGY – CISCO NETWORK ADMINISTRATION MAJOR	5403

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*
CFS129	Cryptography	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
NET120	PC Upgrading and Maintenance	3	
NET121	Introduction to Computer Networking	3	
		13	
Second Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
NET131	Microsoft Client Operating System	3	NET120 **and** NET121
NET137	Routing and Switching Essentials	3	NET121
NET220	UNIX/LINUX Operating Environment^	3	(MTH093 and MTH094) **or** Proficiency
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
		16	
Third Semester			
CFS136	Principles of Information Security	3	
Arts & Humanities or Social Science Elective[1]		3	*Check for prerequisites*
		6	
Fourth Semester			
NET244	Microsoft Networking I	3	NET120 **and** NET121
NET251	Voiceover IP Fundamentals	3	NET137
NET256	Scaling Networks	3	NET137
PHY101	Principles of Physics^ (lab)	4	(MTH093 or Proficiency) **or [**(MTH105 or MTH106 or MTH107 or MTH108 or Proficiency) and (IDS102 or Proficiency)]
		13	
Fifth Semester			
COM121	Effective Speaking	3	
NET253	Securing Networks with Switches and Routers	3	NET137
NET254	Cisco Wireless	3	NET137
NET257	Connecting Networks	3	NET137
NET281	Firewall and Network Security	3	NET137
		15	
	TOTAL CREDITS	**63**	

^ Based on SSC placement score

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

1 Arts & Humanities or Social Science Elective: BUS122, BUS221, BUS222, PSC121, PHL122, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC225

ASSOCIATE OF APPLIED SCIENCE

CYBER SECURITY AND COMPUTER FORENSICS 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. 3357:15-13-06.

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Business and Information Technology Division *Information Security and Digital Media 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	
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	(MTH093 and MTH094) **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*	
ACC235	Forensic Accounting	3		
BIO126	Science, Energy, and the Environment (lab)	4		
CFS129	Cryptography	3		
CFS140	Biometric Applications	3		
CFS175	White Collar Crime	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
SOC225	Cultural Diversity	3		
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based upon SSC placement scores
^^To promote student success, this course should be taken in the first semester

1718 Catalog Effective Summer 2017	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^	3	ITD100 **or** Proficiency
NET120	PC Upgrading and Maintenance	3	
NET121	Introduction to Computer Networking	3	
		16	
Second Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
CFS137	Computer Crime and Investigation	3	NET120
CFS140	Biometric Applications	3	
NET220	UNIX/LINUX Operating Environment^	3	(MTH093 and MTH094) **or** Proficiency
CFS175	White Collar Crime	3	
		15	
Third Semester			
CFS129	Cryptography	3	
SOC225	Cultural Diversity	3	
		6	
Fourth Semester			
BIO126	Science, Energy, and the Environment (lab)	4	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
CFS257	File Systems Analysis	3	CFS137
CFS275	Ethical Hacking	3	NET120 **and** NET220
		14	
Fifth Semester			
ACC235	Forensic Accounting	3	
CFS256	Disaster Recovery and Incident Planning	3	
CFS258	Cyber Forensics and Data Recovery	3	CFS257
CFS287	Network Forensics	3	CFS137 **and** NET121 **and** NET220
		12	
	TOTAL CREDITS	**63**	

^Based upon SSC placement scores

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

ASSOCIATE OF APPLIED SCIENCE

MUSIC PRODUCTION AND 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. 3357:15-13-06.

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Business and Information Technology Division *Information Security and Digital Media 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** Co-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	ENG011 **or** Proficiency	
IMT121	Interactive Media	3		
IMT223	Digital Video Recording and Editing	3	IMT121	
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		
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency	
	Select one (1) Social Science Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement score
^^To promote student success, this course should be taken in the first semester
[1]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

1718 Catalog Effective Summer 2017	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	Student Success Seminar^^	1	*Take first semester*
IMT121	Interactive Media	3	
IMT129	Digital Audio Recording and Editing	3	
IMT135	Music Theory and Composition I	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
ITD123	MAC Concepts	1	
		14	
Second Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
IMT134	Technical Musicianship	3	IMT135
IMT223	Digital Video Recording and Editing	3	IMT121
IMT247	Music Theory and Composition II	3	IMT135
IMT250	Music Technology	3	IMT129
		15	
Summer Semester			
COM121	Effective Speaking	3	
BIO126	Science, Energy, and the Environment (lab)	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 Elective[1]		3	*Check for prerequisites*
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency
		15	
Fourth Semester			
IMT230	Webcasting	3	IMT129
IMT259	Music Synthesis II	3	IMT239
IMT261	Advanced Music Technology	3	IMT239 **and** Co-IMT246
IMT266	Film Theory and Practice	3	IMT121
		12	
	TOTAL CREDITS	**63**	

^Based on SSC placement score

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

[1]Social Science Electives: PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221, SOC225

ASSOCIATE OF APPLIED SCIENCE

COMPUTER GRAPHIC ARTS 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

5500

Business and Information Technology Division *Information Security and Digital Media Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT122	Graphic Arts Design	3		
IMT125	3D Graphics Modeling	3	IMT122	
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	Graphic for Illustration	3	IMT122	
IMT254	Portfolio Development	3	IMT244 **and** IMT245 **and** IMT253	
IMT255	Advanced Illustration	3	IMT253	
WDD121	Internet/Intranet 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	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		
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency	
SOC225	Cultural Diversity	3		
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement score

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

1718 Catalog Effective Summer 2017	COMPUTER GRAPHIC ARTS TECHNOLOGY	5500

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	ENG011 **or** Proficiency
IMT122	Graphic Arts Design	3	
IMT131	Color Theory and Design	3	
IMT141	Typography Fundamentals	3	
ITD123	MAC Concepts	1	
		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	Graphic for Illustration	3	IMT122
		15	
Summer Semester			
COM121	Effective Speaking	3	
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency
		6	
Third Semester			
BIO126	Science, Energy, and the Environment (lab)	4	
IMT121	Interactive Media	3	
IMT125	3D Graphics Modeling	3	IMT122
IMT255	Advanced Illustration	3	IMT253
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		16	
Fourth Semester			
ENT120	Entrepreneurship	3	IDS102 **or** Proficiency
IMT254	Portfolio Development	3	IMT244 **and** IMT245 **and** IMT253
SOC225	Cultural Diversity	3	
WDD121	Internet/Intranet Design and Development^	3	(IDS101 or Proficiency) **and** (ITD100 or Proficiency)
		12	
	TOTAL CREDITS	**63**	

^Based on SSC placement score

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

ASSOCIATE OF APPLIED SCIENCE

COMPUTER GRAPHIC ARTS TECHNOLOGY – DIGITAL PHOTOGRAPHY 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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

5501

Business and Information Technology Division *Information Security and Digital Media Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT122	Graphic Arts Design	3		
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 **and** IMT262	
DPH280	Photography Portfolio	3	IMT263	
	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	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		
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency	
SOC225	Cultural Diversity	3		
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement score
^^To promote student success, this course should be taken in the first semester

1718 Catalog Effective Summer 2017	COMPUTER GRAPHIC ARTS TECHNOLOGY – 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.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ENG124	College Composition^	3	ENG011 **or** Proficiency
IMT122	Graphic Arts Design	3	
IMT132	Digital Photography/Graphic & Media	3	
IMT141	Typography Fundamentals	3	
ITD123	MAC Concepts	1	
		14	
Second Semester			
IMT121	Interactive Media	3	
IMT131	Color Theory and Design	3	
IMT245	Graphic Arts Design II	3	IMT122
IMT253	Graphics for Illustration	3	IMT122
IMT263	Photographic Lighting	3	IMT132
		15	
Summer Semester			
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		6	
Third Semester			
BIO126	Science, Energy, and the Environment (lab)	4	
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency
IMT244	Digital Page Layout and Design	3	IMT122 **and** IMT131 **and** IMT141
IMT262	Advanced Digital Photography	3	IMT132
		13	
Fourth Semester			
DPH280	Photography Portfolio	3	IMT263
ENT120	Entrepreneurship	3	IDS102 **or** Proficiency
IMT256	Digital Imaging	3	IMT122 **and** IMT132
IMT264	Image Management	3	IMT132 **and** IMT262
SOC225	Cultural Diversity	3	
		15	
	TOTAL CREDITS	**63**	

^Based on SSC placement score

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

ASSOCIATE OF APPLIED SCIENCE

HOMELAND SECURITY INFORMATION TECHNOLOGY (National Security Preparedness, Response, and Operations)

1718 Catalog
Effective Summer 2017

5525

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.

Business and Information Technology Division *Information Security and Digital Media Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CFS137	Computer Crime and Investigation	3	NET120	
CFS256	Disaster Recovery and Incident Planning	3		
CFS257	File System Analysis	3	CFS137	
CFS275	Ethical Hacking	3	NET120 **and** NET220	
HLS121	Introduction to Emergency Management	3		
HLS122	Intelligence and Homeland Security	3		
HLS123	Homeland Defense and Crisis Management	3		
HLS220	Weapons of Mass Destruction Awareness	3	HLS123	
HLS221	Terrorism and Homeland Defense	3	HLS122	
HLS225	Intelligence Analysis	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*	
BIO126	Science, Energy, and the Environment (lab)	4		
CFS140	Biometric Applications	3		
CFS136	Principles of Information Security	3		
CFS175	White Collar Crime	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency	
NET120	PC Upgrading and Maintenance	3		
NET220	UNIX/LINUX Operating System^	3	(MTH093 and MTH094) **or** Proficiency	
SOC225	Cultural Diversity	3		
	Total	**32**		
	TOTAL CREDIT HOURS	**62**		

^Based on SSC placement score

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

1718 Catalog Effective Summer 2017	HOMELAND SECURITY INFORMATION TECHNOLOGY (National Security Preparedness, Response, and Operations)	5525

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*
HLS121	Introduction to Emergency Management	3	
HLS122	Intelligence and Homeland Security	3	
HLS123	Homeland Defense and Crisis Management	3	
NET120	PC Upgrading and Maintenance	3	
		13	
Second Semester			
CFS136	Principles of Information Security	3	
CFS137	Computer Crime and Investigation	3	NET120
CFS140	Biometric Applications	3	
NET220	UNIX/LINIX Operating Systems^	3	(MTH093 and MTH094) **or** Proficiency
HLS220	Weapons of Mass Destruction Awareness	3	HLS123
		15	
Third Semester			
ENG124	College Composition^	3	ENG011 **or** Proficiency
BIO126	Science, Energy, and the Environment (lab)	4	
		7	
Fourth Semester			
CFS256	Disaster Recovery and Incident Planning	3	
CFS257	File Systems Analysis	3	CFS137
CFS275	Ethical Hacking	3	NET120 **and** NET220
HLS225	Intelligence Analysis	3	
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency
		15	
Fifth Semester			
CFS175	White Collar Crime	3	
COM121	Effective Speaking	3	
HLS221	Terrorism and Homeland Defense	3	HLS122
SOC225	Culture Diversity	3	
		12	
	TOTAL CREDITS	**62**	

^Based on SSC placement score

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

ASSOCIATE OF APPLIED SCIENCE

DIGITAL VIDEO MEDIA 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. 3357:15-13-06.

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Effective Summer 2017

5550

Business and Information Technology Division *Information Security and Digital Media Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT125	3D Graphics Modeling	3	IMT122	
IMT129	Digital Audio Recording and Editing	3		
IMT223	Digital Video Recording and Editing	3	IMT121	
IMT237	Compositing	3	IMT223 **or** IMT125	
IMT238	Advanced Video Production	3	IMT242	
IMT242	Lighting and Cinematography	3	IMT223	
IMT251	Authoring and Video Compression	3	IMT242	
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	ENG011 **or** Proficiency	
ENT120	Entrepreneurship^	3	IDS102 **or** Proficiency	
IMT121	Interactive Media	3		
IMT122	Graphic Arts Design	3		
IMT132	Digital Photography/Graphic and Media	3		
IMT137	Drawing Basics	3		
ITD123	MAC Concepts	1		
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below[1]	3	*Check for prerequisites*	
	Total	**33**		
	TOTAL CREDIT HOURS	**63**		

^Based on SSC placement score

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

[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

1718 Catalog Effective Summer 2017	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.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ENG124	College Composition^	3	ENG011 **or** Proficiency
IMT121	Interactive Media	3	
IMT122	Graphic Arts Design	3	
IMT137	Drawing Basics	3	
		13	
Second Semester			
IMT129	Digital Audio Recording and Editing	3	
IMT132	Digital Photography/Graphic and Media	3	
IMT223	Digital Video Recording and Editing	3	IMT121
IMT266	Film Theory and Practice	3	IMT121
ITD123	MAC Concepts	1	
		13	
Summer Semester			
COM121	Effective Speaking	3	
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency
BIO126	Science, Energy, and the Environment (lab)	4	
		10	
Third Semester			
ENT120	Entrepreneurship^	3	IDS102 **or** Proficiency
IMT125	3D Graphics Modeling	3	IMT122
IMT237	Compositing	3	IMT223 **or** IMT125
IMT242	Lighting and Cinematography	3	IMT223
IMT268	Advanced Video Editing	3	IMT223
		15	
Fourth Semester			
IMT238	Advanced Video Production	3	IMT242
IMT251	Authoring and Video Compression	3	IMT242
IMT265	Motion Graphics Portfolio	3	IMT268
Arts & Humanities Elective[1]		3	*Check for prerequisites*
		12	
	TOTAL CREDITS	**63**	

^Based on SSC placement score

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

[1]Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

CAREER ENHANCEMENT CERTIFICATE

ADMINISTRATIVE SERVICES AND OFFICE APPLICATIONS – FORMATTING AND OFFICE SKILLS

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.

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2127

Business and Information Technology Division *Administrative Services & Office Applications Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency	
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	AOT121 **and** (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^✹	3	ITD100 **or** Proficiency
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency
AOT130	Editing, Proofreading, and Language Skills	3	
		9	
Second Semester			
AOT129	Keyboarding Skill Building	1	AOT121
AOT132	Records Management^	3	IDS102 **or** Proficiency
AOT127	Word Processing - Microsoft Word	3	AOT121 **and** (ITD100 or Proficiency)
		7	
	TOTAL CREDITS	**16**	

^Based upon SSC placement score

✹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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

2129

Business and Information Technology Division *Administrative Services & Office Applications 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 & Development	3		
TDS124	Instructional Design for the Trainer	3	TDS121	
TDS221	Adobe Captivate	1		
TDS222	Web-based Learning	3	TDS124	
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 & Development	3	
TDS221	Adobe Captivate	1	
TDS222	Web-based Learning	3	TDS124
		7	
Second Semester			
TDS124	Instructional Design for the Trainer	3	TDS121
TDS223	ADDIE Capstone Course	3	TDS124
		6	
	TOTAL CREDITS	**13**	

CAREER ENHANCEMENT CERTIFICATE

TRAINING & DEVELOPMENT TECHNOLOGY – TRAINING & DEVELOPMENT 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. 3357:15-13-06.

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Effective Summer 2017

2130

Business and Information Technology Division *Administrative Services & Office Applications 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
ITD108	MS Outlook^	1	IDS102 **or** Proficiency	
TDS121	Introduction to Training and Development	3		
TDS122	Training Logistics	1		
COM226	Organizational Communication	3		
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	3	
		7	
Second Semester			
TDS122	Training Logistics	1	
COM226	Organizational Communication	3	
TDS220	Measuring and Evaluating Training	3	pre-co-TDS122
		7	
	TOTAL CREDITS	**14**	

^Based upon SSC placement score

CAREER ENHANCEMENT CERTIFICATE

TRAINING & DEVELOPMENT TECHNOLOGY – TRAINING SOFTWARE APPLICATIONS SPECIALIST

1718 Catalog
Effective Summer 2017

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. 3357:15-13-06.

Business and Information Technology Division *Administrative Services & Office Applications 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^	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	Adobe Captivate	1		
	TOTAL CREDIT HOURS	**12**		

^Based upon SSC placement score

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
ITD109	Presentation Technologies for the Trainer^	1	ITD100 **or** Proficiency
TDS121	Introduction to Training and Development	3	
TDS221	Adobe Captivate	1	
		5	

Second Semester		Credit Hours	
AOT226	Spreadsheet - Microsoft Excel^	3	ITD100 **or** Proficiency
ITD123	MAC Concepts	1	
TDS124	Instructional Design for the Trainer	3	TDS121
		7	
	TOTAL CREDITS	**12**	

^Based upon SSC placement score

CAREER ENHANCEMENT CERTIFICATE

ADMINISTRATIVE SERVICES AND OFFICE APPLICATIONS – DESKTOP PUBLISHING

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.

1718 Catalog
Effective Summer 2017

2156

Business and Information Technology Division *Administrative Services & Office Applications Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency	
AOT128	Desktop Publishing – Microsoft Publisher▲+	3	ITD122 **and** IMT122	
IMT122	Graphic Arts Design	3		
AOT134	Form Design Essentials▲-	1		
	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
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency
IMT122	Graphic Arts Design	3	
AOT134	Form Design Essentials▲-	1	
		7	
Second Semester			
AOT128	Desktop Publishing – Microsoft Publisher▲+	3	ITD122 **and** IMT122
		3	
	TOTAL CREDITS	**10**	

^Based upon SSC placement score
✹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.
▲- Fall only courses. Please see your academic advisor for availability.

CAREER ENHANCEMENT CERTIFICATE

JUDICIAL COURT REPORTING – CAPTIONING/CART

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.

1718 Catalog
Effective Summer 2017

2159

Business and Information Technology Division *Administrative Services & Office Applications Department*

Course Number	Course Title		Credits	Pre- and Co-Requisites	Completed Sem./Year
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	
ASL121	Stark	Introduction to Deaf Culture Community	3		
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	College		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	
		Total Credits	**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.

CAREER ENHANCEMENT CERTIFICATE

ADMINISTRATIVE SERVICES AND OFFICE APPLICATIONS – MICROSOFT APPLICATIONS PROFESSIONAL

1718 Catalog
Effective Summer 2017

5024

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.

Business and Information Technology Division *Administrative Services & Office Applications Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^✹	3	ITD100 **or** Proficiency	
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency	
ITD108	Microsoft – Outlook	1	IDS102 **or** Proficiency	
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)	
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency	
AOT236	Database Applications – Microsoft Access^▲+	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^✹	3	ITD100 **or** Proficiency
AOT121	Keyboarding/Formatting	3	AOT101 **or** Proficiency
ITD108	Microsoft – Outlook	1	IDS102 **or** Proficiency
		7	
Second Semester			
AOT127	Word Processing – Microsoft Word^	3	AOT121 **and** (ITD100 or Proficiency)
AOT226	Spreadsheet – Microsoft Excel^	3	ITD100 **or** Proficiency
AOT236	Database Applications – Microsoft Access^▲+	3	ITD100 **or** Proficiency
		9	
	TOTAL CREDITS	**16**	

^Based upon SSC placement score

✹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.

CAREER ENHANCEMENT CERTIFICATE

MANAGEMENT INFORMATION SYSTEMS – HELP DESK AND COMPUTER USER SUPPORT

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.

1718 Catalog
Effective Summer 2017

5030

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	3	
		9	
Second Semester			
NET131	Microsoft Client Operating System	3	NET120 **and** NET121
NET244	Microsoft Networking I	3	NET120 **and** NET121
		6	
	TOTAL CREDITS	**15**	

^ Based upon SSC placement score
▲ Course offerings vary by semester. Please see your academic advisor for availability.

CAREER ENHANCEMENT CERTIFICATE

WEB DESIGN AND DEVELOPMENT – WEB DESIGN

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.

1718 Catalog
Effective Summer 2016

5105

Business and Information Technology Division — *Computer Science and Information Systems Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
WDD121	Internet/Intranet Design and Development^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
WDD122	Web Graphics Design▲	3	WDD121	
WDD221	Web Development with JavaScript and AJAX▲	3	WDD121	
WDD222	Advanced Cascading Style Sheets▲	3	WDD121	
WDD229	Advanced Web Design▲	3	WDD122	
	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
WDD121	Internet/Intranet Design and Development^	**3**	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
Second Semester			
WDD122	Web Graphics Design▲	3	WDD121
WDD221	Web Development with JavaScript and AJAX▲	3	WDD121
		6	
Third Semester			
WDD222	Advanced Cascading Style Sheets▲	3	WDD121
WDD229	Advanced Web Design ▲	3	WDD122
		6	
	TOTAL CREDITS	**15**	

^Based upon SSC placement score

▲Course offerings vary by semester. Please see your academic advisor for availability.

CAREER ENHANCEMENT CERTIFICATE

COMPUTER PROGRAMMING AND DATABASE – MICROSOFT SQL SERVER

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.

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Effective Summer 2016

5206

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)	
CPD222	Microsoft SQL Server Database▲	3	CPD121	
CPD224	Advanced Microsoft SQL Server Database▲	3	CPD222	
	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^	**3**	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
Second Semester			
CPD222	Microsoft SQL Server Database▲	**3**	CPD121
Third Semester			
CPD224	Advanced Microsoft SQL Server Database▲	**3**	CPD222
	TOTAL CREDITS	**9**	

^Based upon SSC placement score

▲Course offerings vary by semester. Please see your academic advisor for availability.

CAREER ENHANCEMENT CERTIFICATE

COMPUTER PROGRAMMING AND DATABASE – ORACLE DATABASE

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.

1718 Catalog
Effective Summer 2016

5207

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)	
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121	
CPD221	Oracle Database: PL/SQL Programming▲	3	CPD122 and CSE122	
CPD223	Oracle Database: Architecture and Administration▲	3	CPD122	
	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
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
CPD121	Data Modeling and Database Design^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
		6	
Second Semester			
CPD122	Oracle Database: Introduction to SQL▲	3	CPD121
		3	
Third Semester			
CPD221	Oracle Database: PL/SQL Programming▲	3	CPD122 **and** CSE122
		3	
Fourth Semester			
CPD223	Oracle Database: Architecture and Administration▲	3	CPD122
		3	
	TOTAL CREDITS	**15**	

^Based upon SSC placement score

▲Course offerings vary by semester. Please see your academic advisor for availability.

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2016

5255

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^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
Second Semester			
CSE233	C++ Programming▲	3	CSE122
Third Semester			
CSE234	Advanced C++ Programming▲	3	CSE233
	TOTAL CREDITS	**9**	

^Based upon SSC placement score

▲Course offerings vary by semester. Please see your academic advisor for availability.

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2016

5257

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^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)
Second Semester			
CSE231	Java Programming▲	3	CSE122
Third Semester			
CSE232	Advanced Java Programming▲	3	CSE231
	TOTAL CREDITS	**9**	

^Based upon SSC placement score

▲Course offerings vary by semester. Please see your academic advisor for availability.

CAREER ENHANCEMENT CERTIFICATE

UNIX/LINUX ADMINISTRATION

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.

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Effective Summer 2016

5405

Business and Information Technology Division *Information Security and Digital Media Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NET220	Unix/Linux Operating Environment^	3	MTH123 **or** Proficiency	
NET264	Unix/Linux System Administration	3	NET220	
NET266	Unix/Linux Network Administration	3	NET220	
	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
NET220	Unix/Linux Operating Environment^	**3**	MTH123 **or** Proficiency
Second Semester			
NET264	Unix/Linux System Administration	**3**	NET220
Third Semester			
NET266	Unix/Linux Network Administration	**3**	NET220
	TOTAL CREDITS	**9**	

^Based on SSC placement scores.

CAREER ENHANCEMENT CERTIFICATE

PREPARATION FOR CISCO CCNA CERTIFICATION

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.

1718 Catalog
Effective Summer 2017

5406

Business and Information Technology Division *Information Security and Digital Media Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NET120	PC Upgrading and Maintenance	3		
NET121	Intro to Computer Networking	3		
NET137	Routing and Switching Essentials	3	NET121	
NET256	Scaling Networks	3	NET137	
NET257	Connecting Networks	3	NET137	
	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
NET120	PC Upgrading and Maintenance	3	
NET121	Intro to Computer Networking	3	
		6	
Second Semester			
NET137	Routing and Switching Essentials	3	NET121
		3	
Third Semester			
NET256	Scaling Networks	3	NET137
NET257	Connecting Networks	3	NET137
		6	
	TOTAL CREDITS	**15**	

CAREER ENHANCEMENT CERTIFICATE

COMMERCIAL MUSIC TECHNOLOGY – MUSIC PRODUCTION

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

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Effective Summer 2017

5461

Business and Information Technology Division *Information Security and Digital Media 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.

First Semester		Credit Hours	Pre- and Co-requisites
IMT121	Interactive Media	3	
IMT135	Music Theory and Composition I	3	
IMT129	Digital Audio Recording and Editing	3	
		9	
Second Semester			
IMT247	Music Theory and Composition II	3	IMT135
IMT250	Music Technology	3	IMT129
		6	
	TOTAL CREDITS	**15**	

CAREER ENHANCEMENT CERTIFICATE

GRAPHIC DESIGN

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.

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Effective Summer 2017

5502

Business and Information Technology Division *Information Security and Digital Media Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT122	Graphic Arts Design	3		
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	
IMT131	Color Theory and Design	3	
		6	
Second Semester			
IMT137	Drawing Basics	3	
IMT253	Graphics for Illustration	3	IMT122
		6	
	TOTAL CREDITS	**12**	

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. 3357:15-13-06.

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5503

Business and Information Technology Division *Information Security and Digital Media Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT122	Graphic Arts Design	3		
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	
IMT131	Color Theory and Design	3	
		6	
Second Semester			
IMT132	Digital Photography	3	
IMT256	Digital Imaging	3	IMT122 **and** IMT132
		6	
	TOTAL CREDITS	**12**	

CAREER ENHANCEMENT CERTIFICATE

DISASTER RECOVERY PREPARATION

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.

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Effective Summer 2017

5526

Business and Information Technology Division *Information Security and Digital Media Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HLS121	Introduction to Emergency Management	3		
HLS122	Intelligence and Homeland Security	3		
CFS136	Principles of Information Security	3		
CFS256	Disaster Recovery and Incident Planning	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
HLS121	Introduction to Emergency Management	3	
HLS122	Intelligence and Homeland Security	3	
		6	
Second Semester			
CFS136	Principles of Information Security	3	
CFS256	Disaster Recovery and Incident Planning	3	
		6	
	TOTAL CREDITS	**12**	

	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. 3357:15-13-06.*	**1718 Catalog** Effective Summer 2016 **5576**

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	
GIS232	Remote Sensing and Digital Image Processing▲	3	GIS123	
GIS233	Advanced Tools in Geospatial Technologies▲	3	GIS231 **and** GIS232	
GIS234	Geospatial Technologies in Industry▲	3	GIS233	
	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
GIS123	Maps and Map Reading▲	3	
		3	
Second Semester			
GIS231	Geographic Information Systems▲	3	GIS123 **or** ENV223
GIS232	Remote Sensing and Digital Image Processing▲	3	GIS123
		6	
Third Semester			
GIS233	Advanced Tools in Geospatial Technologies▲	3	GIS231 **and** GIS232
		3	
Fourth Semester			
GIS234	Geospatial Technologies in Industry▲	3	GIS233
		3	
	TOTAL CREDITS	**15**	

▲Course offerings vary by semester. Please see your academic advisor for availability.

LIBERAL ARTS

Stark State COLLEGE

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

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.

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Effective Summer 2017

1200

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 ELECTIVES: ***3 credit hours minimum***				
WDD121	Internet/Intranet Design & Development^	3	IDS102 **or** Proficiency	
AOT235	Legal Research and Writing	3		
IMT121	Interactive Media	3		
IMT122	Graphic Arts Design	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*	
COM122	Interpersonal Communication	3		
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG231	College Composition II	3	ENG124	
MTH106 **or** MTH124	Math for Technology^ **or** Statistics^ Ω	3 **or** 3	(MTH091 and MTH092) **or** Proficiency MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
	Select one (1) Arts & Humanities Elective from the list below [2]	3	*Check for prerequisites*	
	Select two (2) Social Science Electives from the list below [3]	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 [5]	3	*Check for prerequisites*	
	Total	**31-33**		
	TOTAL CREDIT HOURS	**61-63**		

^Based upon SSC placement scores.
^^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.
Ω MTH124 should only be taken by students planning to transfer to a four-year institution.
[2] Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122
[3] Social Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY122, PSY123, PSY221, SOC121, SOC123
[4] Natural Sciences Electives: BIO101, BIO121, BIO126, BIO127, BIO128, BIO129, BIO130, CHM101, PHY101
[5] Communication Elective: COM121, COM123, COM125
▲-Fall only courses. Please see your academic advisor for availability.
▲+Spring 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.

First Semester		Credit Hours	Pre- and Co-Requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ENG124	College Composition^	3	ENG011 **or** Proficiency
COM122	Interpersonal Communication	3	
Communication Elective [5]		3	*Check for prerequisites*
MTH106	Math for Technology^	3	(MTH091 and MTH092) **or** Proficiency
or	**or**	**or**	
MTH124	Statistics^ Ω	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
		16	
Second Semester			
ENG231	College Composition II	3	ENG124
Natural Sciences Elective [4]⅄		3-4	*Check for prerequisites*
COM223	Interviewing I▲-	3	
ENG221	Technical Report Writing	3	ENG124
ENG227	Writing for Media	3	ENG124
		15-16	
Third Semester			
ENG125	Technical Editing and Layout▲+	3	ENG124
ENG126	Technical Grammar and Style▲+	3	ENG124
Social Science Elective [3]		3	*Check for prerequisites*
Natural Sciences Elective [4]⅄		3-4	*Check for prerequisites*
Arts & Humanities Elective [2]		3	*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 Elective [3]		3	*Check for prerequisites*
Technical Elective [1]		3	*Check for prerequisites*
		15	
	TOTAL CREDITS	**61-63**	

^Based upon SSC placement scores.

^^ 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.

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

[1] Technical Elective: AOT235, IMT121, IMT122, WDD121

[2] Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

[3] Social Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY122, PSY123, PSY221, SOC121, SOC123

[4] Natural Sciences Electives: BIO101, BIO121, BIO126, BIO127, BIO128, BIO129, BIO130, CHM101, PHY101

[5] Communication Elective: COM121, COM123, COM125

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

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

ASSOCIATE OF ARTS

ASSOCIATE OF ARTS – GENERAL

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.

1718 Catalog
Effective Summer 2017

7100

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 APPLICATIONS				
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
WRITTEN & ORAL COMMUNICATION: ***6 credit hours minimum***				
ENG124	College Composition^ **(required)**	3	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	
COM126	Introduction to Mass Communication▲+	3		
SOCIAL & BEHAVIORAL SCIENCES: ***12 credit hours minimum***				
SOC225	Cultural Diversity **(required)**	3		
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY122	Psychology of Adjustment	3	PSY121	
PSY123	Human Growth and Development	3	PSY121	
PSY124	Industrial/Organizational Psychology	3		
PSY220	Social Psychology	3	PSY121	
PSY221	Abnormal Psychology	3	PSY121	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
SOC122	Society and Technology	3		
SOC123	Dynamics of the Family	3		
SOC221	Social Problems	3	SOC121	
ARTS & HUMANITIES: ***9 credit hours minimum***				
ENG233	British Literature: Medieval to 1785	3	ENG124	

^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.
▲+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
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	HIS222 World Civilization from 17th Century	3		
PHL122	Ethics	3		
SCIENCES & MATHEMATICS				
***Natural Sciences*: 7 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	
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	Applying Chemistry to Society (lab)	4		
CHM101	Introduction to Chemistry^⅄	4	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., and Bio Chemistry I (lab)^⅄	4	CHM101 **or** Proficiency	
CHM122	Gen., Org., and Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)^⅄	5	CHM101 **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	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **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		

^ 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.

1718 Catalog Effective Summer 2017	ASSOCIATE OF ARTS – GENERAL	7100

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
***Mathematics*: 3 credit hours minimum**				
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** 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	(MTH093 and MTH094) **or** Proficiency	
MTH221	Concepts of Calculus^▲+	3	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH 135 **or** (MTH125 and MTH130) **or** Proficiency	
ADDITIONAL ELECTIVES TO COMPLETE DEGREE		**14-20**	*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, choose elective courses from the list below, or receive approval from the department chair for other related electives. 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	CHN100 Elementary Chinese I (4)
GER121 Introduction to Gerontology (3)	CHN200 Elementary Chinese II (4)
GER122 Psychosocial Aspects of Aging (3)	
GLS121 Introduction to Law and the Legal System (3)	**Criminal Justice**
PSC221 State and Local Government (3)	CJS121 Introduction to Criminal Justice (3)
PSC222 Public Policy (3)	CJS129 Corrections (3)
PSY222 Psychological Aspects of Therapy (3)	CJS221 Criminology (3)
SOC222 Juvenile Delinquency (3)	
	Biology
	BIO101 Introduction to Anatomy and Physiology (3)^⅄
	BIO123 Principles of Human Structure & Function (5)#
	BIO222 Pharmacology (3)

^ Based on SSC placement scores.

#BIO121 and BIO122 may be substituted for BIO123.

⅄ 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.

1718 Catalog Effective Summer 2017	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 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- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
Arts & Humanities Elective [1]		3	*Check for prerequisites*
Social & Behavioral Science Elective^ [5]		3	*Check for prerequisites*
		13	
Second Semester			
Arts & Humanities Elective [1]		3	*Check for prerequisites*
Mathematics Elective [2]		3-5	*Check for prerequisites*
Natural Sciences Elective⅄ [3]		3-5	*Check for prerequisites*
Written & Oral Communication Elective [4]		3	*Check for prerequisites*
		12-16	
Third Semester			
SOC225	Cultural Diversity	3	
Natural Sciences Elective⅄ [3]		4-5	*Check for prerequisites*
Arts & Humanities Elective [1]		3	*Check for prerequisites*
Social & Behavioral Science Elective^ [5]		3	*Check for prerequisites*
Social & Behavioral Science Elective^ [5]		3	*Check for prerequisites*
		16-17	
Fourth Semester			
Elective [6] *(Take an additional 14-20 credit hours to reach 60 credit hours)*		**14-20**	*Check for prerequisites*
	TOTAL CREDITS	**60-63**	

^Based on SSC placement scores.
^^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.
[1] Arts & Humanities Electives: ENG233, ENG234, ENG235, ENG236, ENG237, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122
[2] Mathematics Elective: MTH124, MTH125, MTH130, MTH135, MTH221, MTH223
[3] Natural Sciences Electives: BIO121, BIO122, BIO124, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, BIO221, CHM100, CHM101, CHM105, CHM121, CHM122, CHM141, CHM142, CHM205, GEO141, PHY101, PHY121, PHY122, PHY105
[4] Written & Oral Communication Elective: COM121, COM122, COM123, COM125, COM126, ENG221, ENG230, ENG231
[5] Social & Behavioral Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, PSY221, SOC121, SOC122, SOC123, SOC221
[6] Electives: Select from ASL122, ASL124, ASL221, BIO101, BIO123, BIO222, CHN100, CHN200, CJS121, CJS129, CJS221, COM223, ENG239, ENG240, ENG125, ENG126, ENG227, ENG228, ENG229, ENG232, ENG238, GER121, GER122, GLS121, PSC221, PSC222, PSY222, SOC222, SPN100, SPN200, or any additional Written & Oral Communication, Social & Behavioral Sciences, Arts & Humanities, or Science courses.

ASSOCIATE OF ARTS

ASSOCIATES OF ARTS – ENGLISH

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.

1718 Catalog
Effective Summer 2017

7202

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^^ **(required)**	1	*Take first semester*	
COMPUTER APPLICATIONS				
ITD122	Computer Applications for Professionals^ **(required)**	3	ITD100 **or** Proficiency	
ENGLISH COMPOSITION: ***6 credit hours required***				
ENG124	College Composition^	3	ENG011 **or** Proficiency	
ENG231	College Composition II	3	ENG124	
ENGLISH DEGREE ELECTIVES: ***20-21 credit hours required for English Majors. Choose any courses from the following four concentration areas. A maximum of 8 credit hours may be chosen from the additional AA options.***				
COMPOSITION ELECTIVES:				
ENG221	Technical Report Writing	3	ENG124	
ENG227	Writing for the Media	3	ENG124	
ENG228	Writing for the Web▲-	3	ENG124	
ENG229	Grant Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG232	Scriptwriting▲+	3	ENG124 **and** ENG227	
ENG238	Introduction to Creative Writing▲+	3	ENG124	
LITERATURE ELECTIVES: No duplications between this category and the Arts & Humanities category.				
ENG233	British Literature: Medieval to 1785	3	ENG124	
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	
ENG239	Film Appreciation▲+	3	ENG124	
ENG240	Women's Literature▲-	3	ENG124	
ENG241	Major Modern Writers	3	ENG124	
TECHNICAL COMMUNICATIONS ELECTIVES:				
ENG125	Technical Editing and Layout▲+	3	ENG124	
ENG126	Technical Grammar and Style▲+	3	ENG124	
ENG250	Technical Communications Internship	3	*Completed final semester*	
ADDITIONAL ASSOCIATE OF ARTS ELECTIVES: Maximum of 8 credit hours from the category.				
COM121	Effective Speaking	3		
SPN100	Elementary Spanish I	4		
SPN200	Elementary Spanish II▲+	4	SPN100	
CHN100	Elementary Chinese I	4		
CHN200	Elementary Chinese II	4	CHN100	

^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.
▲+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
SOCIAL & BEHAVIORAL SCIENCES: ***9 credit hours minimum***				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY122	Psychology of Adjustment	3	PSY121	
PSY123	Human Growth and Development	3	PSY121	
PSY124	Industrial/Organizational Psychology	3		
PSY221	Abnormal Psychology	3	PSY121	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
SOC225	Cultural Diversity **(required)**	3		
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^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***12 credit hours minimum. No duplications between this category and the Literature category.***				
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 & MATHEMATICS: ***10 credit hours minimum***				
Natural Sciences: 7 semester credit hours required. (Choose one 3 hour course and one 4 hour course.)				
BIO101	Intro to Anatomy and Physiology^⅄	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	Applying Chemistry to Society (lab)	4		
CHM101	Introduction to Chemistry^⅄	4	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org. and Bio Chemistry I (lab) ^⅄	4	CHM101 **or** Proficiency	
GEO141	Physical Geology (lab)	4		

^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.

1718 Catalog Effective Summer 2017	ASSOCIATES OF ARTS - ENGLISH	**7202**

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PHY101	Principles of Physics (lab) ^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **and** (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
PHY105	Astronomy (lab)	4		
Mathematics: 3 semester credit hours required				
MTH108	Explorations in Modern Mathematics	3	(MTH091 and MTH092) **or** Proficiency	
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
	TOTAL CREDIT HOURS	**61-63**		

^Based on SSC placement scores.
^^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.

1718 Catalog Effective Summer 2017	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 http://www.transfer.org/uselect 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^^ **(required)**	1	*Take first semester*
ENG124	College Composition^ **(required)**	3	ENG011 **or** Proficiency
ITD122	Computer Applications for Professionals^ **(required)**	3	ITD100 **or** Proficiency
Mathematics Elective 1		3	*Check for prerequisites*
Arts & Humanities Elective 2		3	*Check for prerequisites*
Social & Behavioral Science Elective [3]		3	*Check for prerequisites*
		16	
Second Semester			
ENG231	College Composition II **(required)**	3	ENG124
SOC225	Cultural Diversity **(required)**	3	
Natural Sciences Elective⅄ [4]		4	*Check for prerequisites*
Arts & Humanities Elective [2]		3	*Check for prerequisites*
Additional English Elective[5]		3	*Check for prerequisites*
		16	
Third Semester			
Arts & Humanities Elective [2]		3	*Check for prerequisites*
Natural Sciences Elective⅄ [4]		3	*Check for prerequisites*
Social & Behavioral Science Elective [3]		3	*Check for prerequisites*
Additional English Elective[5]		3	*Check for prerequisites*
Additional English Elective[5]		3	*Check for prerequisites*
		15	
Fourth Semester			
Arts & Humanities Elective [2]		3	*Check for prerequisites*
Additional English Elective[5]		4	*Check for prerequisites*
Additional English Elective[5]		3	*Check for prerequisites*
Additional English Elective[5]		3	*Check for prerequisites*
Additional English Elective[5]		3	*Check for prerequisites*
		16	
	TOTAL CREDITS	**63**	

^ Based on SSC placement scores.

^^ 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.

[1] Mathematics Elective: MTH108, MTH124, MTH125

[2] Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122,

[3] Social & Behavioral Science Elective: BUS122, BUS221, BUS222, PSC121, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC221

[4] Natural Sciences Elective: BIO101, BIO121, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, CHM100, CHM101, CHM105, CHM121, GEO141, PHY101, PHY121, PHY105

[5] Additional English Elective: CHN100, CHN200, COM121, ENG125, ENG126, ENG221, ENG227, ENG228, ENG229, ENG230, ENG232, ENG233, ENG234, ENG235, ENG236, ENG237, ENG238, ENG239, ENG240, ENG241, ENG250, SPN100, SPN200

ASSOCIATE OF ARTS

PSYCHOLOGY

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.

1718 Catalog
Effective Summer 2017

7210

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 APPLICATIONS				
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
WRITTEN & ORAL COMMUNICATION: *9 credit hours minimum*				
ENG124	College Composition^ (required)	3	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	Intergroup Communication	3	IDS102 **or** Proficiency	
BEHAVIORAL SCIENCES: *21 credit hours required*				
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY123	Human Growth and Development	3	PSY121	
PSY124	Industrial/Organizational Psychology	3		
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 SCIENCES: *6 credit hours minimum*				
SOC121	Sociology^	3	IDS102 **or** Proficiency	
SOC123	Dynamics of the Family	3		
SOC221	Social Problems	3	SOC121	
SOC225	Cultural Diversity (required)	3		
CJS121	Introduction to Criminal Justice	3		
ELECTIVES: *6 credit hours minimum*				
CJS221	Criminology	3	CJS121	
COM 223	Interviewing	3		
GER121	Gerontology	3		
GLS121	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	GLS121 **and** PSC121	
PSY122	Psychology of Adjustment	3	PSY121	
SWK125	Substance Abuse^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***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	
CHN100	Elementary Chinese I	4		
CHN200	Elementary Chinese II	4	CHN100	

^Based on SSC placement scores.
^^To promote student success, this course should be taken in the first semester.

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
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		
SPN100	Elementary Spanish I	4		
SPN200	Elementary Spanish II▲+	4	SPN100	
SCIENCES & MATHEMATICS				
***Natural Sciences:* 6 semester 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	
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	Applying Chemistry to Society (lab)	4		
CHM101	Introduction to Chemistry^⅄	4	[(MTH093 and MTH094) **or** Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., and Bio Chemistry I (lab)^⅄	4	CHM101 **or** Proficiency	
CHM205	Forensic Chemistry (lab)	4	CHM105 **or** CHM121 **or** CHM141	
GEO141	Physical Geology (lab)	4		
PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **and** (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
PHY105	Astronomy (lab)	4		
***Mathematics*: 3 semester credit hours required**				
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
	TOTAL CREDITS HOURS	**61-63**		

^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.

1718 Catalog Effective Summer 2017	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^	3	ENG011 **or** Proficiency
PHL122	Ethics	3	
PSY121	General Psychology^	3	IDS102 **or** Proficiency
Social Science Elective [4]		3	*Check for prerequisites*
		16	
Second Semester			
Elective[5]		3	*Check for prerequisites*
SOC225	Cultural Diversity	3	
Natural Sciences Elective ⅄ [2]		3-4	*Check for prerequisites*
PSY123	Human Growth and Development	3	PSY121
PSY124	Industrial/Organizational Psychology	3	
		15-16	
Third Semester			
Written & Oral Communication Elective [3]		3	*Check for prerequisites*
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
PSY220	Social Psychology	3	PSY121
PSY221	Abnormal Psychology	3	PSY121
PSY222	Psychological Aspects of Therapy^	3	IDS102 **or** Proficiency
		15	
Fourth Semester			
Arts & Humanities Elective [1]		3	*Check for prerequisites*
Natural Sciences Elective ⅄ [2]		3-4	*Check for prerequisites*
Written & Oral Communication Elective [3]		3	*Check for prerequisites*
Elective [5]		3	*Check for prerequisites*
PSY229	Psychological Methods	3	PSY123 **and** PSY220 **and** PSY221 **and** PSY222
		15-16	
	TOTAL CREDITS	**61-63**	

^Based on SSC placement scores.

^^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.

[1] Arts & Humanities Elective: ASL122, ASL124, ASL221, CHN100, CHN200, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, SPN100, SPN200

[2] Natural Sciences Elective: BIO121, BIO122, BIO124, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, BIO221, CHM100, CHM101, CHM105, CHM121, CHM205, GEO141, PHY101, PHY121, PHY105

[3] Written & Oral Communication Elective: COM121, COM122, COM123, ENG221, ENG230, ENG231

[4] Social Science Elective: CJS121, SOC121, SOC123, SOC221

[5] Elective: CJS221, COM223, GER121, GLS121, PSC121, PSC221, PSC222, PSY122 SWK125.

ASSOCIATE OF ARTS

APPLIED SOCIOLOGY

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.

1718 Catalog
Effective Summer 2017

7211

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 APPLICATIONS				
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
WRITTEN & ORAL COMMUNICATION: ***9 credit hours minimum***				
ENG124	College Composition **(required)**^	3	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	Intergroup Communication	3	IDS102 **or** Proficiency	
COM125	Introduction to Communication Theory^▲-	3	IDS102 **or** Proficiency	
SOCIOLOGICAL 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	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 SCIENCES: ***6 credit hours minimum***				
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY123	Human Growth and Development	3	PSY121	
PSY124	Industrial/Organizational Psychology	3		
PSY221	Abnormal Psychology	3	PSY121	
SOCIOLOGY ELECTIVES: ***6 credit 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		

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

APPLIED SOCIOLOGY

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
GLS121	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	GLS121 **and** PSC121	
SOC122	Society and Technology	3		
SOC222	Juvenile Delinquency	3	SOC121	
ARTS AND HUMANITIES: ***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	
CHN100	Elementary Chinese I	4		
CHN200	Elementary Chinese II	4	CHN100	
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		
SPN100	Elementary Spanish I	4		
SPN200	Elementary Spanish II▲+	4	SPN100	
SCIENCES AND MATHEMATICS				
Natural Sciences: ***6 semester 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	
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		
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO141	
CHM100	Applying Chemistry to Society (lab)	4		
CHM101	Introduction to Chemistry^⅄	4	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., & Bio Chemistry I (lab)^⅄	4	CHM101 **or** Proficiency	
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 footnotes on next page.

PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **and** (IDS102 or Proficiency)	
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
PHY105	Astronomy (lab)	4		
Mathematics: 3 semester credit hours required				
MTH124	Statistics^	3	MTH093 **or** Pre-CoMTH024 **or** Proficiency	
	TOTAL CREDITS HOURS	**61-64**		

^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.

1718 Catalog Effective Summer 2017	APPLIED SOCIOLOGY	7211

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^	3	ENG 011 **or** Proficiency
Written and Oral Communication Elective[3]		3	*Check for prerequisites*
SOC225	Cultural Diversity	3	
SOC121	Sociology^	3	IDS102 **or** Proficiency
		16	
Second Semester			
Sociology Elective[4]		3	*Check for prerequisites*
SOC221	Social Problems	3	SOC121
SOC123	Dynamics of the Family	3	
Behavioral Sciences Elective[5]		3	*Check for prerequisites*
Natural Sciences Elective⅄[2]		3-4	*Check for prerequisites*
		15-16	
Third Semester			
Natural Sciences Elective⅄[2]		3-4	*Check for prerequisites*
Written and Oral Communication Elective[3]		3	*Check for prerequisites*
SOC229	The African American Experience▲+	3	SOC121
SOC228	Social Structure and the Individual▲-	3	SOC121
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
		15-16	
Fourth Semester			
Arts and Humanities Elective[1]		3-4	*Check for prerequisites*
Sociology Elective[4]		3	*Check for prerequisites*
Behavioral Sciences Elective[5]		3	*Check for prerequisites*
PHL122	Ethics	3	
SOC230	Applied Sociological Methods	3	SOC123 **and** SOC221 **and** SOC225 **and** SOC228 **and** SOC229 **and** MTH124
		15-16	
	TOTAL CREDITS	**61-64**	

^Based on SSC placement scores.

^^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.

[1]Arts and Humanities Electives: ASL122, ASL124, ASL221, CHN100, CHN200, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, SPN100, SPN200

[2]Natural Sciences Electives: BIO121, BIO122, BIO124, BIO126, BIO127, BIO128, BIO129, BIO130, BIO221, CHM100, CHM101, CHM105, CHM121, CHM122, CHM205, GEO141, PHY101, PHY105, PHY121

[3]Written and Oral Communication Electives: COM121, COM122, COM123, COM125, ENG221, ENG230, ENG231,

[4]Sociology Electives: CJS121, CJS221, COM225, GER121, GER122, GLS121, PSC121, PSC221, PSC222, SOC122, SOC222

[5]Behavioral Sciences Electives: PSY121, PSY123, PSY124, PSY221

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

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

ASSOCIATE OF ARTS

COMMUNICATION

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.

1718 Catalog
Effective Summer 2017

7215

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		
COMMUNICATION ELECTIVES: ***9 credit hours minimum***				
COM223	Interviewing I▲-	3		
COM225	Sex, Gender, and Culture ▲+	3		
COM226	Organizational Communication▲-	3		
COM227	Intercultural Communication▲-	3		
COM228	Nonverbal Communication▲-	3		
COM229	Persuasion^▲+	3	IDS102 **or** Proficiency	
COM230	Argumentation▲-	3		
COMPUTER APPLICATIONS: 3 ***credit hours required***				
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
ENGLISH AND MODERN LANGUAGES: ***6 credit hours minimum***				
ENG124	College Composition^ (**required**)	3	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	SPN100	
CHN100	Elementary Chinese I	4		
CHN200	Elementary Chinese II	4	CHN100	

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

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1718 Catalog Effective Summer 2017	COMMUNICATION	**7215**

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SOCIAL & BEHAVIORAL SCIENCES: ***9 credit hours minimum***				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY122	Psychology of Adjustment	3	PSY121	
PSY123	Human Growth and Development	3	PSY121	
PSY124	Industrial / Organizational Psychology	3		
PSY220	Social Psychology	3	PSY121	
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 (**required**)	3		
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***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 & MATHEMATICS				
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		

^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.

1718 Catalog Effective Summer 2017	COMMUNICATION	**7215**

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	Applying Chemistry to Society (lab)	4		
CHM101	Introduction to Chemistry^⅄	4	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM105	Introduction to Forensic Science (lab)	3		
CHM121	Gen., Org., and Bio Chemistry I (lab)^⅄	4	CHM101 **or** Proficiency	
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	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **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 credit hours minimum*				
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
	TOTAL CREDIT HOURS	**61-65**		

^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.

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

1718 Catalog Effective Summer 2017	COMMUNICATION	7215

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^	3	ENG011 **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
COM121	Effective Speaking	3	
Natural Sciences Elective[2] ⅄		3-4	*Check for prerequisites*
COM122	Interpersonal Communication	3	
		16-17	
Second Semester			
English & Modern Languages Elective[5]		3-4	*Check for prerequisites*
COM125	Introduction to Communication Theory^▲-	3	IDS102 **or** Proficiency
Mathematics Elective[6]		3-4	*Check for prerequisites*
Communication Elective[3]		3	*Check for prerequisites*
Arts and Humanities Elective[4]		3	*Check for prerequisites*
		15-17	
Third Semester			
COM123	Small Group Communication^	3	IDS102 **or** Proficiency
Communication Elective[3]		3	*Check for prerequisites*
SOC225	Cultural Diversity	3	
Arts and Humanities Elective[4]		3	*Check for prerequisites*
Social & Behavioral Science Elective[1]		3	*Check for prerequisites*
		15	
Fourth Semester			
Natural Sciences Elective[2] ⅄		3-4	*Check for prerequisites*
COM126	Introduction to Mass Communication▲+	3	
Communication Elective[3]		3	*Check for prerequisites*
Social & Behavioral Science Elective[1]		3	*Check for prerequisites*
Arts and Humanities Elective[4]		3	*Check for prerequisites*
		15-16	
	TOTAL CREDITS	**61-65**	

^Based on SSC placement scores.

^^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.

[1] Social & Behavioral Science Electives: BUS122, BUS221, BUS222, PSC121, PSY121, PSY122, PSY123, PSY124, PSY220, SOC121, SOC122, SOC123, SOC221

[2] Natural Sciences Electives: BIO101, BIO121, BIO122, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, BIO221, CHM100, CHM101, CHM105, CHM121, CHM122, CHM205, GEO141, PHY101, PHY121, PHY122, PHY105

[3] Communication Electives: COM223, COM225, COM226, COM227, COM228, COM229, COM230

[4] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122

[5] English & Modern Languages Elective: CHN100, CHN200, ENG126, ENG221, ENG227, ENG228, ENG230, ENG231, SPN100, SPN200,

[6] Mathematics Elective: MTH124, MTH125

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

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

CAREER ENHANCEMENT CERTIFICATE

ENGLISH – TECHNICAL COMMUNICATIONS

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.

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1201

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	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^	3	ENG011 **or** Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency
COM223	Interviewing I▲-	3	
		9	
Second Semester			
ENG221	Technical Report Writing	3	ENG124
ENG125	Technical Editing and Layout▲+	3	ENG124
ENG227	Writing for Media	3	ENG124
		9	
	TOTAL CREDITS	**18**	

^ Based upon SSC placement score.
▲-Fall only courses. Please see your academic advisor for availability.
▲+Spring only courses. Please see your academic advisor for availability.

CAREER ENHANCEMENT CERTIFICATE

GRANT WRITING

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1718 Catalog
Effective Summer 2017

1203

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	ENG011 **or** Proficiency	
ENG231	College Composition II	3	ENG124	
ENG221	Technical Report Writing	3	ENG124	
ENG229	Grant Writing	3	ENG124	
ENG126	Technical Grammar and Style▲+	3	ENG124	
	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
ENG124	College Composition^	3	ENG011 **or** Proficiency
		3	
Second Semester			
ENG221	Technical Report Writing	3	ENG124
ENG231	College Composition II	3	ENG124
ENG126	Technical Grammar and Style▲+	3	ENG124
		9	
Third Semester			
ENG229	Grant Writing	3	ENG124
		3	
	TOTAL CREDITS	**15**	

^Based upon SSC placement score.
▲+Spring only courses. Please see your academic advisor for availability.

MATHEMATICS

Stark State COLLEGE

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

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.

1718 Catalog
Effective Summer 2017

7500

Arts and Sciences Division *Mathematics 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: ***6 credit hours minimum***				
ENG124	College Composition^ **(required)**	3	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 & BEHAVIORAL SCIENCES: ***6 credit hours minimum***				
PSC121	Political Science	3		
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	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***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 SCIENCES: ***7 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	
BIO124	Human Diseases	3	BIO122 **or** BIO123	
BIO126	Science, Energy, & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO129	Meteorology (lab)	3		

^Based upon SSC placement scores.
^^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.
▲-Fall 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	
CHM101	Introduction to Chemistry^⅄	4	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM121	Gen., Org., & Bio Chemistry I (lab)^⅄	4	CHM101 **or** Proficiency	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)^⅄	5	CHM101 **or** Proficiency	
CHM142	General Chemistry II (lab)	5	CHM141	
PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **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 MATHEMATICS & DATA ANALYSIS COURSES: ***26 credit hours required***				
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
MTH214	Discrete Mathematics^	3	MTH125 **or** MTH135 **or** Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 **or** (MTH125 and MTH130) **or** 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 ELECTIVES FROM THIS SHEET TO COMPLETE DEGREE [5]		**8-9**	*Check for prerequisites*	
	TOTAL CREDIT HOURS	**61-65**		

^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.

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

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

1718 Catalog Effective Summer 2017	MATHEMATICS	7500

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^	5	(MTH093 and MTH094) **or** Proficiency
ENG124	College Composition^ **(required)**	3	ENG011 **or** Proficiency
Social & Behavioral Sciences Elective [2]		3	*Check for prerequisite*
Arts & Humanities Elective [4]		3	*Check for prerequisite*
		15	
Second Semester			
MTH223	Analytic Geometry and Calculus I^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency
SOC225	Cultural Diversity **(required)**	3	
MTH214	Discrete Mathematics^	3	MTH125 **or** MTH135 **or** Proficiency
Arts & Humanities Elective [4]		3	*Check for prerequisite*
Written & Oral Communication Elective [3]		3	*Check for prerequisite*
		16	
Third Semester			
MTH224	Analytic Geometry and Calculus II	4	MTH223
		4	
Fourth Semester			
MTH225	Analytic Geometry and Calculus III	4	MTH224
MTH226	Linear Algebra ▲-	3	MTH224
Natural Sciences Elective ⅄ [1]		4-5	*Check for prerequisite*
Additional Elective [5]		3	*Check for prerequisite*
		14-15	
Fifth Semester			
MTH227	Ordinary Differential Equations ▲+	3	MTH224
Additional Elective [5]		3-4	*Check for prerequisite*
Natural Sciences Elective ⅄ [1]		3-5	*Check for prerequisite*
Additional Elective [5]		3	*Check for prerequisite*
		12-15	
	TOTAL CREDITS	**61-65**	

^ Based upon SSC placement scores.

^^ 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.

[1] Natural Sciences Electives: BIO121, BIO122, BIO124, BIO126, BIO127, BIO129, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101, PHY121, PHY122, PHY105, PHY221, PHY222

[2] Social & Behavioral Sciences Electives: Select from BUS122, BUS221, BUS222, PSC121, PSY121, SOC121,

[3] Written & Oral Communication Elective: COM122, COM123, COM125, COM121, ENG221, ENG230, ENG231

[4] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122

[5] Additional Electives: Any courses listed on this sheet not already being used to fulfill another requirement.

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

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

ASSOCIATE OF SCIENCE

MATHEMATICS – PRE-ACTUARIAL MATHEMATICS MAJOR

1718 Catalog
Effective Summer 2017

7501

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Arts and Sciences Division *Mathematics 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: ***6 credit hours minimum***				
ENG124	College Composition^ **(required)**	3	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 & BEHAVIORAL SCIENCES: ***9 credit hours required***				
SOC225	Cultural Diversity	3		
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***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 SCIENCES: ***7 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	
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		

^Based on SSC placement scores.
^^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.
▲-Fall only courses. Please see your academic advisor for availability.

Revised 2/2017

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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	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM121	Gen., Org., and Bio Chemistry I (lab)^⅄	4	CHM101 **or** Proficiency	
CHM122	Gen., Org., and Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)^⅄	5	CHM101 **or** Proficiency	
CHM142	General Chemistry II (lab)	5	CHM141	
PHY101	Principles of Physics (lab)^	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **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 MATHEMATICS & DATA ANALYSIS COURSES: ***32 credit hours required***				
BUS124	Business Analysis with Algebra	3		
ACC132	Financial Accounting	4	BUS124	
AOT226	Spreadsheets Microsoft Excel^	3	ITD100 or Proficiency	
MTH124	Statistics^ **(required)**	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency	
MTH214	Discrete Mathematics^	3	MTH125 **or** MTH135 **or** Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 **or** (MTH125 and MTH130) **or** 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**		

^ Based upon SSC placement scores.

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

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

1718 Catalog Effective Summer 2017	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^	5	(MTH093 **and** MTH094) or Proficiency
ENG124	College Composition^	3	ENG011 **or** Proficiency
BUS124	Business Analysis with Algebra	3	
BUS221	Microeconomics^	3	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 [4]		3	*Check for prerequisites*
		17	
Third Semester			
MTH224	Analytic Geometry and Calculus II	4	MTH223
Written & Oral Communication Elective [2]		3	*Check for prerequisites*
Natural Sciences Elective ➹ [1]		3-5	*Check for prerequisites*
Arts & Humanities Elective [4]		3	*Check for prerequisites*
		13-15	
Fourth Semester			
MTH124	Statistics **(required)**	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
MTH226	Linear Algebra ▲-	3	MTH224
SOC225	Cultural Diversity	3	
Core Mathematics and Data Analysis Elective [3]		3-4	*Check for prerequisites*
Natural Sciences Elective ➹ [1]		3-5	*Check for prerequisites*
		15-18	
	TOTAL CREDITS	**60-65**	

^Based upon SSC placement score.

^^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.

[1]Natural Sciences Electives: BIO121, BIO122, BIO124, BIO126, BIO127, BIO129, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101, PHY121, PHY122, PHY105, PHY221, PHY222

[2]Written & Oral Communication Elective: COM122, COM123, COM125, COM121, ENG221, ENG230, ENG231

[3]Core Mathematics and Data Analysis Elective: MTH225, MTH227, AOT226

[4]Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122

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

SCIENCES

Stark State COLLEGE

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ASSOCIATE OF APPLIED SCIENCE

BIOTECHNOLOGY

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Arts and Sciences Division *Biology Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO241	General Genetics (lab) ▲-	4	BIO141	
BIO242	Cell & Molecular Biology (lab) ▲+	4	BIO141	
BST120	Introduction to Biotechnology ▲-	1		
BST121	Basic Biotechnology Methods (lab)	1	Pre-Co-BST120	
BST122	Advanced Biotechnology Methods^(lab) ▲+	3	BST121 **and** (MTH093 and MTH094) **or** Proficiency	
BST221	Cell and Tissue Culture (lab) (1st 8-weeks) ▲-	2	BST122	
BST225	Biotechnology Instrumentation (lab) (2nd 8-weeks) ▲-	2	BST122	
BST240	Bioinformatics (lab) ▲+	3		
BST250	Bioprocess and Manufacturing (lab) ▲+	3	BST122	
ENV125	Intro to HAZ Mat and Waste Management	1		
ENV221	OSHA 40 hour HAZWOPER	2		
ITD122	Computer Applications for Professionals	3	ITD100 **or** Proficiency	
SCI273	Special Topics in Science	3	*Sophomore in program*	
	Total	**32**		

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	ENG011 **or** Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH125 **or** MTH124	College Algebra^ **or** Statistics	4 **or** 3	*Check for prerequisites*	
BIO141	General Biology I (lab)	4		
BIO221	Principals of Microbiology	4	BIO141 **or** BIO122 **or** BIO123	
CHM141	General Chemistry I (lab)⅄	5	CHM101 **or** Proficiency	
CHM142	General Chemistry II (lab)	5	CHM141	
PHL122	Ethics	3		
	Total	**31-32**		
	TOTAL CREDIT HOURS	**63-64**		

^ Based on SSC placement scores

^^ 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, or 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.

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	ENG011 **or** Proficiency
ENV125	Intro to HAZ Mat and Waste Management	1	
BIO141	General Biology I (lab)	4	
BST120	Introduction to Biotechnology▲-	1	
BST121	Basic Biotechnology Methods (lab)	1	Pre-Co-BST120
		14	
Second Semester			
MTH125	College Algebra^	4	
or	**or**	**or**	*Check for prerequisites*
MTH124	Statistics	3	
ENG221	Technical Report Writing	3	ENG124
ENV221	OSHA 40 hour HAZWOPER	2	
BIO221	Principles of Microbiology	4	BIO141 **or** BIO122 **or** BIO123
BST122	Advanced Biotechnology Methods^(lab) ▲+	3	BST121 **and** (MTH093 and MTH094) **or** Proficiency
		15-16	
Summer			
PHL122	Ethics	3	PHL122
SCI273	Special Topics in Science	3	*Sophomore in program*
		6	
Third Semester			
BIO241	General Genetics (lab) ▲-	4	BIO141
CHM141	General Chemistry I (lab)⅄	5	CHM101 **or** Proficiency
BST221	Cell & Tissue Culture (lab) (1st 8-weeks) ▲-	2	BST122
BST225	Biotechnology Instrumentation (lab) (2nd 8-weeks) ▲-	2	BST122
		13	
Fourth Semester			
BST240	Bioinformatics▲+	3	
BST250	Bioprocesses and Manufacturing (lab) ▲+	3	BST122
BIO242	Cell and Molecular Biology (lab) ▲+	4	BIO141
CHM142	General Chemistry II (lab)	5	CHM141
		15	
	TOTAL CREDITS	**63-64**	

^ Based on SSC placement scores

^^ 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, or 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.

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. 3357:15-13-06.

1718 Catalog
Effective Summer 2017

1260

Arts and Sciences Division *Chemistry 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	ENG011 **or** Proficiency	
SOCIAL & BEHAVIORAL SCIENCES: ***6 credit hours minimum***				
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY124	Industrial/Organizational Psychology	3		
SOC121	Sociology^	3	IDS102 **or** Proficiency	
SOC122	Society and Technology	3		
ARTS & HUMANITIES: ***6 credit hours minimum***				
SOC225	Cultural Diversity **(required)**	3		
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 *(recommended)*	3		
MATHEMATICS: ***9 credit hours minimum***				
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.* **(required)**	5	(MTH093 and MTH094) **or** Proficiency	
MTH223	Analytic Geometry and Calculus I^**(required)**	4	MTH135	
MTH224	Analytic Geometry and Calculus II	4	MTH223	
MTH225	Analytic Geometry and Calculus III*	4	MTH224	

^ Based on SSC placement scores
^^ To promote student success, this course should be taken in the first semester
*Required if also taking PHY222

NATURAL SCIENCES: ***15 credit hours required***				
CHM141	General Chemistry I (lab)	5	CHM101 **or** Proficiency	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
CHM241	Organic Chemistry I (lab)	5	CHM142	
CONCENTRATION CORE: ***Choose from the following groups:***				
CHM242	Organic Chemistry II (lab) **(required)**	5	CHM241	
AND				
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
OR				
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	
OR				
CHM243	Biochemistry I▲-	3	CHM121 **or** CHM141	
CHM244	Biochemistry II▲+	3	CHM243	
BIO241	General Genetics (lab) ▲-	4	BIO141	
ELECTIVES – Select additional courses to complete the total of 60-65 credit hours.				
CHM105	Introduction to Forensic Science (lab)	3		
CHM205	Forensic Chemistry (lab)	4	CHM105 **or** CHM121 **or** CHM141	
BIO141	General Biology I (lab)**	4		
BIO142	General Biology II (lab) ▲+	4		
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
ENG231	College Composition II	3	ENG124	
CSE122	Programming Logic and Problem Solving^	3	(IDS102 or Proficiency) **and** (ITD100 or Proficiency)	
GEO141	Physical Geology (lab)	4		
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
PHY105	Astronomy (lab)	4		
SCI273	Special Topics in Science	3	*Sophomore in Program*	
	TOTAL CREDIT HOURS	**60-65**		

^ 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 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- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
CHM141	General Chemistry I (lab)	5	CHM101 **or** Proficiency
SOC225	Cultural Diversity	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
MTH135	Precalculus^	5	(MTH093 and MTH094) **or** Proficiency
		17	
Second Semester			
CHM142	General Chemistry II (lab) ▲+	5	CHM141
Social & Behavioral Sciences Elective [1]		3	*Check for prerequisite*
Arts & Humanities Elective [2]		3	*Check for prerequisite*
MTH223	Analytic Geometry and Calculus I^	4	MTH135
		15	
Third Semester			
CHM241	Organic Chemistry I (lab)	5	CHM142
Concentration Core[4]		3-5	*Check for prerequisite*
Social & Behavioral Sciences Elective [1]		3	*Check for prerequisite*
Elective [3,5]		3-4	*Check for prerequisite*
		14-17	
Fourth Semester			
CHM242	Organic Chemistry II (lab)	5	CHM241
Concentration Core [4]		4-7	*Check for prerequisite*
Elective(s) [5,6]		3-4	*Check for prerequisite*
		12-16	
	TOTAL CREDITS	**60-65**	

^Based on SSC placement scores

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

[1] Social & Behavioral Science Elective: BUS122, PSY121, PSY124, SOC121, SOC122

[2] Arts & Humanities Elective: Select from ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122 *(recommended)*

[3] Mathematics Electives: MTH224, MTH225*

[4] Concentration Core Options: (PHY121 and PHY122) or (PHY221 and PHY222) or (CHM243, CHM244 and BIO241)

[5] *Electives:* BIO141**, BIO142, CHM105, CHM205, COM121, COM122, CSE122, ENG231, GEO141, ITD122, MTH124, PHY105, SCI273

[6] Select additional courses to complete the total of 60-65 credit hours.

* Required if also taking PHY222

** Required if also taking BIO241

ASSOCIATE OF SCIENCE

BIOLOGY

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.

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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 AND ORAL COMMUNICATION: ***6 credit hours minimum***				
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 & BEHAVIORAL SCIENCES: ***6 credit hours minimum***				
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***6 credit hours minimum***				
SOC225	Cultural Diversity **(required)**	3		
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	(MTH093 and MTH094) **or** Proficiency	
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.* **(recommended)**	5	(MTH093 and MTH094) **or** Proficiency	

^ Based on SSC placement scores

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

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NATURAL SCIENCES: ***14 credit hours required***				
BIO141	General Biology I (lab)	4		
CHM141	General Chemistry I (lab)⅄	5	CHM101 **or** Proficiency	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
BIOLOGY CORE: ***12 credit hours minimum***				
BIO142	General Biology II (lab) **(required)** ▲+	4		
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	
ECO241	Ecology (lab) ▲-	4	BIO142	
CONCENTRATION GROUP ELECTIVES: ***Choose from one of the following 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	MTH093 **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	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
OR				
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**		

^ Based on SSC placement scores

⅄ 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.

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

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

1718 Catalog Effective Summer 2017	BIOLOGY	1270

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 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- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
BIO141	General Biology I (lab)	4	
CHM141	General Chemistry I^ (lab)⅄	5	CHM101 **or** Proficiency
Mathematics Elective [4]		4-5	*Check for prerequisite*
		14-15	
Second Semester			
BIO142	General Biology II (lab) ▲+	4	
CHM142	General Chemistry II (lab) ▲+	5	CHM141
ENG124	College Composition^	3	ENG011 **or** Proficiency
Social & Behavioral Science Elective [2]		3	*Check for prerequisite*
		15	
Summer			
Written & Oral Communication Elective [1]		3	*Check for prerequisite*
Concentration Group Elective [6]		3-5	*Check for prerequisite*
		6-8	
Third Semester			
Biology Core Elective [5]		4	*Check for prerequisite*
SOC225	Cultural Diversity	3	
Arts & Humanities Elective [3]		3	*Check for prerequisite*
Concentration Group Elective [6]		3-5	*Check for prerequisite*
		13-15	
Fourth Semester			
SCI273	Special Topics in Science	3	*Sophomore in program*
Social & Behavioral Science Elective [2]		3	*Check for prerequisite*
Biology Core Elective [5]		4	*Check for prerequisite*
Concentration Group Elective [6]		3-5	*Check for prerequisite*
		13-15	
	TOTAL CREDITS	**60-63**	

^ Based on SSC placement scores

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

⅄ 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.

[1] Written & Oral Communication Elective: ENG221, ENG231, COM121, COM122

[2] Social & Behavioral Sciences Elective: PSY121, SOC121, BUS122

[3] Arts & Humanities Elective: HIS121, HIS122, ENG233, ENG234, ENG236, ENG237, PHL122 *(recommended)*

[4] Mathematics Elective: MTH125 or MTH135 *(recommended)*

[5] Biology Core Elective: BIO221, BIO241, BIO242, ECO241

[6] Concentration Group Electives: (CHM241 and CHM242) or (CHM243, CHM244, MTH124) (CHM105, CHM205, MTH124) or (PHY121 and PHY122)

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

ASSOCIATE OF SCIENCE

PRE-MEDICAL PROFESSIONAL CONCENTRATION (Pre-Pharmacy, Pre-Medicine, Pre-Dentistry, Pre-Veterinary)

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.

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1280

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 & ORAL COMMUNICATION: ***6 credit hours minimum***				
ENG124	College Composition^ **(required)**	3	ENG011 **or** Proficiency	
ENG231	College Composition II	3	ENG124	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
SOCIAL & BEHAVIORAL SCIENCES: ***6 credit hours minimum***				
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***6 credit hours minimum***				
SOC225	Cultural Diversity **(required)**	3		
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: 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	(MTH093 and MTH094) **or** Proficiency	
NATURAL SCIENCES: ***13 credit hours minimum (1 lab course required)***				
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
CHM141	General Chemistry I (lab)^⮜	5	CHM101 **or** Proficiency	
	GENERAL EDUCATION CREDIT TOTAL	**37**		

^Based upon SSC placement score
^^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 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.
▲+Spring only courses. Please see your academic advisor for availability.

1718 Catalog Effective Summer 2017	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
CONCENTRATION CORE				
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
CHM241	Organic Chemistry I (lab)	5	CHM142	
CHM242	Organic Chemistry II (lab)	5	CHM241	
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
MTH223	Analytic Geometry –Calculus I^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
CONCENTRATION ELECTIVES – ***Select additional courses to complete 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	
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO144	
BIO241	General Genetics (lab) ▲-	4	BIO141	
BIO242	Cell & Molecular Biology (lab) ▲+	4	BIO141	
CHM243	Biochemistry I▲-	3	CHM141	
CHM244	Biochemistry II▲+	3	CHM243	
BUS122	Basic Economics	3	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**		

^Based upon SSC placement score
*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.
▲+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 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.

1718 Catalog Effective Summer 2017	PRE-MEDICAL PROFESSIONAL CONCENTRATION (Pre-Pharmacy, Pre-Medicine, Pre-Dentistry, Pre-Veterinary)	1280

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 (lab)^ ⅄	5	CHM101 **or** Proficiency
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.*	5	(MTH093 and MTH094) **or** Proficiency
		15	
Second Semester			
BIO142	General Biology II (lab) ▲+	4	
CHM142	General Chemistry II (lab)	5	CHM141
ENG124	College Composition	3	ENG011 **or** Proficiency
Arts & Humanities Elective[3]		3	*Check for prerequisite*
		15	
Third Semester (Summer)			
SOC225	Cultural Diversity	3	
Social and Behavioral Sciences Elective[2]		3	*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 Communication Elective[1]		3	*Check for prerequisite*
		12	
Fifth Semester			
CHM242	Organic Chemistry II (lab)	5	CHM241
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
Social and Behavioral Sciences Elective[2]		3	*Check for prerequisite*
Concentration Elective[4*]		3 - 4	*Check for prerequisite*
		14-15	
	TOTAL CREDITS	**62-63**	

^Based upon SSC placement score

^^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 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

[2] Social and Behavioral Sciences Electives: BUS122, PSY121, SOC121

[3] Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122 ***(recommended)***

[4] Concentration Electives: BIO121, BIO122, BIO221, BIO241, BIO242, CHM243, CHM244, BUS122, PHY121, PHY222, SCI273

* 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.

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

ASSOCIATE OF SCIENCE

ASSOCIATE OF SCIENCE – GENERAL

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.

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7106

Arts and Sciences Division *Physics Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
FRESHMAN EXPERIENCE				
SSC101	Student Success Seminar^^	1	*Take first semester*	
COMPUTER APPLICATIONS				
ITD122	Computer Applications for Professionals^ **(required)**	3	ITD100 **or** Proficiency	
WRITTEN & ORAL COMMUNICATION: ***6 credit hours minimum***				
ENG124	College Composition^ (**required**)	3	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 & BEHAVIORAL SCIENCES: ***9 credit hours minimum***				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 **or** Proficiency	
PSY122	Psychology of Adjustment	3		
PSY123	Human Growth & Development	3	PSY121	
PSY124	Industrial/Organizational Psychology	3		
PSY220	Social Psychology	3	PSY121	
PSY221	Abnormal Psychology	3	PSY121	
SOC121	Sociology^	3	IDS102 **or** Proficiency	
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^	3	IDS102 **or** Proficiency	

^ 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.

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ARTS & HUMANITIES: ***6 credit hours minimum***				
SOC225	Cultural Diversity (**required**)	3		
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		
SCIENCES & 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) ▲-	3		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab) ▲+	4		
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	Applying Chemistry to Society (lab)	4		
CHM101	Introduction to Chemistry^	4	[(MTH093 and MTH094) or Proficiency] **or** MTH105 **or** MTH106 **or** MTH107	
CHM105	Introduction to Forensic Science(lab)	3		
CHM205	Forensic Chemistry(lab)	4	CHM105 **or** CHM121 **or** CHM141	
CHM121	Gen., Org., & Bio Chemistry I (lab)	4	CHM101 **or** Proficiency	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)	5	CHM101 **or** Proficiency	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	

^ 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.

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CHM241	Organic Chemistry I (lab)	5	CHM142	
CHM242	Organic Chemistry II (lab)	5	CHM241	
ECO241	Ecology (lab) ▲-	4	BIO142	
GEO141	Physical Geology (lab)	4		
PHY101	Principles of Physics^ (lab)	4	[(MTH093 or Proficiency) or MTH105 or MTH106 or MTH107 or MTH108] **and** (IDS102 or Proficiency)	
PHY105	Astronomy (lab)	4		
PHY121	College Physics I with Algebra (lab)^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
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	
***Mathematics*: 3-5 credit hours minimum**				
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** 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	(MTH093 and MTH094) **or** 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 ELECTIVES TO COMPLETE DEGREE*		**20-25**		
	TOTAL CREDIT HOURS *(60 credit minimum)*	**60-65**		

^ Based on SSC placement scores

*Additional Electives: Choose from previous pages or the additional electives list shown on the next page.

▲-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 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. Students may seek approval from the department chair for other related electives as a rare exception. Please see your academic advisor for assistance with course selection.

ADDITIONAL ARTS & SCIENCES COURSES	
Biology	**Biotechnology**
BIO123 Principles of Human Structure & Function (lab)# (5)	BST120 Introduction to Biotechnology (1)
BIO124 Human Diseases (3)	BST121 Basic Biotech Methods (lab) (1)
BIO125 Medical Terminology (3)	BST122 Advanced Biotech Methods (lab) (3) ▲+
BIO222 Pharmacology (3)	BST130 Biotech Seminar I (1) ▲-
	BST221 Cell & Tissue Culture (2) ▲-
Chemistry	BST222 Cellular & Subcellular Separation (3) ▲-
CHM243 Biochemistry I (3) ▲-	BST225 Biotech Instrumentation (lab) (2) ▲-
CHM244 Biochemistry II (3) ▲+	BST240 Bioinformatics (lab) (3) ▲+
	BST250 Bioprocesses & Manufacturing (lab)(3) ▲+
English	
ENG125 Technical Editing & Layout (3) ▲+	
ENG227 Writing for Media (3)	**Computational Science**
ENG228 Writing for the Web (3) ▲-	CST120 Computational Science Methods (3)
ENG229 Grant Writing (3)	CST121 Modeling & Simulation (lab) (3)
CHN100 Elementary Chinese I (4)	CST221 Computational Biology (4)
CHN200 Elementary Chinese II (4)	
SPN100 Elementary Spanish I (4)	**Sustainable Agriculture**
SPN200 Elementary Spanish II (4) ▲+	AGR121 Introduction to Sustainable Plant Systems (lab) (4) ▲-
	AGR122 Plant Propagation Methods for Sustainable Agricultural Systems (lab) (4) ▲+
Social and Behavioral Sciences	AGR123 Advanced Methods for Sustainable Agricultural Production (lab) (4) ▲+
GER121 Introduction to Gerontology (3)	
GER122 Psychosocial Aspects of Aging (3)	**Sciences**
GLS121 Introduction to Law and the Legal System (3)	SCI273 Special Topics in Science (3)
PSC221 State and Local Government (3)	
PSC222 Public Policy (3)	**Communications**
PSY222 Psychological Aspects of Therapy (3)	COM223 Interviewing (3) ▲-
SOC222 Juvenile Delinquency (3)	

#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

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.

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Arts and Sciences Division *Physics 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: ***6 credit hours minimum***				
ENG124	College Composition^ **(required)**	3	ENG011 **or** Proficiency	
ENG221	Technical Report Writing (recommended)	3	ENG124	
ENG231	College Composition II	3		
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
SOCIAL & BEHAVIORAL SCIENCES: 6 ***credit hours minimum***				
PSY121	General Psychology^	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		
BUS122	Basic Economics^	3	IDS102 **or** Proficiency	
BUS221	Microeconomics^	3	IDS102 **or** Proficiency	
BUS222	Macroeconomics^	3	IDS102 **or** Proficiency	
ARTS & HUMANITIES: ***6 credit hours minimum***				
SOC225	Cultural Diversity (**required**)	3		
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		

^ Based on SSC placement scores

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

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Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MATHEMATICS: ***9 credit hours minimum***				
MTH135	Precalculus^ – *A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.* **(required)**	5	(MTH093 and MTH094) **or** Proficiency	
MTH223	Analytic Geometry and Calculus I^	4	MTH135 **or** (MTH125 and MTH130) **or** Proficiency	
NATURAL SCIENCES: ***8-10 credit hours required*** **Choose 1 Option Below**				
Pre-Astronomy/Astrophysics				
PHY105	Astronomy (lab)	4		
CHM141	General Chemistry I (lab)	5	CHM101 or Proficiency	
Pre-Materials Science				
CHM141	General Chemistry I (lab)	5	CHM101 or Proficiency	
CHM142	General Chemistry II (lab) ▲+	5	CHM141	
Pre-Biophysics (Choose 2 of 3)				
BIO141	General Biology I	4		
BIO142	General Biology II▲+	4		
CHM141	General Chemistry I (lab)	5	CHM101 or Proficiency	
Lab Technician				
CHM141	General Chemistry I (lab)	5	CHM101 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 Sciences 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		
CST120	Computational Science Methods	3	MTH135	
CST121	Modeling & Simulation	3	MTH221 **or** MTH223	
ITD122	Computer Applications for Professionals^	3	ITD100 **or** Proficiency	
SCI273	Special Topics in Science	3	*Sophomore in program*	
	TOTAL CREDIT HOURS *(60 credits minimum)*	**60-65**		

^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.

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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 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		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester.*
Natural Sciences Elective [4]		3-5	*Check for prerequisite*
ENG124	College Composition^	3	ENG011 **or** Proficiency
SOC225	Cultural Diversity	3	
MTH135	Precalculus^	5	(MTH093 and MTH094)
		15-17	**or** Proficiency
Second Semester			
Written and Oral Communication Elective [1]		3	*Check for prerequisite*
Natural Sciences Elective [4]		4-5	*Check for prerequisite*
Concentration Elective [4,5,6]		3-4	*Check for prerequisite*
MTH223	Analytic Geometry and Calculus I^	4	MTH135 **or** (MTH125 and MTH130)
		14-16	**or** Proficiency
Third Semester			
Arts & Humanities Elective [3]		3	*Check for prerequisite*
Social & Behavioral Science Elective [2]		3	*Check for prerequisite*
		6	
Fourth Semester			
PHY221	General Physics I with Calculus (lab) ▲-	5	MTH223 **and** Co-MTH224
MTH224	Analytic Geometry and Calculus II	4	MTH223
Social & Behavioral Science Elective [2]		3	*Check for prerequisite*
		12	
Fifth Semester			
MTH225	Analytic Geometry and Calculus III	4	MTH224
PHY222	General Physics II with Calculus (lab) ▲+	5	PHY221 **and** MTH224 **and** Co-MTH225
Concentration Elective [4,5,6]		4-5	*Check for prerequisite*
		13-14	
	TOTAL CREDITS	**60-65**	

^Based on SSC placement scores
^^To promote student success, this course should be taken in the first semester
[1] Written and Oral Communication Electives: ENG221, ENG231, COM121, COM122
[2] Social & Behavioral Science Elective: BUS122, BUS221, BUS222, PSC121, PSY121, PSY124, PSY220, SOC121, SOC122
[3] Arts & Humanities Elective: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, HIS221, HIS222, PHL122
[4] Natural Sciences Electives: PHY105, CHM141, CHM142, BIO141, BIO142, CH205
[5] Concentration Elective: CHM105, CST120, CST121, ITD122, MTH226, MTH227, SCI273
[6] Select additional courses to complete the total of 60-65 credit hours
▲-Fall only courses. Please see your academic advisor for availability.
▲+Spring only courses. Please see your academic advisor for availability.

CAREER ENHANCEMENT CERTIFICATE

BIOTECHNOLOGY

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.

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Arts and Sciences Division *Biology Department*

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BST120	Introduction to Biotechnology	1		
BST121	Basic Biotechnology Methods (lab)	1	Pre-Co-BST120	
BST122	Advanced Biotechnology Methods^(lab) ▲+	3	BST121 **and** [(MTH093 and MTH094)++ or Proficiency)]	
BST130	Biotechnology Seminar I▲-	1		
BIOTECHNOLOGY ELECTIVE: Select one course below*				
BST221	Cell and Tissue Culture▲-	2	BST122	
BST240	Bioinformatics▲+	3		
MATHEMATICS: ***Select one course below***				
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency	
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
SCIENCES: ***Select one course below***				
BIO141	General Biology I (lab)	4		
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO141	
CHM141	General Chemistry I(lab)⍋	5	CHM101 **or** Proficiency	
	TOTAL CREDIT HOURS	**15-18**		

^Based upon SSC placement score

⍋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.

***Students may elect to take BST221 or BST240 depending on their desired career path.

****Students may elect to take BIO141 or CHM141 depending on their desired career path.

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

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

Please see reverse side for Biotechnology specialization tracks.

All courses listed as options are required for the AAS Degree in Biotechnology.

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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.

GENERAL BIOTECHNOLOGY LAB TECHNICIAN TRACK

First Semester		Credit Hours	Pre- and Co-requisites
BIO141	General Biology I (lab)**	4	
or	**or**		
CHM141	General Chemistry I (lab)⍋**	5	CHM101 **or** Proficiency
MTH125	College Algebra^	4	(MTH093 and MTH094) **or** Proficiency
BST120	Introduction to Biotechnology	1	
BST121	Basic Biotechnology Methods (lab)	1	Pre-Co-BST120
		10-11	
Second Semester			
BST122	Advanced Biotechnology Methods^(lab) ▲+	3	BST121 **and** [(MTH093 and MTH094)++ or Proficiency]
BST130	Biotechnology Seminar I▲-	1	
BST240	Bioinformatics*▲+	3	
or	**or**		
Summer Semester			
BST221	Cell and Tissue Culture*▲-	2	BST122
		6-7	
		16-18	

CLINICAL-BASED STERILE TECHNIQUE TRACK

First Semester		Credit Hours	Pre- and Co-requisites
BIO221	Principles of Microbiology (lab)	4	BIO122 **or** BIO123 **or** BIO141
MTH124	Statistics^	3	MTH093 **or** Pre-Co-MTH024 **or** Proficiency
BST120	Introduction to Biotechnology	1	
BST121	Basic Biotechnology Methods (lab)	1	Pre-Co-BST120
		9	
Second Semester			
BST122	Advanced Biotechnology Methods^(lab) ▲+	3	BST121 **and** [(MTH093 and MTH094)++ or Proficiency]
BST130	Biotechnology Seminar I▲-	1	
		4	
Summer Semester			
BST221	Cell and Tissue Culture*▲-	2	BST122
		2	
	TOTAL CREDITS	**15**	

^Based upon SSC placement score

⍋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.

***Students may elect to take BST221 or BST240 depending on their desired career path.

****Students may elect to take BIO141 or CHM141 depending on their desired career path.

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

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

All courses listed as options are required for the AAS Degree in Biotechnology.

CAREER ENHANCEMENT CERTIFICATE

Mercy Medical Pre-Radiology

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.

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1290

Arts and Sciences Division *Biology Department*

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		
WRITTEN & ORAL COMMUNICATIONS: ***6 credit hours minimum***				
ENG124	College Composition^ (**required**)	3	ENG011 **or** Proficiency	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
COM123	Small Group Communication	3	IDS102 **or** Proficiency	
SOCIAL & BEHAVIORAL SCIENCES: ***3 credit hours minimum***				
PSY121	General Psychology^ (recommended)	3	IDS102 **or** Proficiency	
PSY122	Psychology of Adjustment	3		
PSY123	Human Growth & Development	3	PSY121	
MATHEMATICS: ***3 credit hours minimum***				
MTH105	Math for Allied Health^	3	(MTH091 and MTH092) **or** Proficiency	
MTH124	Statistics^Ω	4	MTH093 **or** Pre-Co-MTH024 **or** Proficiency	
MTH125	College Algebra^Ω	3	(MTH093 and MTH094) **or** Proficiency	
	TOTAL CREDIT HOURS	**24-25**		

^Based upon SSC placement score

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

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

Contact your academic advisor for a complete list of requirements to apply to Mercy Medical Center: School of Radiology
Minimum grade of "C" is required in all courses in order to apply to Mercy Medical Center: School of Radiology.

1718 Catalog Effective Summer 2017	CAREER ENHANCEMENT CERTIFICATE Mercy Medical Pre-Radiology	1290

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- and Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
BIO121	Anatomy & Physiology I (lab)	4	BIO101 **or** Proficiency
BIO125	Medical Terminology	3	
ENG124	College Composition^	3	ENG011 **or** Proficiency
		11	
Second Semester			
BIO122	Anatomy & Physiology II (lab)	4	BIO121 **or** BIO123
Written & Oral Communications[1]		3	*Check for prerequisite*
Social & Behavioral Sciences[2]		3	*Check for prerequisites*
Mathematics[3]		3-4	*Check for prerequisites*
		13-14	
	TOTAL CREDITS	**24-25**	

^Based upon SSC placement score

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

[1] Written & Oral Communications: COM121, COM122, COM123

[2] Social & Behavioral Sciences: PSY121 (recommended), PSY122, PSY123

[3] Mathematics: MTH105, MTH124, MTH125

Contact your academic advisor for a complete list of requirements to apply to Mercy Medical Center: School of Radiology

Minimum grade of "C" is required in all courses in order to apply to Mercy Medical Center: School of Radiology

CAREER ENHANCEMENT CERTIFICATE

Intensive Sustainable Agriculture

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.

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Arts & Sciences Division *Biology Department*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AGR121	Introduction to Sustainable Plant Systems^ (lab)▲-	4	Pre-co- (MTH093 and MTH094) or Proficiency	
AGR122	Plant Propagation Methods for Sustainable Agriculture Systems (lab) ▲+	4	AGR121 Pre-co - MTH125	
AGR123	Advanced Methods for Sustainable Agricultural Production (lab) ▲+	4	AGR121 Pre-co - MTH125	
	Total	**12**		

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		
BIO142	General Biology II (lab)	4		
BUS122	Basic Economics^	3	IDS102 or Proficiency	
MTH125	College Algebra^	4	(MTH093 and MTH094) or Proficiency	
	Total	**16**		
	TOTAL CREDIT HOURS	**28**		

^Based upon SSC placement score
^^To promote student success, this course should be taken in the first semester
▲-Fall only courses. Please see your academic advisor for availability.
▲+Spring 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 students who plan to finish in one year.

First Semester		Credit Hours	Pre- or Co-requisites
SSC101	Student Success Seminar^^	1	*Take first semester*
AGR121	Introduction to Sustainable Plant Systems^ (lab) ▲-	4	Pre-co-(MTH093 and MTH094) **or** Proficiency
BIO126	Science, Energy and the Environment (lab)	4	
BUS122	Basic Economics^	3	IDS102 **or** Proficiency
		12	
Second Semester			
AGR122	Plant Propagation Methods for Sustainable Agriculture Systems (lab) ▲+	4	AGR121 **and** Pre-co-MTH125
AGR123	Advanced Methods for Sustainable Agricultural Production (lab) ▲+	4	AGR121 **and** Pre-co-MTH125
MTH125	College Algebra	4	(MTH093 and MTH094) **or** Proficiency
BIO142	General Biology II	4	
		16	
Third Semester			
SCI273	Special Topics in Science	3	*Sophomore in program*
		3	
	TOTAL CREDITS	**28**	

^Based upon SSC placement score

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

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

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

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:

ACC124 INDIVIDUAL TAXATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines principles of taxation for individuals, including computation of income and deductions, both personal and for the taxpayer's businesses and income-producing properties. In addition, cost recovery, gains and losses, tax credits, and the overall classifications and filing statuses are discussed. Students will prepare a comprehensive tax case on IRS tax forms to gain practical knowledge. Upon completion of the course, the student should be able to analyze complex tax scenarios and determine their impact on an individual's tax liability.

Pre-reqs:

ACC132	Can be Taken Concurrently

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 Fall 2005.

Pre-reqs:

Business/ Entrepreneurial

Accounting/Finance

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

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 is the first in a two-course sequence in the detailed study of accounting theory. It is a study of the conceptual framework of accounting, disclosure standards for general purpose financial statements, and measurement standards for assets, and associated revenues and expenses, including application of compound interest techniques. Upon completion, students should be able to demonstrate competence in applying generally accepted accounting principles in the preparation of financial statements.

Pre-reqs:

ACC132

Business/ Entrepreneurial

Accounting/Finance

ACC222 INTERMEDIATE ACCT II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This is the completion of a two-course sequence in the study of accounting theory. In this semester, students become more involved in the discussion of the intention of management in engaging in certain types of transactions and the impact of alternate methods of reporting in the financial statements. The subject areas studied include long-term debt, intercorporate investments, corporate equity matters, earnings per share, revenue recognition, pensions, leases, cash flow statements, and accounting for income taxes. Some review items include certain analytical ratios and other concepts underlying the preparation of meaningful and complete financial statements. Upon completion of the course, students should be able to demonstrate competence in recognition of important disclosures in financial statements, discuss and evaluate alternative accounting methods and apply generally accepted accounting principles to the preparation of financial statements, including the statement of cash flows.

Pre-reqs:

ACC221

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-reqs:

ACC222 Can be Taken Concurrently

Business/ Entrepreneurial

Accounting/Finance

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

ACC227 PAYROLL ACCOUNTING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is the first course in a two-course sequence in payroll accounting. This course is focused to the Fundamental Payroll Certification and upon completion of the two courses the students should be prepared to take the Fundamental Payroll Exam, administered by the American Payroll Association. Specifically, this course covers the study of payroll, records keeping regulations, tax reporting requirements, accounting procedures and journal entries, and mandatory deductions of various taxes. Also covered is the employer's related taxes and preparation of various payroll tax forms, the Fair Labor Standards Act, and other Federal and State laws that regulate payroll.

Pre-reqs:

ACC121	Can be Taken Concurrently
Or ACC132	Can be Taken Concurrently

ACC228 BUSINESS TAXATION

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course examines the principles of taxation of C-Corporations, S-Corporations and Partnerships contrasting the traditional taxable entities with flow-through entities. Students complete tax returns for all three types of entities to gain practical, applied knowledge. In addition, complex analysis of basis and various types of gains and losses is performed as well as extensive study of cost recovery. Upon completion of the course, the student should be able to analyze complex tax scenarios of the various forms of a business entity and determine their impact on the entity's liability.

Pre-reqs:

ACC132

Business/ Entrepreneurial

Accounting/Finance

ACC229 COMPUTERIZED ACCTG APPLICATONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course involves the application of the student's accounting knowledge in a computerized setting. The student will record and report accounting information using various commercial accounting packages, including but not limited to QuickBooks Pro and Excel, and practice in problem solving and meeting project deadlines throughout the course. Upon completion, the student should have a functional knowledge of computerized accounting applications and procedures.

Pre-reqs:

And ACC121

Or ACC132

AOT226

Or ITD122

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-reqs:

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-reqs:

ACC227

Business/ Entrepreneurial

Accounting/Finance

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.

Pre-reqs:

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-reqs:

ACC133

ACC238 FINANCIAL STATEMENT ANALYSIS

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course provides an analytical perspective of corporate finance in the business. The role of financial statement analysis in managerial decision making will be emphasized. The course will present an in-depth review of the Balance Sheet, Income Statement of Stockholders' Equity, and the Statement of Cash Flows. The course will also cover methods of analyzing liquidity and profitability using both financial ratios and trend analysis. Upon completion of this analyze financial data and develop strategies for effectively minimizing corporate financial risk.

Pre-reqs:

ACC133

Business/ Entrepreneurial

Accounting/Finance

ACC239 ESTATE AND INCOME TAX PLANNING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course studies income tax planning, fundamentals of estate planning, estate planning considerations and constraints, and tools and techniques for estate planning. Topics include: the estate planning process, forms of property ownership, property transfers, characteristics of wills, intestacy, the fundamentals of estate and gift taxes (including determining the gross estate), the probate process, the use of trusts and estate liquidity. Upon successful completion of this course, the student should understand the fundamentals of the estate planning process.

Pre-reqs:

ACC124

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

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-reqs:

ACC223 Can be Taken Concurrently

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-reqs:

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.

Pre-reqs:

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

Business/ Entrepreneurial

Accounting/Finance

FIN221 INVESTMENT AND SECURITIES

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to provide the student with a clear understanding of the investment environment including the basics of investing ranging from descriptive material to the theory of portfolio construction and efficient markets. It includes the appraisal of the vast options for investors, the concept of risk, information sources and provides insight into the topic of security analysis. An investment simulation in a portfolio of securities allows the student to experience "hands-on" investing as they progress throughout this course. Upon completion, the student should be able to research stocks, mutual funds and bonds, make trades and review and analyze their account activities.

Pre-reqs:

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

Business/ Entrepreneurial

Administrative Srv Off Applion

AOT240 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:

And AOT121

And AOT130

ITD122

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-reqs:

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-reqs:

AUT121 Can be Taken Concurrently

Business/ Entrepreneurial

Automotive

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

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

Business/ Entrepreneurial

Automotive

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-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-reqs:

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.

Pre-reqs:

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-reqs:

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

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-reqs:

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-reqs:

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.

Pre-reqs:

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-reqs:

AUT141 VEHICLE CHASSIS SYSTEMS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed for Toyota dealership technicians and students that desire to become Toyota dealership technicians. This course is designed to provide the student with a working knowledge of the theory and repair of Toyota 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 Toyota steering, suspension, and braking system inspection and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to Toyota vehicles. Special emphasis is placed on the health and safety aspects related to automotive brake service. Students enrolled in this course will complete 4 hours of out-of-class assignments and answer review questions.

Pre-reqs:

AUT142 AUTO ELECT SYS TOYOTA

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed for Toyota dealership technicians and students that desire to become Toyota 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.

Pre-reqs:

Business/ Entrepreneurial

Automotive

AUT143 AUTO HVAC SYS TOYOTA 750

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed for Toyota dealership technicians and students that desire to become Toyota dealership technicians. This course is designed to provide the student with a sound knowledge of the theory and repair of Toyota 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 Toyota HVAC system diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to Toyota vehicles. Special emphasis is placed on the safety aspects related to heating and air conditioning service. The student will complete 2 hours of out-of-class assignments and answer review questions.

Pre-reqs:

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-reqs:

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.

Pre-reqs:

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

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-reqs:

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-reqs:

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

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-reqs:

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-reqs:

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

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-reqs:

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-reqs:

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:

AUT121

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-reqs:

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.

Pre-reqs:

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-reqs:

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:

AUT125

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-reqs:

AUT125

AUT224 AUTO DIESEL SYSTEMS

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 engines and 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:

AUT121

Business/ Entrepreneurial

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-reqs:

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:

AUT125

Business/ Entrepreneurial

Automotive

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-reqs:

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-reqs:

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:

AUT125

Business/ Entrepreneurial

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-reqs:

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-reqs:

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:

AUT223

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-reqs:

AUT251 AUTOMOTIVE DRIVETRAINS I

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed for Toyota dealership technicians and students that desire to become Toyota dealership technicians. The purpose of this course is to give the student a sound knowledge of the operation of Toyota manual transmission and driveline systems. The course is divided into four sections:(1) Clutches and Flywheels;(2) Manual Transmissions(3) Final Drive Assemblies; and(4) Transfer Cases. The student will study the theory of operation of components in these four sections. 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. The instructor will demonstrate Toyota manual transmission diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to Toyota vehicles. The student will be required to complete 2hrs of out-of-class assignments and answer review questions.

Pre-reqs:

AUT252 AUTOMOTIVE DRIVETRAINS II

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is designed for Toyota dealership technicians and students that desire to become Toyota dealership technicians. The purpose of this course is to familiarize the student in the operation of Toyota automatic transmission systems. The course text is divided into small modular sections making it easy for the student to absorb and apply the information in a logical manner. The instructor will demonstrate Toyota automatic transmission diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to Toyota vehicles. The student will be required to complete 2 hours of out-of-class assignments and answer review questions.

Pre-reqs:

Business/ Entrepreneurial

Automotive

AUT253 COMPUTERIZED VEHICLE CONTROLS

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is designed for Toyota dealership technicians and students that desire to become Toyota 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 Toyota computerized engine control systems. The course text is divided into small modular sections making it easy for the student to absorb and apply the information in a logical manner. Each section ends with a student self-assessment worksheet covering the main topics in that section. The self-assessment worksheets contain theory-based questions and hands-on practice. A skill pretest is imbedded into the first worksheet. This is done to prepare the student for the course and demonstrate to the instructor the skill level of the student. The student will be required to complete 4 hours of out-of-class assignments and answer review questions. There will be two performance tests and a written final test.

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:

AUT125

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-reqs:

AUT125

Business/ Entrepreneurial

Automotive

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-reqs:

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:

AUT124

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:

AUT221 Can be Taken Concurrently

Business/ Entrepreneurial

Automotive

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-reqs:

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

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-reqs:

AUT226 Can be Taken Concurrently

Business/ Entrepreneurial

Automotive

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

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-reqs:

AUT121	Can be Taken Concurrently

Business/ Entrepreneurial

Automotive

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-reqs:

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.

Pre-reqs:

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-reqs:

Business/ Entrepreneurial

Automotive

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-reqs:

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-reqs:

TOY101	Can be Taken Concurrently

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-reqs:

TOY102	Can be Taken Concurrently

Business/ Entrepreneurial

Automotive

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

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

Business/ Entrepreneurial

Automotive

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 anti-lock 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-reqs:

TOY201

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).

Pre-reqs:

TOY201

Business/ Entrepreneurial

Automotive

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).

Pre-reqs:

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-reqs:

TOY204

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

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: Reading - 3

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: Reading - 3

IDS102

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-reqs:

Or Test & Score: ACT Reading - 18

Or Test & Score: Accuplacer Reading - 070

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-reqs:

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: Reading - 3

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: Reading - 3

IDS102

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.

Pre-reqs:

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.

Pre-reqs:

CUL119	Can be Taken Concurrently
And CUL120	Can be Taken Concurrently

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-reqs:

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-reqs:

CUL119

And CUL120

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.

Pre-reqs:

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:

CUL124

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:

CUL221

Business/ Entrepreneurial

Business Mgt/Entrep

CUL223 Catering & Buffet/Event Mgt

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. 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.

Pre-reqs:

Or CUL119

And CUL120

CUL121

And CUL122

CUL224 Beverage Management & Service

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will guide students to create and maintain bar and beverage service in a responsible and profitable manner for a food service operation. Course content will include: responsible alcohol service, needed equipment, mixology, employee management, set up, purchasing, receiving, storage and inventory control as well as categories of products such as wine, beer, and specialty drinks.

Pre-reqs:

CUL119

And CUL120

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:

Business/ Entrepreneurial

Business Mgt/Entrep

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.

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: Reading - 3

Or ENG102

IDS102

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:

Business/ Entrepreneurial

Business Mgt/Entrep

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-reqs:

ENT120

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.

Pre-reqs:

BUS121

Or ENT120

Business/ Entrepreneurial

Business Mgt/Entrep

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

MGT141 INTRO TO CASINO MANAGEMENT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides an overview of gaming operations, including the economics of the casino and casino management. As part of the broader study of gaming, students will study the history of gaming, organizationand operation of a casino, new technological advancements of gaming in the industry, the mathematics of casino games, casino management, staffing, security, controls, taxation, and entertainment.

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

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-reqs:

ACC133

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:

ACC133

And 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

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

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

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

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-reqs:

MGT224

MGT241 CASINO SECURITY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will introduce students to various forms of cheating, theft, fraud, or loss in the gaming industry. Students will examine proven techniques for detecting threats to casino security and ways to protect the casino, assets, guests, and employees. Students will investigate best practice techniques, strategies, tactics, and metrics, required to effectively monitor the gaming operations; for example, suveillance audits, threat analysis, card counting, game protection techniques, players' club theft and fraud, surveillance standard operating procedures, and nightclub security.

Pre-reqs:

MGT141

MGT243 GAMING METHODS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course explores the gaming methods, policy, and procedures used by different gaming departments. Students will cover topics in casino methods, casino slot operations, table games performance and analysis, and casino mathematics. Students distinguish between the different games such as bingo, keno, roulette, blackjack, poker, baccarat, craps, and policy and procedures associated with security and surveillance.

Pre-reqs:

MGT141

Business/ Entrepreneurial

Business Mgt/Entrep

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

MKT131 CASINO MARKETING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides students with an understanding of casino marketing. This course will identify and discuss marketing theories, practices, and concepts in the casino industry. Students will learn how to achieve a competetive advantage for a casino through the application of marketing.

Pre-reqs:

BUS121

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

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-reqs:

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-reqs:

MKT121

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-reqs:

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-reqs:

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

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-reqs:

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.

Pre-reqs:

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-reqs:

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.

Pre-reqs:

Business/ Entrepreneurial

Business Studies

BTD223 BUSINESS 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 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-reqs:

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.

Pre-reqs:

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

Educ/ Liberal Arts/ Math

Arts, Humanities & Rdg

COM121 EFFECTIVE SPEAKING

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to help students develop effective speaking skills so that they are better prepared to speak before groups in business or industry. Principles of content selection, organization, audience analysis, and projection are studied. TAG approved course- OCM004 effective Summer 2007. TMCOM Approved effective Autumn 2008.

Pre-reqs:

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 effecfive Autumn 2008.

Pre-reqs:

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-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: Reading - 3

IDS102

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-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 - 3

Or Test & Score: Reading - 3

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.

Pre-reqs:

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-reqs:

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:

COM226 ORGANIZATIONAL COMMUNICATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on communication within organizations, including analysis of organizational theories, interpersonal concepts, group dynamics, cultural influences, and technological variables with the organizational setting.

Pre-reqs:

Educ/ Liberal Arts/ Math

Arts, Humanities & Rdg

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.

Pre-reqs:

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: Reading - 3

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

Educ/ Liberal Arts/ Math

Arts, Humanities & Rdg

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: GED Reasoning Through Lang Art - 1

Or Test & Score: IDS Transfer Prof/Placement - 3

Or Test & Score: Reading - 3

IDS102

COM230 ARGUMENTATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed to introduce students to rhetorical theory particularly as it relates to the theory and practice of argumentation. Students will have the opportunity to practice argumentation in academic debating and persuasive speaking. Students will also study the theoretical foundation of argumentation and its application in various contexts.

Pre-reqs:

HIS121 US 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-reqs:

Educ/ Liberal Arts/ Math

Arts, Humanities & Rdg

HIS122 US 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-reqs:

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-reqs:

Educ/ Liberal Arts/ Math

Arts, Humanities & Rdg

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 CAL101

IDS101

IDS115 COLLEGE SUCCESS SKILLS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Designed to aid students in gaining success skills needed for constructive and efficient learning both in college and other life settings. Topics include time management, study and test-taking skills, library use, and a variety of techniques for academic, professional and personal use.

Pre-reqs:

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 until Spring 2008. TMAH Approved effective Autumn 2008.

Pre-reqs:

Criminal Justice

Educ/ Liberal Arts/ Math

Criminal Justice

GLS227 Govt & Leg Studies Prac/Sem

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 0 Other Hours: 14

The practicum component of this course is an individual placement of the student into a selected legal or governmental agency for an educationally supervised learning experience. Students will complete 210 hours at the placement site. The 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 in government and legal studies.

Pre-reqs:

GLS123

And PSC221

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-reqs:

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

Pre-reqs:

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-reqs:

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.

Pre-reqs:

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.

Pre-reqs:

ASL124

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

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. Fifteen observation hours required.

Pre-reqs:

EDU131

EDU123 HEALTH AND NUTRITION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An examination of health and nutritional needs, issues, practices and state licensing as it relates to early childhood programs. Stress management, environmental design and working with children with special needs are addressed. Five observation hours required.

Pre-reqs:

EDU131

Educ/ Liberal Arts/ Math

Education

EDU124 INFANT TODDLER CURRICULUM

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Studies theory and practice of infant toddler curriculum, including current research. Goal setting, curriculum design, lesson planning and instructional methods based on NAEYC guidelines. Five observation hours required.

Pre-reqs:

EDU131

EDU125 CHLDRN W PHYSICAL EXCEPTIONS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course examines the range of service needs for students with mild to moderate physical impairments using an interdisciplinary team approach. Problem solving approaches and decision making models for use of adaptive materials, equipment, and intervention techniques are examined for assessment, planning, and service delivery. Five observation hours required.

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:

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

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 survey course is an introduction to the teaching profession. Students engage in a variety of experiences that broadly explore the purposes of schools in society and the knowledge, dispositions, and performances required to be an effective teacher today. Ten observation hours required. TAG approved course OED001, effective Summer 2013. CTAG approved course CTED001, effective 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 - 3

Or Test & Score: GED Reasoning Through Lang Art - 1

Or ENG011

Or ENG011

ENG105

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. Ten observation hours required.

Pre-reqs:

EDU122

Or EDU124

EDU223 COMMUNITY & FAM BASED PR

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An examination of community and family-based early childhood programs such as Head Start. Even Start and public special needs preschools. Adherence to mandates/guidelines, population served, socio-economic trends and factors, and how these programs differ from others are studied. Family relations and parenting skills emphasizing family involvement and empowering parents/guardians are studied and related to use in community/family programs. Five volunteer/observation hours required.This is the TAG ODE 006 course approved Spring 2012.

Pre-reqs:

EDU131

Educ/ Liberal Arts/ Math

Education

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:

Or ECE121

Or EDU121

EDU131

EDU225 THE EXCEPTIONAL CHILD

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

A study of theories and techniques used in assessment and instruction of learning-disabled, developmentally-challenged and gifted children. Developmental traits of children with special needs are examined, and instruction is studied in light of the inclusion and least restrictive environment models. Five observation hours required. TAG approved OED004.

Pre-reqs:

EDU130

Or EDU131

EDU227 EARLY CHLD ED TECH PRACTICUM

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:

EDU128

And EDU132

Or EDU221

And EDU225 Can be Taken Concurrently

Educ/ Liberal Arts/ Math

Education

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. Five observation hours required.

Pre-reqs:

Or ECE221

EDU221

EDU229 EDUCATIONAL PSYCHOLOGY

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Major theories of human development and learning, motivation instructional strategies, assessment, and similarities and differences in learners are examined. The role of factors in the students' environment that influence students' learning and development are considered. Five observation hours required. TAG OED003 approved Spring 2012.

Pre-reqs:

EDU130

Or EDU131

EDU230 CHILDN W SOCIOEMOTINAL EXCEPT

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 emotional/behavioral disabilities are studied. Social, educational, and emotional implications of learning and development are examined. Methods of assessment and interventions based on developmentally and individually appropriate practice are presented. Five observation hours required.

Pre-reqs:

EDU131

Educ/ Liberal Arts/ Math

Education

EDU231 EARLY CHLDHD EDUC ADM PRAC SEM

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 0 Other Hours: 14

A 210-hour, supervised, ECE administrator work experience. Open only to students enrolled in the Administrator One-Year Certificate for Early Childhood Professionals. This capstone course will allow the student to apply the skills and knowledge learned in business and education coursework. Weekly seminar participation is required.

Pre-reqs:

MGT121 Can be Taken Concurrently

English

CHN100 Elementary Chinese I

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course will foucs on basic reading, speaking, writing, and listening comprehension skills for Mandarin Chinese.

Pre-reqs:

CHN200 Elementary Chinese II

Credit Hours: 4 Contact Hours: 4 Lecture Hours: 4 Lab Hours: 0 Other Hours: 0

This course covers intermediate reading, speaking, writing, and listening, and application of those skills for Mandarin Chinese.

Pre-reqs:

CHN100

Educ/ Liberal Arts/ Math

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:

ENG011 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

ENG010

Or ENG103

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:

Test & Score: ACT English - 18

Or Test & Score: Accuplacer English/Writeplacer - 5

Or Test & Score: Compass English - 070

Or Test & Score: HS English - 3

Or Test & Score: GED Reasoning Through Lang Art - 1

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	ENG011	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-reqs:

ENG124

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-reqs:

ENG124

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:

ENG124

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-reqs:

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:

ENG124

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-reqs:

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-reqs:

ENG124

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.

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.

Pre-reqs:

ENG124

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-reqs:

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-reqs:

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-reqs:

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-reqs:

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

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:

MTH092

MTH091 Prealgebra I

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 whole numbers; fractions; the Real Number System; an introduction to variables; and solving equations.

Pre-reqs:

MTH092 Prealgebra II

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 positive and negative fractions; positive and negative decimals; ratios, rates and percent; solving equations and word problems.

Pre-reqs:

Or Test & Score: M091 Transfer Prof/Placement - 3

MTH091 Can be Taken Concurrently

Or MTH100

Or MTH101

Educ/ Liberal Arts/ Math

Mathematics

MTH093 Intermediate Algebra I

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 that will eventually pursue a Bachelor's degree. Topics to be covered are linear graphing; solving inequalities and absolute value equations; an introduction to functions; systems of equations; exponents; and polynomials.

Pre-reqs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: M092 Transfer Prof/Placement - 3

MTH092 Can be Taken Concurrently

Or MTH101

Or MTH123

MTH094 Intermediate Algebra II

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 that will eventually pursue a Bachelor's degree. Topics to be covered are factoring; rational expressions; roots and radicals; and quadratics.

Pre-reqs:

Or Test & Score: M093 Transfer Prof/Placement - 3

MTH093 Can be Taken Concurrently

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:

Or Test & Score: ACT Math - 19

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:

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: M091 Transfer Prof/Placement - 3

And Test & Score: M092 Transfer Prof/Placement - 3

MTH091

And MTH092

Or MTH100

MTH106 Math for Technology

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is designed for students in computer science and information technology. Areas of focus will include: sets and Venn diagrams, numbering systems, logic, graphs, greedy algorithms, counting principles, combinatorics, discrete probability, sequences, and series.

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: GED Mathematical Reasoning - 1

Or Test & Score: M091 Transfer Prof/Placement - 3

And Test & Score: M092 Transfer Prof/Placement - 3

MTH091

And MTH092

Or MTH100

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: 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: M091 Transfer Prof/Placement - 3

And Test & Score: M092 Transfer Prof/Placement - 3

MTH091

And MTH092

Or MTH100

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: 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

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M091 Transfer Prof/Placement - 3

And Test & Score: M092 Transfer Prof/Placement - 3

MTH091

And MTH092

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 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 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: 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

Or Test & Score: HS Math - 3

And MTH024 Can be Taken Concurrently

And MTH024 Can be Taken Concurrently

And MTH024 Can be Taken Concurrently

And MTH024 Can be Taken Concurrently

Or MTH024

Or MTH091

And MTH092

MTH093

Or MTH123

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: 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	
Or	Test & Score: HS Math - 3	
And	MTH024	Can be Taken Concurrently
And	MTH024	Can be Taken Concurrently
And	MTH024	Can be Taken Concurrently
And	MTH024	Can be Taken Concurrently
Or	MTH024	
Or	MTH091	
And	MTH092	
	MTH093	
Or	MTH123	

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-reqs:

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-reqs:

MTH124A

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 and absolute value equations and inequalities by applying analytical, graphical, and numerical methods of solution. Elementary functions and non-functions will be examined with reference to extremes, 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 polynomial functions of degree n. The student will also study exponential and logarithmic functions and the conic sections including their graphs and applications. Systems of equations will be solved by traditional algebraic methods as well as by the application of matrix algebra including determinants. These methods will be extended to include the partial fraction decomposition of rational expressions. TMM001 approved Spring 2012.

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: 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 - 3

MTH093

And MTH094

Or MTH123

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-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: 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 - 3

MTH093

And MTH094

Or MTH123

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-reqs:

MTH125A

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-reqs:

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-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: 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 - 3

MTH093

And MTH094

Or MTH123

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 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-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: 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 - 3

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-reqs:

MTH135A

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 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-reqs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or MTH125 Can be Taken Concurrently

And MTH130

MTH135

Or MTH135A

And MTH135B

Educ/ Liberal Arts/ Math

Mathematics

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 MTH125

And MTH130

MTH135

Or MTH135A

And MTH135B

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-reqs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

Or MTH125

And MTH130

MTH135

Or MTH135A

And MTH135B

Educ/ Liberal Arts/ Math

Mathematics

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 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 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.

Pre-reqs:

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.

Pre-reqs:

MTH224

Educ/ Liberal Arts/ Math

Mathematics

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.

Pre-reqs:

MTH224

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.

Pre-reqs:

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:

Educ/ Liberal Arts/ Math

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-reqs:

HIS222 World Civ from 17th Century

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course will study world history from the mid-17th century to the present.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KARF140 Sculpture 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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KARF999 Fine Arts 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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KARF999 Fine Arts 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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KART140 3-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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KENG210 Introduction to Shakespeare

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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KHIS110 History of Civilization 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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KHIS120 U.S. Modern 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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KHUM99 Humanities 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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KMTH999 Math and Critical Reasoning

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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KMTH999 Math and Critical Reasoning

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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KMUS111 Music Rudiments

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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KMUS171 Piano

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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KMUS221 The Understanding of 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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KMUS259 Major 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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KMUS369 Applied 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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KMUS473 Voice Class

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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KSCI9990 Basic 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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KSCI9990 Basic 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.

Pre-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

KSOC999 Social 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:

Educ/ Liberal Arts/ Math

Social Sciences

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.

Pre-reqs:

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-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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.

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-reqs:

GLS121

And PSC121

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: Reading - 3

IDS102

Or IDS102

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 IDS102

Or IDS102

PSY122 PSYCHOLOGY OF ADJUSTMENT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Examines selected concepts from various areas of psychology relating to adaptation to change. Adjustment is concerned with understanding how individuals react to changing life situations and how to enhance skills for effectively interacting with others. TMSBS approved Spring 2012.

Pre-reqs:

PSY121

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

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-reqs:

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, pro-social behavior, interpersonal relationships, aggression and social cognition. TAG OSS016 approved Spring 2012. Ohio Transfer Module Approved Spring 2012 TMSBS.

Pre-reqs:

PSY121

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

Educ/ Liberal Arts/ Math

Social Sciences

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: Reading - 3

IDS102

Or IDS102

Or IDS102

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

Educ/ Liberal Arts/ Math

Social Sciences

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-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: Reading - 3

IDS102

Or IDS102

Or IDS102

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-reqs:

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:

Educ/ Liberal Arts/ Math

Social Sciences

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

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-reqs:

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-reqs:

Educ/ Liberal Arts/ Math

Social Sciences

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

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.

Pre-reqs:

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

Educ/ Liberal Arts/ Math

Social Sciences

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-reqs:

Education and Human Serv

Education

EDU131 Intro to Child Development

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is an introduction of the characteristics and needs of young children from prenatal stages through age eight. Typical growth and development, developmental variations, and influences on development are examined by exploring physical, cognitive, social, emotional, and language domains. Historical and contemporary theories and research that support the importance of play, environments for learning, relationships, and the role of the teacher are presented. Fifteen 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

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

Education and Human Serv

Education

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: Compass English - 050

ENG011

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-reqs:

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

Engineering Tech

Engineering

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering

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-reqs:

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

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

Engineering Tech

Engineering

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-reqs:

And CET121

MTH125

Or MTH125B

Or MTH135

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

Engineering Tech

Engineering

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-reqs:

CET223

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-reqs:

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-reqs:

And CET121

And CET122

Or CET237

Or DET125

And ITD122

MTH125

Or MTH125B

Or MTH135

Or MTH135B

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

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-reqs:

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:

CET122
Or CET124
And 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

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

And DET125

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-reqs:

CET121

And ECA122

Or ITD122

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

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

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-reqs:

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

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 Spring 2012.

Pre-reqs:

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-reqs:

DET125

Engineering Tech

Engineering

DET132 SolidWorks

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 will also be generated from the solid models.

Pre-reqs:

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

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

Engineering Tech

Engineering

DET230 ADVANCED AUTOCAD (INVENTOR)

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.
TAG approved Summer 2012 OET021.

Pre-reqs:

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
Or	MTH125B	Can be Taken Concurrently
Or	MTH135	Can be Taken Concurrently
Or	MTH135B	Can be Taken Concurrently

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-reqs:

	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-reqs:

EET120

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-reqs:

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-reqs:

PHY121

Or PHY122

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-reqs:

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

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

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-reqs:

EET123

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:

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-reqs:

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

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-reqs:

EET120
Or EST130
Or EST230

MET123 MATERIAL SCIENCE

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 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-reqs:

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 PHY221	Can be Taken Concurrently

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-reqs:

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-reqs:

MET124

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 CTME010 approved Spring 2012.

Pre-reqs:

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-reqs:

	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

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-reqs:

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, hydro-electric, 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-reqs:

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

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-reqs:

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-reqs:

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

Engineering Tech

Engineering Independent Study

ETD201 ENG 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 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:

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-reqs:

Engineering/Applied

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 micro-hydroelectric 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-reqs:

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

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-reqs:

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, systme 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-reqs:

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:

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-reqs:

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-reqs:

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-reqs:

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:

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-reqs:

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:

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-reqs:

AIT131

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-reqs:

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-reqs:

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

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:

AIT140 3-D Printing

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The course is designed to familiarize students with the digital tools available to enhance the product development cycle and introduce a new way of production. Students will be introduced to various 3-D printing techniques and receive a general understanding of the technology behind it. The course includes discussions about apparent advantages of the technologies and how they are utilized.

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

Engineering Tech

Engineering/Applied

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-reqs:

Or ARL121

Or ARL122

IET223

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-reqs:

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

Engineering Tech

Engineering/Applied

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-reqs:

AIT220

AIT227 Advanced 3-D Printing

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The course is designed to familiarize students with advanced digital tools available to enhance the product development cycle and introduce a new way of production. Students will be introduced to various advanced 3-D printing techniques and receive a general understanding of the technology behind it. The course continues discussions about apparent advantages of the technologies and how they are utilized. The course may contain collaborative projects internal to the College or in conjunction with area manufacturers.

Pre-reqs:

AIT140

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

ARL129 FUNDAMENTAL OF CNC OPERATIONS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 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-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

ARL129

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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 hyrdrotesting. They will learn how to execute the test process and then close out a test with final documentation.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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).

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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:

Engineering Tech

Engineering/Applied

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-reqs:

ARL142

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-reqs:

ARL144

Engineering Tech

Engineering/Applied

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-reqs:

ARL145

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:

Engineering Tech

Engineering/Applied

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-reqs:

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).

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

ENV145 BASIC WATER TREATMENT-QUALITY

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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% web-based course.

Pre-reqs:

Engineering Tech

Engineering/Applied

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 coures is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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.

Pre-reqs:

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.

Pre-reqs:

Engineering Tech

Engineering/Applied

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 II is provided to the student after the successful completion of the course with a score of 80% or above on a comprehensive final examination.

Pre-reqs:

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.

Pre-reqs:

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 CHM141

And MTH107

Engineering Tech

Engineering/Applied

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-reqs:

CHM121

Or CHM141

And ENV121

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 CHM141

And ENV121

Engineering Tech

Engineering/Applied

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 CHM141

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.

Pre-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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 completion will be provided to the student

Pre-reqs:

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 completion will be provided to the student.

Pre-reqs:

ENV232

Engineering Tech

Engineering/Applied

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

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-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

Engineering Tech

Engineering/Applied

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-reqs:

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: M094 Transfer Prof/Placement - 2

MTH101

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" semi-conductor 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

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: 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: M093 Transfer Prof/Placement - 3

And Test & Score: M094 Transfer Prof/Placement - 3

Or MTH093

And 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.

Pre-reqs:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

ETD226 SPECIAL TOPICS

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:

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

EUT121

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-reqs:

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-reqs:

EUT123

Engineering Tech

Engineering/Applied

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-reqs:

EUT122

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-reqs:

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-reqs:

EUT124

Engineering Tech

Engineering/Applied

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-reqs:

EUT224

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-reqs:

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

Engineering Tech

Engineering/Applied

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.

Pre-reqs:

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-reqs:

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:

Engineering Tech

Engineering/Applied

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-reqs:

HVC122

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-reqs:

HVC122

Engineering Tech

Engineering/Applied

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

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-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: GED Mathematical Reasoning - 1

Or Test & Score: M094 Transfer Prof/Placement - 2

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-reqs:

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-reqs:

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 ADVANCED HVAC APP CONTROLS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

HVAC equipment application design concentrating on commercial and light commercial systems is presented. Roof-top units, economizers, water chillers, air handling units and IAQ are covered. Commercial system controls and zone controls including residential zoning are studied.

Pre-reqs:

HVC222

And HVC227

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-reqs:

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-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: GED Mathematical Reasoning - 1

Or Test & Score: M091 Transfer Prof/Placement - 3

And Test & Score: M092 Transfer Prof/Placement - 3

HVC121 Can be Taken Concurrently

And MTH091

And MTH092

Or MTH101

Engineering Tech

Engineering/Applied

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

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-reqs:

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:

Engineering Tech

Engineering/Applied

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

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-reqs:

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:

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 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: M093 Transfer Prof/Placement - 2

And Test & Score: M094 Transfer Prof/Placement - 2

MTH093

And 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-reqs:

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:

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: 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

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-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: GED Mathematical Reasoning - 1

And MST122 Can be Taken Concurrently

MTH101

Engineering Tech

Engineering/Applied

MST124 FURNACE COMBUSTION PRINC

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-reqs:

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

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-reqs:

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-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: GED Mathematical Reasoning - 1

MTH101

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-reqs:

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-reqs:

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: M091 Transfer Prof/Placement - 3

And Test & Score: M092 Transfer Prof/Placement - 3

MTH091

And MTH092

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-reqs:

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-reqs:

MST136 3G WLDG CERT EXAM PREP

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course will study the fit-up and joining of various schedules of pipes in all positions. The plate will be jointed using SMAW, GMAW, and GTAW. The course will also cover weld defects and their causes. Heat Affected Zone and Fusion Zone will be discussed. Students will perform various destructive tests per American Petroleum Institute (API) and American Society of Mechanical Engineers (ASME) codes.

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

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-reqs:

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

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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-reqs:

Engineering Tech

Engineering/Applied

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-reqs:

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

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-reqs:

MST127

And MST128

Engineering Tech

Engineering/Applied

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:

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-reqs:

Engineering Tech

Engineering/Applied

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:

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:

Engineering Tech

Engineering/Applied

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-reqs:

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-reqs:

Health and Human Services

Criminal Justice

Health and Human Services

Criminal Justice

CJS120 INTRO TO LAW ENFORCEMENT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and provides an overview of the American Criminal Justice system. Topics include the role of the peace officer, the court structure, ethics and professionalism, community policing, communicating with the public and the media, legal aspects of interviewing and interrogation, testifying in court and rules of evidence, the juvenile justice system, civil liability and use of force, and theories of criminal behavior.

Pre-reqs:

CJS121 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.

Pre-reqs:

CJS122 CRIMINAL LAW AND PROCEDURES

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on criminal law and criminal procedures for the law enforcement professional. Specific topics include the Ohio Revised Code, search and seizure, and arrest.

Pre-reqs:

Health and Human Services

Criminal Justice

CJS123 FIREARM TECHNIQUES

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 0 Lab Hours: 4 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on firearm techniques. Specific topics include safety procedures, handgun and related equipment, shooting techniques, and shotgun training. CTAG approved Spring 2012 CTBPO.

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

CJS125 REPORT WRITING

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 0 Lab Hours: 1 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on report writing. Specific topics include general and investigative report writing. CTAG approved Spring 2012 CTBPO.

Pre-reqs:

Health and Human Services

Criminal Justice

CJS126 DEFENSIVE DRIVING

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on defensive driving. Specific topics include non-emergency driving, emergency driving, pursuit driving, and practical driving events. CTAG approved Spring 2012 CTBPO.

Pre-reqs:

CJS127 SELF DEFENSE I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on self-defense. Specific topics include subject control techniques and physical conditioning. CTAG approved Spring 2012 CTBPO.

Pre-reqs:

CJS128 HUMAN RELATIONS I

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on human relations. Specific topics include domestic violence, crisis intervention, missing persons, and victims' rights.

Pre-reqs:

Health and Human Services

Criminal Justice

CJS129 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-reqs:

CJS121

CJS140 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: Reading - 3

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

Health and Human Services

Criminal Justice

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-reqs:

CJS121

CJS223 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-reqs:

CJS121

CJS227 CRIMINAL JUSTICE PRACT AND 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 in a selected criminal justice agency for an educationally supervised learning experience. Students will complete 210 hours at the placement site. The 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 in criminal justice.

Pre-reqs:

CJS221

Or SWK130

Health and Human Services

Criminal Justice

CJS230 PATROL ADMINISTRATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on patrol administration. Specific topics include patrol techniques, responding to crimes, gang awareness, communications and radio procedures, and prisoner booking and handling. CTAG approved Spring 2012 CTBPO.

Pre-reqs:

CJS231 TRAFFIC ENFORCEMENT

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on traffic enforcement. Specific topics include motor vehicle and commercial vehicle offenses, crash investigation and reporting procedures, fact gathering, collection of evidence, speed enforcement, and traffic control. CTAG approved Spring 2012 CTBPO.

Pre-reqs:

CJS232 CIV DISORDRS AND HOMELND SEC

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on civil disorders and homeland security. Specific topics include civil disorder and crowd control, hazardous material/weapons of mass destruction awareness, explosives, and terrorism awareness.

Pre-reqs:

Health and Human Services

Criminal Justice

CJS233 STANDARD FIRST AID

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on standard first aid practices and procedures. CTAG approved Spring 2012 CTBPO.

Pre-reqs:

CJS234 CRIMINAL INVESTIGATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on criminal investigation. Specific topics include crime scene investigation, evidence collection, tracing stolen property, controlled substance awareness, confidential informants, line-ups, the elements of public order crimes, and officer safety and awareness.

Pre-reqs:

CJS235 SELF DEFENSE II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on physical conditioning, self-defense, and subject control techniques.

Pre-reqs:

Health and Human Services

Criminal Justice

CJS236 HUMAN RELATIONS II

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on human relations. Specific topics include interacting with special needs populations, crime prevention, and community diversity.

Pre-reqs:

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

GLS121 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-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: Reading - 3

IDS102

Health and Human Services

Criminal Justice

GLS123 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 official and employees. Topics include the competency, confidentiality, conflicts of interest, financial disclosure, and impartiality.

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: Reading - 3

IDS102

PLS121 INTRO TO PARALEGAL STUDIES

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 role of the paralegal within the criminal, civil, and administrative components of that system. Topics include the state and federal court systems, legal research and writing, computer technology in the law, alternative dispute resolution and litigation, legal terminology, ethical considerations and professional responsibility.

Pre-reqs:

PLS122 CIVIL LITIGATION

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course introduces students to the rules of civil procedure, with emphasis on the Ohio Rules of Civil Procedure. Topics include pleadings, motion practice, discovery, trial preparation, and alternative dispute resolution, focusing on the role of the paralegal throughout the litigation process.

Pre-reqs:

PLS121

Health and Human Services

Criminal Justice

PLS123 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 both attorneys and paralegals, with emphasis on the Ohio Code of Professional responsibility and the corresponding duties of the paralegal. Topics include the competency, confidentiality, conflicts of interest, and the unauthorized practice of law.

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: Reading - 3

IDS102

PLS221 TORTS AND PERSONAL INJURY LAW

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on civil wrongs and their corresponding remedies, including the paralegal's roles and responsibilities in tort litigation. Topics include intentional torts, negligence, products liability, malpractice, strict liability, remedies and defenses to tort claims.

Pre-reqs:

PLS121

PLS222 FAMILY LAW

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on family law, with an emphasis on the paralegal's roles and responsibilities in family law cases. Topics include premarital agreements, divorce and dissolution, spousal support, child support, child custody, enforcement, and adoption.

Pre-reqs:

PLS121

Health and Human Services

Criminal Justice

PLS223 Property and Probate Law

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on property law and probate administration, with an emphasis on the paralegal's roles and responsibilities in the areas of real estate practice and administration of decedent's estates, both testate and intestate. Topics include types of property ownership, conveyances and leases, surveys and title insurance, fiduciary appointment and duties, and determination of probate assets.

Pre-reqs:

PLS121

PLS224 CRIM LAW AND PROC FOR PARALGL

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course focuses on criminal law and criminal procedure, with an emphasis on the paralegal's roles and responsibilities in criminal cases. Topics include the structure and functions of the legal system, the historical development of the criminal law, the elements of major crimes and defenses, and relevant issues in criminal procedure.

Pre-reqs:

PLS121

PLS227 PARALEGAL STUDIES PRAC/SEM

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 0 Other Hours: 14

The Practicum component of this course is an individual placement in a selected legal agency or law firm for an educationally supervised learning experience. Students will complete 210 hours at the placement site. The 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 in paralegal studies.

Pre-reqs:

PLS122

Dental Hygiene

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-reqs:

DAS122 DENTAL ASSISTING RADIOGRAPHY

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 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

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-reqs:

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.

Pre-reqs:

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 neck anatomy necessary for preparation for beginning technical study in expanded functions of dental auxiliary procedures. This course is useful for students who are not currently employees in a dental setting, who have not completed a post secondary dental assisting program or at least one year of an accredited dental hygiene curriculum.

Pre-reqs:

Health and Human Services

Dental Hygiene

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-reqs:

DAS227 EXPANDED DENTAL ASSISTING II

Credit Hours: 3 Contact Hours: 6 Lecture Hours: 0 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-reqs:

Health and Human Services

Dental Hygiene

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-reqs:

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:

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-reqs:

Health and Human Services

Dental Hygiene

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-reqs:

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-reqs:

DHY122

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

Health and Human Services

Dental Hygiene

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-reqs:

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:

DHY132 DENTAL HYGIENE THEORY I

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Builds upon fundamentals to provide further study of dental hygiene practices including, but not limited to, dental specialties, treatment planning and management of medical/dental emergencies.

Pre-reqs:

DHY131

Health and Human Services

Dental Hygiene

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-reqs:

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:

DHY133

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

Health and Human Services

Dental Hygiene

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:

DHY134

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

Health and Human Services

Dental Hygiene

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 oral hygiene indices, tobacco use and cessation education and supplemental care procedures. It focuses on the incorporation of all phases of assessment and the development of more complex dental hygiene treatment plans and case presentation focusing on individual patient care. Required lab activities 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:

DHY132

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

Health and Human Services

Dental Hygiene

DHY233 DENTAL HYGIENE THEO III

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

Further exploration of treatment modalities and adjunct procedures is covered. 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-reqs:

DHY232

Dietary Management

DMA121 SERVSAFE

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course provides 16 instruction hours on food safety training and certification, using the ServSafe program created by the National Restaurant Association Educational Foundation (NRAEF). This comprehensive course includes updates from the FDA Food Code, as well as new science-based and industry best practices relevant to state and local laws. There is a focus on the control of microorganisms, contamination, food allergens, food borne illness, and the safe food handler. ServSafe follows the flow of food from purchasing through service. This course also presents (Hazard Analysis of Critical Control Points) HACCP recipes, procedures and protocols. This course also includes food security, crisis management, and the active managerial program control. A ServSafe Food Protection Manager certificate and Ohio Department of Health ServSafe card is provided to students who pass the NRAEF certification exam.

Pre-reqs:

Health and Human Services

Dietary Management

DMA122 SERVSAFE EXPERIENCE

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course provides off campus experience, in conjunction with (DMA126) Management of Food Service Operations for the Dietary Manager Expierence, precepted by a Registered Dietitian, Registered Dietetic Technician or a Certified Dietary Manager. Students apply the concepts of food safety and sanitation to practical situations within the dietary management field.

Pre-reqs:

DMA123 NUTRITION MED NUTRITION THER

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course provides foundation knowledge of basic nutrition, plus extensive coverage of medical nutrition therapy. A sampling of the topics covered in this couse include dysphasia, nutritional supplements, trans-fatty acids, medical diets, diabetic meal planning and carbohydrate counting, liberalization of diets in long-term care, Centers for Medicare & Medicaid Services (CMS) regulations, laboratory values and nutrition facts labeling, as well as many other critical care conditions..

Pre-reqs:

DMA124 NUTRITION MED NUTR THER EXP

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 2 Lab Hours: 0 Other Hours: 1

This course provides Nutrition and Medical Nutrition Therapy (MNT) experience in an off-campus facility. This experience is intergrated with the academic instruction of DMA 123, directly supervised by a registered Dietician, licensed in the state of Ohio. Students apply the concepts of Medical Nutrition Therapy to practical situations within the dietary management facility.

Pre-reqs:

Health and Human Services

Dietary Management

DMA125 MFS OPER FOR DIETARY MGRS

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is the study of food service systems management, including menu planning and evaluation, recipe development, purchasing, equipment, financial management, inventory controls and marketing. Applications of the management principles in food production, quality control, distribution and the physical facilities are studied.

Pre-reqs:

DMA126 MFS FOR DIETARY MGRS EXP

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 2 Lab Hours: 0 Other Hours: 1

This course provides Foodservice Operations Management experience in an off-campus facility. This experience is intergrated with the academic instruction of DMA 125, directly supervised by a Registered Dietitian, a Registered Dietetic Technician or a Certified Dietary Manager

Pre-reqs:

DMA127 DIETARY OPERATIONS DELIVERY

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 satisfactions, 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:

Health and Human Services

Dietary Management

DMA128 DIETARY OPERATIONS DEL EXP

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 2 Lab Hours: 0 Other Hours: 1

This course provides off campus experience in a community facility or food service industry, intergrated with academic instruction, precepted by a Registered Dietitian, Registered Dietetic Technician or a Certified Dietary Manager. Students apply the concepts of Human Resource Management to practical situations within the dietary management field.

Pre-reqs:

DMA131 FOODSRVCE I FOR THE DIET MANAG

Credit Hours: 4 Contact Hours: 8 Lecture Hours: 3 Lab Hours: 5 Other Hours: 0

This course covers the study of food service systems management for the CDM (Certified Dietary Manager), including menu planning and evaluation, recipe development, purchasing, equipment, financial management, inventory controls and marketing. Management principle applications are taught for food production, quality control, distribution and physical facilities. The student will complete a minimum of 75 hours of directed practice in an approved facility to meet the required competencies of this course for preparation for the national certification examination.

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 - 3

Or Test & Score: M091 Transfer Prof/Placement - 3

And Test & Score: M092 Transfer Prof/Placement - 3

Or Test & Score: Reading - 3

IDS102

And MTH091

And MTH092

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

DMA141 NUTR FOR THE DIETARY MANAGER

Credit Hours: 4 Contact Hours: 8 Lecture Hours: 3 Lab Hours: 5 Other Hours: 0

This course provides foundation knowledge of basic nutrition, plus extensive coverage of Medical Nutrition Therapy (MNT) for the student desiring to become a CDM (Certified Dietary Manager). Examples of topics covered in this course include dysphasia, nutritional supplements, trans-fatty acids, medical diets, diabetic meal-planning and carbohydrate counting, liberalization of diets in long-term care, governmental regulations, laboratory values, and nutrition facts labeling, as well as many other critical care conditions. The student will learn the new coding procedures for the Nutrition section of MDS (Minimum Data Set) 3.0. In addition to the coursework, the student will complete 75 hours of directed practice within a designated facility that meets the required competencies for this nutrition rotation to enable the student to successfully pass the national certification examination.

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 - 3

Or Test & Score: Reading - 3

IDS102

And ITD122 Can be Taken Concurrently

Health and Human Services

Dietary Management

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

DMA151 FOODSRVCE II FOR THE DIET MANA

Credit Hours: 4 Contact Hours: 8 Lecture Hours: 3 Lab Hours: 5 Other Hours: 0

Comprehensive systems approach for the CDM (Certified Dietary Manager) 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 satisfactions, employee satisfaction and financial accountability. Additional coverage of sustainability, social responsibility and globalization related to dietary services is incorporated into the course materials. The student will complete 75 hours of directed practice in an approved facility to meet the required competencies of this course to enable the student to prepare for the national certification examination.

Pre-reqs:

DMA131

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

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.

Pre-reqs:

CHM101 Can be Taken Concurrently

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 Can be Taken Concurrently

And DTR223 Can be Taken Concurrently

NTR121

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:

And	DTR123	Can be Taken Concurrently
And	DTR223	Can be Taken Concurrently
	NTR121	

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-reqs:

	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-reqs:

DTR221

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-reqs:

NTR121

DTR226 COMM NUTRITION DIR PRACTICE

Credit Hours: 2 Contact Hours: 10 Lecture Hours: 0 Lab Hours: 0 Other Hours: 10

CATALOGUE DESCRIPTION: 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, within a 16 week semester. The student will shadow the dietitian or preceptor, using skills and knowledge learned in Community Nutrition (DTR226), Applied Nutrition (DTR123), Life Cycle Nutrition (DTR122) and Cultural Nutrition (DTR). Students will be placed in community settings, including schools, day cares, WIC, Head Start, Mobile Meals, Nursing Homes, Health Departments, YMCA/YWCA, Cooperative Extension Offices or other community settings.

Pre-reqs:

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 of quantity foods.

Pre-reqs:

And DMA121 Can be Taken Concurrently

DTR121

And DTR228 Can be Taken Concurrently

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-reqs:

DTR227

And DTR231 Can be Taken Concurrently

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-reqs:

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-reqs:

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:

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 - 080

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: Reading - 3

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-reqs:

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.

Pre-reqs:

EMS122 PARAMEDIC I

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

Health and Human Services

Fire and EMS

EMS124 PARAMEDIC I CLINICAL

Credit Hours: 2 Contact Hours: 12 Lecture Hours: 0 Lab Hours: 12 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-reqs:

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-reqs:

EMS122

And EMS124

And EMS223 Can be Taken Concurrently

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

Health and Human Services

Fire and EMS

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 Can be Taken Concurrently

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

Health and Human Services

Fire and EMS

FST128 VOLUNTEER FIREFIGHTER

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0.5 Lab Hours: 1.5 Other Hours: 0

Pre-reqs:

FST129 FIREFIGHTER 1

Credit Hours: 6 Contact Hours: 10 Lecture Hours: 4 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 CTFFI002, effective Summer 2013.

Pre-reqs:

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:

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 CTFFII003, effective Summer 2013.

Pre-reqs:

FST229 FIREFIGHTER TRANSITION

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 4 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-reqs:

FST128

FST230 FIREFIGHTER 2

Credit Hours: 5 Contact Hours: 7 Lecture Hours: 4 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

Health and Human Services

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-reqs:

Health Information

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-reqs:

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-reqs:

HIT121

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.

Pre-reqs:

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

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-reqs:

HIT122

And 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

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-reqs:

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-reqs:

Or CIS126

Or ECA180

HIT224

And ITD122

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-reqs:

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 Autumn 2010.

Pre-reqs:

HIT124

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-reqs:

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-reqs:

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-reqs:

SWK125

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-reqs:

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

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

CDC231 CHEM DEPEND PRACT & SEM

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 14 Other Hours: 0

This course provides the student with the clinical experience in an agency that offers services to persons with substance abuse/dependency disorders and adheres to the practice of the 12-core functions of a chemical dependency counselor. The student participates primarily in assisting with screening, orientation, assessment, counseling, case management, record keeping, crisis intervention, and identifying areas for referral. Students provide a variety of community support services related to substance abuse/dependency. Students are required to attend a weekly seminar to process the clinical experience.

Pre-reqs:

And CDC222

SWK224

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 - 2

Or Test & Score: Reading - 3

IDS102

Health and Human Services

Human Services

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 povides 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 - 3

Or Test & Score: Reading - 3

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

Health and Human Services

Human Services

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: 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: Reading - 3

IDS102

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-reqs:

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

Health and Human Services

Human Services

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

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:

Health and Human Services

Human Services

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-reqs:

ENG124

SWK231 HUMAN & SOCIAL SERVCE PRAC/SEM

Credit Hours: 3 Contact Hours: 15 Lecture Hours: 1 Lab Hours: 0 Other Hours: 14

A 210-hour, supervised experience working in selected Human and Social Services agencies. Open only to Human and Social Service majors. Weekly seminar participation required.

Pre-reqs:

And SWK130

SWK224

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-reqs:

Health and Human Services

Massage Therapy

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:

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-reqs:

And BIO122 Can be Taken Concurrently

MAS123

Health and Human Services

Massage Therapy

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

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

Health and Human Services

Massage Therapy

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

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

Health and Human Services

Massage Therapy

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

MAS230 LTD Branch Massage Therapy Rev

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

The course contains a review of Massage Therapy related content in preparation for the Massage and Bodywork Licensing Exam (MBLEx). Unpon successful completion of this course, students will be eligible to take MBLEx and upon successful passage of the exam, students will be able to apply for licensure with the State Medical Board of Ohio (SMBO).

Pre-reqs:

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-reqs:

MAS121

Medical Assisting

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-reqs:

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-reqs:

MAT121

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-reqs:

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-reqs:

MAT102

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-reqs:

	MAT200	
And	MAT201	
And	MAT203	Can be Taken Concurrently
And	MAT204	Can be Taken Concurrently
And	MAT206	Can be Taken Concurrently

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-reqs:

	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-reqs:

MAT121

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-reqs:

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-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: Reading - 3

IDS102

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 Spring 2007.

Pre-reqs:

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

Health and Human Services

Medical Lab

MLT123 HEMATOLOGY I

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 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-reqs:

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-reqs:

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

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-reqs:

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

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-reqs:

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-reqs:

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

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-reqs:

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-reqs:

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-reqs:

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.

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

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-reqs:

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-reqs:

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

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.

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-reqs:

And	BIO121	
Or	BIO123	
And	NSG100	
And	NSG100C	
And	NSG100L	
And	NSG101	
	NSG121	Can be Taken Concurrently
And	NSG121L	Can be Taken Concurrently

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-reqs:

And	NSG101	Can be Taken Concurrently
And	NSG122C	Can be Taken Concurrently
	NSG122L	Can be Taken Concurrently

NSG122C Trans for Paramedic Cliniical

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:

Health and Human Services

Nursing

NSG122C Trans for Paramedic Cliniical

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-reqs:

And	NSG101	Can be Taken Concurrently
And	NSG123C	Can be Taken Concurrently
	NSG123L	Can be Taken Concurrently

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-reqs:

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

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-reqs:

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

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-reqs:

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

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 co-requisites and successfully complete all components.

Pre-reqs:

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 co-requisites 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 co-requisites and successfully complete all components.

Pre-reqs:

And	NSG141	

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 co-requisites and successfully complete all components.

Pre-reqs:

And	NSG141C	
And	NSG141L	
	NSG221	Can be Taken Concurrently
And	NSG221C	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-reqs:

And	BIO122	

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.

Pre-reqs:

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-reqs:

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-reqs:

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	

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-reqs:

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-reqs:

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:

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:

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-reqs:

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

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-reqs:

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-reqs:

Or	BIO122	
	BIO123	
And	OTA123	
And	OTA124	
And	OTA223	Can be Taken Concurrently
And	PTA226	Can be Taken Concurrently

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

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

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-reqs:

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-reqs:

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:

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-reqs:

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:

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-reqs:

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-reqs:

OPH103

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-reqs:

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-reqs:

OPH201

Physical Therapy

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:

BIO122

Or BIO123

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 Applictions

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

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-reqs:

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-reqs:

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:

PTA118

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

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-reqs:

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

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

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	Can be Taken Concurrently
And	PTA138L	Can be Taken Concurrently
	PTA221	

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 co-requisite and successfully complete both lecture and lab components.

Pre-reqs:

	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

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

And PTA229 Can be Taken Concurrently

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-reqs:

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-reqs:

BIO124

And EXS120

And PTA120

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-reqs:

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:

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-reqs:

PTA228

And PTA257 Can be Taken Concurrently

And PTA267 Can be Taken Concurrently

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-reqs:

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 co-requisite and successfully complete both lecture and lab components.

Pre-reqs:

PTA138

And PTA225 Can be Taken Concurrently

And PTA248L Can be Taken Concurrently

Health and Human Services

Physical Therapy

PTA248L Multisystems Lab

Credit Hours: 1 Contact Hours: 3 Lecture Hours: 0 Lab Hours: 3 Other Hours: 0

Laboratory applications related to the study of 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 lecture co-requisite and successfully complete both lecture and lab components.

Pre-reqs:

PTA248	Can be Taken Concurrently

PTA257 Clinical Experience II

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-reqs:

And PTA230	Can be Taken Concurrently
PTA247	

PTA267 Clinical Experience III

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-reqs:

Respiratory Therapy/MIST

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-reqs:

BIO101 Can be Taken Concurrently

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 Can be Taken Concurrently

MIS124 Can be Taken Concurrently

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-reqs:

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

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-reqs:

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; 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; 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:

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-reqs:

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: aerosol therapy, hyperinflation techniques, bronchial hygiene, airway clearance techniques, arterial punctures, and basic respiratory 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:

RCT124

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: aerosol therapy, hyperinflation techniques, bronchial hygiene, airway clearance techniques, arterial punctures, and basic respiratory 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-reqs:

RCT124 PHARMACOLOGY FOR RT

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:

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:

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-reqs:

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 artificial airways and 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 artificial airways and mechanical ventilation. 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:

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-reqs:

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

Health and Human Services

Respiratory Therapy/MIST

RCT220 CARDIOPULMONARY A & P

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

An orientation to the anatomy and physiology of the respiratory and cardiac systems.

Pre-reqs:

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:

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-reqs:

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-reqs:

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

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-reqs:

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

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-reqs:

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-reqs:

	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-reqs:

	SUA100	Can be Taken Concurrently
And	SUA102L	Can be Taken Concurrently

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 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 laboratory co-requisite and successfully complete both components.

Pre-reqs:

SUA102
And SUA102L
And SUA106L Can be Taken Concurrently

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 Asst 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-reqs:

SUA108C Can be Taken Concurrently

SUA108C Surg Asst 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 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 Clinical Practicum 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

Health and Human Services

Surgical

SUA110 Surg Asst Clinic 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:

SUA110C	Can be Taken Concurrently

SUA110C Surg Asst Clinic 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 Clinical Practicum I and 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-reqs:

SUA110C	Can be Taken Concurrently

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-reqs:

SUA104

SUR100 Surgical Pathophysiology

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

This course is an introduction to various diseases and processes, tumors, fluid, hemodynamic disorders, inflammation and infection, as well as surgically treatable diseases and disorders. This course will also cover diagnostic procedures within the surgical technology field of study.

Pre-reqs:

SUR104

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. Patient identification, methods of patient transport, transfer of equipment, body mechanics, hemostasis, instrumentation, 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-reqs:

SUR102L Can be Taken Concurrently

Health and Human Services

Surgical

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. Patient identification, methods of patient transport, transfer of equipment, body mechanics, hemostasis, instrumentation, 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 co-requisite and successfully complete both components.

Pre-reqs:

SUR102	Can be Taken Concurrently

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 pre-operative 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

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 intra-operative and post-operative roles. Urinary catheterization, instrumentation, surgical skin prep, suture material, surgical needles, stapling equipment, dressings and post-operative wound care will be covered. Application of knowledge and skills occurs in the surgical technology laboratory, as well as recognition of general surgery including major and minor trays, laparoscopic, and gynecological instrumentation. Students must register for the laboratory co-requisite and successfully complete both components.

Pre-reqs:

SUR102	
And SUR106L	Can be Taken Concurrently

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 intra-operative and post-operative roles. Urinary catheterization, instrumentation, surgical skin prep, suture material, surgical needles, stapling equipment, dressings and post-operative wound care will be covered. Application of knowledge and skills occurs in the surgical technology laboratory, as well as recognition of general surgery including major and minor trays, laparoscopic, and gynecological instrumentation. Students must register for the lecture co-requisite and successfully complete both components.

Pre-reqs:

SUR102L

And SUR106 Can be Taken Concurrently

SUR108 Surgical Clinic Prac 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 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:

SUR108C 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 will cover the concepts of procedural steps, instrumentation, supplies, and patient positioning regarding various surgical specialties such as general, OB/GYN, genitourinary, otorhinolaryngology, orthopedics, and robotics. 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

Health and Human Services

Surgical

SUR200L Surgical Specialties I Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course will cover the concepts of procedural steps, instrumentation, supplies, and patient positioning regarding various surgical specialties such as general, OB/GYN, genitourinary, otorhinolaryngology, orthopedics, and robotics. 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:

SUR106L

And SUR200 Can be Taken Concurrently

SUR201 Surgical Clinic 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:

SUR201C Can be Taken Concurrently

SUR201C Surgical Clinic 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 first and second scrub roles. Specific surgical cases in general and specialty areas are assigned. The main surgery focus is on general, OB/GYN, genitourinary, otorhinolaryngology, and orthopedics. Students are required to complete an accumulative total of 120 cases during Surgical Clinical Practicum I, II, and III. Students must register for the seminar co-requisite and successfully complete both components.

Pre-reqs:

SUR108C

And SUR201 Can be Taken Concurrently

Health and Human Services

Surgical

SUR202 Surgical Specialties II

Credit Hours: 2 Contact Hours: 2 Lecture Hours: 2 Lab Hours: 0 Other Hours: 0

This course explores various specialties in the surgical environment including oral and maxillofacial, plastic and reconstructive, ophthalmic, cardiothoracic, peripheral vascular, and neurosurgery procedures. Information covered includes practice procedural steps, instrumentation, gathering of supplies, and patient positioning. 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

SUR202L Surgical Specialties II Lab

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course explores various specialties in the surgical environment including oral and maxillofacial, plastic and reconstructive, ophthalmic, cardiothoracic, peripheral vascular, and neurosurgery procedures. Information covered includes practice procedural steps, instrumentation, gathering of supplies, and patient positioning. 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 III Sem

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

The seminar component of Practicum III 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

Health and Human Services

Surgical

SUR203C Surgical Clinic Prac III

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 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 120 cases during Clinical Practicum I, II, and III. 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

SUR204 Surgical Specialties 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:

Information Tech

Administrative Srv Off Applion

AOT107 DIGITAL TECHNOLOGIES

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course develops proficiency in selecting and using the proper technology to solve various types of business problems. Using a project-based approach, the student must analyze a business situation or problem, determine the proper technology to address the situation, and use the selected technology to complete the project. Technologies include Word, Excel, Access, PowerPoint, Outlook, scanners, copiers, fax machines, and other digital devices found in a business environment. Upon completion, students should be able to determine proper technologies to use for a given business situation and use that technology to complete the necessary project.

Pre-reqs:

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:

And Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

AOT121

Or ITD100

Information Tech

Administrative Srv Off Applion

AOT128 DPT-MICROSOFT PUBLISHER

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers the concepts and applications of desktop publishing using Microsoft Publisher. Emphasis is placed on the creation of various types of high-quality documents that combine text and graphics. Upon completion, students should be able to design and produce professional business documents and publications.

Pre-reqs:

Or AOT131
BCA120
Or BCA220
Or ECA122
And IMT122
Or ITD122
Or ITD220

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:

AOT121
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-reqs:

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-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: Reading - 3

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:

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

Information Tech

Administrative Srv Off Applion

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 OAD130

AOT226 SHRSHEET MICROSFT EXCEL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers spreadsheet applications on the microcomputer using the Microsoft Excel program. Upon completion, students should be able to demonstrate proficiency in using MS Excel in an office setting to solve common business problems.

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

Pre-reqs:

AOT121

Or AOT129

And AOT130

And ITD122

Information Tech

Administrative Srv Off Applion

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 AOT237

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-reqs:

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

Information Tech

Administrative Srv Off Applion

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

AOT239

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-reqs:

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-reqs:

Information Tech

Administrative Srv Off Applion

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

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-reqs:

Test & Score: Computer Test - 21

Or Test & Score: HS Computer Class - 2

Or ITD100

Information Tech

Administrative Srv Off Applion

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

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: Reading - 3

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

Information Tech

Administrative Srv Off Applion

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: HS Computer Class - 2

ITD100

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-reqs:

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:

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-reqs:

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-reqs:

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:

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. Designed for competency-based modular instruction.

Pre-reqs:

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-reqs:

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.

Pre-reqs:

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 teacher interaction. Designed for competency-based modular instruction.

Pre-reqs:

JCR2105

JCR2200 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-reqs:

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-reqs:

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.

Pre-reqs:

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.

Pre-reqs:

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-reqs:

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-reqs:

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-reqs:

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-reqs:

TDS122 Can be Taken Concurrently

TDS221 Adobe Captivate

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

This course covers the concepts, design, and application of Adobe Captivate. Students will create interactive eLearning materials. Upon competition of this course, students will be able to design and develop quality training materials for eLearning.

Pre-reqs:

Information Tech

Administrative Srv Off Applion

TDS222 Web-based Learning

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Students will learn to develop, implement, and evaluate web-based instruction utilizing a learning management system. Upon completion of this course, students will be able to utilize a learning management system to deliver web-based instruction.

Pre-reqs:

TDS124

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-reqs:

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.

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: Reading - 3

IDS102

Information Tech

Computer Science

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-reqs:

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-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: Reading - 3

IDS102

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-reqs:

Or CPD121

ECA253

Information Tech

Computer Science

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

CIS223 IT PROJECT MANAGEMENT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

In this course students learn about IT-related projects and the five project management process groups associated with project planning. Topics will include areas from Project Integration Management, Scope Management, Time Management, Cost Management, Quality Management, Communication Management, Risk Management, Procurement Management, and Stakeholder Management. Students will use software to help build and manage projects. Upon completion, students will have skills to explore, in greater detail, various project management tools.

Pre-reqs:

CIS126

And CPD121

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

Information Tech

Computer Science

CIS280 Help Desk Capstone

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This capstone course will provide students with opportunities to apply knowledge learned in other coursework. Students will develop proficiency while resolving issues in s simulated, scenario-based environment. Upon completion, students will be able to perform day-to-day duties in a variety of help desk environments.

Pre-reqs:

CIS224

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 hands-on labs to learn how to apply the techniques presented.

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: Reading - 3

IDS102

And ITD100

CPD122 ORACLE DTBSE: INTRO TO SQL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces Oracle Database technology and the relational database concepts and the powerful SQL programming language. This course provides the students with the essential SQL skills of querying the database, the meta data and creating database objects. This course is designed to prepare you for the corresponding Oracle Certified Professional exam. 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:

Information Tech

Computer Science

CPD122 ORACLE DTBSE: INTRO TO SQL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces Oracle Database technology and the relational database concepts and the powerful SQL programming language. This course provides the students with the essential SQL skills of querying the database, the meta data and creating database objects. This course is designed to prepare you for the corresponding Oracle Certified Professional exam. 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:

Or CPD121

ECA253

CPD221 ORACLE DATABASE:PL/SQL 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:

Or CPD122

Or CSE122

And ECA127

ECA142

CPD222 MCRSFT SQL SERVER DTBSE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides students with the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server. Through a system of lessons and hands-on exercises students will gain practical experience using Transact-SQL and Data Transformation Services (DTS) to manipulate data; programming business logic using stored procedures, transactions, triggers, user-defined functions, and views; optimizing database performance by using SQL Profiler and the Index Tuning Wizard; and Managing security--data access, object-level security, and application roles. As students build these real-world database skills, they will also be prepared for the corresponding Microsoft (MCITP) certification exam.

Pre-reqs:

Or CPD121

ECA253

Information Tech

Computer Science

CPD223 ORACLE DTBASE: ARCH AND ADM

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is designed to provide students with an in-depth understanding of the basic features of Oracle and advanced Oracle features. The goal in this course is to cover the Oracle architecture and internal mechanisms so students are able to perform basic DBA tasks such as database creations, startup and shutdown, and database management. The course also covers Oracle networking basics and the Oracle utility programs. Hands-on exercises are used to demonstrate each feature and students will gain first-hand experience in the key Oracle DBA concepts. Upon completion students will be able to create Oracle databases and perform basic DBA tasks such as database creations, startup and shutdown, and database management.

Pre-reqs:

Or CPD122

ECA142

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-reqs:

Or CPD222

ECA139

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 CPD121

ECA253

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.

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: Reading - 3
	IDS102
And	ITD100

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: Reading - 3

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-reqs:

Or CSE122A

ECA127A

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:

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:

CSE121

And 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

CSE223 IOS DEVELOPMENT 2

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers advanced Apple iOS development topics. Best practices will be discussed along with other in-depth iOS programming concepts. Upon completion of this course, students will demonstrate the ability to create advanced iOS applications and the ability to package the applications for deployment in the Apple App Store.

Pre-reqs:

CSE222

Information Tech

Computer Science

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

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-reqs:

And CSE221

And CSE222

And ECA225

ECA234

Or WDD221

Or WDD222

CSE226 SFTWRE ENG FOR HAND-HELD DEVIC

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 mobile devices. In this course, students will create basic applications to run on a mobile operating system. Students will also learn how to use available emulation environments to run and test their applications.

Pre-reqs:

Or CSE231

ECA223

Information Tech

Computer Science

CSE227 C# Programming

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

In this course students will learn to design, create, test, deploy, maintain and support desktop software applications using Microsoft's C#.Net. Students will complete a series of hands-on lab exercises using C#. Hands-on labs are utilized to reinforce the presented materials.

Pre-reqs:

Or CSE122

ECA127

CSE229 VISUAL BASIC 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 Visual Basic.Net programming language. This course will help prepare the student for MCTS certification in Microsoft Visual Basic.Net. Upon completion of this course, the student should be able to develop a desktop application with a graphical user interface, write code using Visual Basic control structures, properly validate user input, and test and debug the application.

Pre-reqs:

Or CSE122

ECA127

CSE230 ADV VISUAL BASIC DEV

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course examines advanced features of the VB.NET language 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 Visual Studio.NET 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

Information Tech

Computer Science

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.

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-reqs:

Or CSE122

ECA127

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-reqs:

CSE231A

Information Tech

Computer Science

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.

Pre-reqs:

Or CSE122

ECA127

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

Information Tech

Computer Science

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

ECA222

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

Information Tech

Computer Science

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 CPD121
Or CSE227
Or CSE229
Or CSE231
Or CSE233
Or WDD221
Or WDD222
Or WDD224
Or WDD226

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-reqs:

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:

Information Tech

Computer Science

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

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. Effective Summer 2016 - OSS026

Pre-reqs:

Information Tech

Computer Science

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.

Pre-reqs:

Or ENV223

GIS123

GIS232 REMOTE SENS & DIG IMAGE PROC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course emphasizes remote sensing tools and remotely sensed data including aerial and satellite imagery. Students will be expected to learn how to identify and build data layers from aerial photography, as well as understand the tools and concepts needed to perform orthorectification, mosaicking, data subsets, vegetation mapping, change detection and image enhancement skills.

Pre-reqs:

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

And GIS232

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-reqs:

GIS233

SGE121 GAME DESIGN

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Categories of video games, design principles related to different processing platforms, current animation techniques, and current software packages available for creation of video games are all major topics. The focus of this course is to familiarize the student with design technologies and software available to implement animation used for video games. The student will gain an overall view of the gaming industry.

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: Reading - 3

IDS102

SGE221 ADV GAMING AND SIMULATN TOPICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course explores topics in the area of 2D and 3D game programming. The students will develop a variety of software projects related to the gaming and simulation areas.

Pre-reqs:

SGE222

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 learn the essentials of 3D game development, including basic algorithms, texture mapping basics, 3D math, lighting, etc.

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 focuses on 2D game programming. The student will learn the essentials of 2D game programming, including basic algorithms, collision detection and mathematic algorithms.

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

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-reqs:

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

Information Tech

Computer Science

WDD121 INTERNET/INTRANET DES & DEV

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.

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: Reading - 3

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: Reading - 3

IDS102

And ITD100

Information Tech

Computer Science

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

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

Information Tech

Computer Science

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 DEV W JAVASCRIPT AJAX

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course introduces students to Javascript and AJAX. Students will be able to develop interactive web sites using JavaScript and AJAX components. Various assignments enhance the student's ability in JavaScript, including interaction with the browser, regular expressions and form validation. Hands-on labs are utilized to reinforce the presented materials.

Pre-reqs:

ECA228

Or WDD121

Or WDD121A

And WDD121B

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-reqs:

ECA228

Or WDD121

Or WDD121A

And WDD121B

Information Tech

Computer Science

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-reqs:

Or CSE122
Or CSE122B
And ECA127
ECA228
Or WDD121
Or WDD121B

WDD225 ADV ACTIVE SVR PAGE DEV

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:

Information Tech

Computer Science

WDD225 ADV ACTIVE SVR PAGE DEV

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:

ECA229

Or WDD224

WDD226 WEB DEV WITH PHP AND MYSQL

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

Or WDD121B

WDD227 ADV WEB DEV W PHP AND MYSQL

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

An advanced course in PHP and MySQL focusing on web database integration. Learn more advanced techniques such as image/file uploads and AJAX integration and develop a complete content management system in PHP and MySQL.

Pre-reqs:

ECA236

Or WDD226

Information Tech

Computer Science

WDD228 SEARCH ENGINE OPTIMIZATION

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course focuses on optimizing HTML code for search engine placement. Topics include link building, natural optimization vs pay per click, understanding web statistics and conducting online PR campaign.

Pre-reqs:

ECA228

Or WDD121

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-reqs:

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.

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:

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-reqs:

CFS176 ONLINE INVESTIGATION RESOURCES

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will provide the student with knowledge, techniques and tools to gather information from various online resources that are available in the public domain that can assist in the process of conducting various types of investigations.

Pre-reqs:

CFS137

Or ECA137

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:

Information Tech

Computer Security

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-reqs:

Or CFS137

ECA137

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

Information Tech

Computer Security

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

CFS281 ADV DIGITAL MEDIA FORENSICS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The student will learn advanced techniques to gather date from digital devices focusing on data maintained in system memory and recovery of this data using live acquisition tools and techniques.

Pre-reqs:

Or CFS258

ECA258

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

Information Tech

Computer Security

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:

IMT263

ECA130 SOFTWARE VULNERABILITIES

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

Enumeration, exploits, keygens and other application vulnerabilities are presented. Security holes and exploitations in computer, interpreted and web based applications are addressed in a hands-on environment.

Pre-reqs:

ECA127

And EET131

And EET141

Information Tech

Computer Security

HLS121 INTRO TO EMERGENCY MGT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course provides awareness-level emergency preparedness training for the first responder's workforce. The course is a study of the theory and practice of incident command, the various methods of incident command, with specific focus on Incident Command System and NIMS. Cases will be studied in order to assist students in understanding the management and leadership associated with modern emergencies and disasters.

Pre-reqs:

HLS122 INTELLIGENCE AND HOMELAND SEC

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will explore the organization and functions of U.S. Intelligence and Homeland Security, its interaction with national security policymakers, key issues about its workings, and the challenges it faces in defining its future role. The events of 9/11 focused new attention on national intelligence, including the most significant reorganization of the community since the National Security Act of 1947. The course will highlight some of the major discussions about the role, practices, and problems of intelligence.

Pre-reqs:

HLS123 HOMELD DEF AND CRISIS MGT

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course will provide students with an introduction to crisis management techniques, principles, and strategies preparing them to manage and even prevent crises in the homeland defense realm. Students will be able to identify potential crises and vulnerabilities; establish the procedure to follow in case of a crisis; elect and prepare a response team; and set up organizational channels to facilitate early warnings.

Pre-reqs:

Information Tech

Computer Security

HLS220 WEAPONS OF MASS DESTRUCTN AWAR

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course is intended for first responders likely to witness or discover hazardous substances and initiate an emergency response sequence. This course is intended to meet Federal OSHA standards for police and other public-sector personnel.

Pre-reqs:

HLS123

HLS221 TERRORISM AND HOMELAND DEFENSE

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course acquaints the student with major issues in global terrorism, from the history and development of terrorism through the psychology, financing, structure, and dynamics of terrorist groups. The course also includes a focus on legal issues and terrorism of the future.

Pre-reqs:

HLS122

HLS225 INTELLIGENCE ANALYSIS

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course involves gathering and analyzing foreign and domestic intelligence related to security including terrorism. This course utilizes structured analytical techniques to compile and analyze intelligence gathered from multiple sources to develop thorough and disciplined analytical process. Methods used will include idea generation, scenarios and indicators, hypothesis generation, cause and effect, and decision support. Students will apply structured analytical techniques using intelligence analysis software.

Pre-reqs:

Information Tech

Computer Security

IMT121 INTERACTIVE MEDIA

Credit Hours: 3 Contact Hours: 3 Lecture Hours: 3 Lab Hours: 0 Other Hours: 0

Topics include communication through design, sketching and visualization, the use of computers and human-computer interaction. Human-computer interaction is explored through a survey of web, audio, video, and design projects.

Pre-reqs:

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.

Pre-reqs:

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:

Information Tech

Computer Security

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.

Pre-reqs:

IMT122

IMT129 DIGITAL AUDIO RECG AND EDITING

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The student will learn how to record, edit, and design with audio through a combination of lecture, lab, and student projects. Upon completion of this course, the student will be able to design, capture, and create audio for a variety of media including TV, web, and CD.

Pre-reqs:

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.

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

The technology of MIDI controllers, sight singing and ear training are the focus of this course. Compositions will be explored using MIDI and music notation software.

Pre-reqs:

IMT135	Can be Taken Concurrently

Information Tech

Computer Security

IMT135 MUSIC THEORY AND COMPOSITION I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The creation of music using classical notation is the focus of this course. The student will be able to explain music theory fundamentals and its related rules. Upon completion of this course the student will be able to compose and arrange 16-32 bar songs with theoretical accuracy.

Pre-reqs:

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-reqs:

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-reqs:

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.

Pre-reqs:

IMT121

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 envrionment 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-reqs:

And IMT125

IMT136

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-reqs:

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:

Or IMT125

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-reqs:

IMT242

Information Tech

Computer Security

IMT239 MUSIC SYNTHESIS I

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

The focus of this course is to provide students with the opportunity to develop portfolio level work in the multifaceted areas of music synthesis. The course will provide both a theoretical and practical knowledge of music synthesis. The practical knowledge will be attained by completion of various projects which encompass all the core functions of music synthesis professionals.

Pre-reqs:

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:

IMT223

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:

IMT122

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

A continuation of the first course that provides the student with advanced composition, theory, harmony and improvisational skills with the focus of implementation being TV, film and mixed media.

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-reqs:

IMT125

Information Tech

Computer Security

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-reqs:

IMT129

IMT251 AUTHORING AND VIDEO COMPRESSON

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course covers advanced topics in video compression for both DVD and the web. Streaming video, video integration with other web media and flash video will be covered through a series of production/ compression challenges. DVD authoring standards, compression rates and DVD preparation will also be covered.

Pre-reqs:

IMT242

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.

Pre-reqs:

IMT122

Information Tech

Computer Security

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

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

Information Tech

Computer Security

IMT259 MUSIC SYNTHESIS II

Credit Hours: 3 Contact Hours: 4 Lecture Hours: 2 Lab Hours: 2 Other Hours: 0

This course requires students to utilize many of the skills they have developed throughout Music Theory and Composition I and II, Technical Musicianship, and Music Synthesis I. It is primarily a project-based course divided into three modules; Analysis of Music Production Styles and Techniques, MIDI Protocol, and Acoustics in a Musical Environment.

Pre-reqs:

IMT239

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-reqs:

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 Can be Taken Concurrently

Information Tech

Computer Security

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:

IMT132

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-reqs:

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

And IMT262

Information Tech

Computer Security

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-reqs:

IMT268

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-reqs:

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

Information Tech

Computer Security

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-reqs:

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-reqs:

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

Information Tech

Computer Security

NET134 CCNA PHASE I

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course introduces students to the networking field. Upon completion of this course, students can perform entry-level tasks in the planning, design, installation, operation, and troubleshooting of Ethernet and TCP/IP networks. Technologies include networking mathematics, terminology, models, media, LAN and WAN testing and cabling, Ethernet operation, switching, IP addressing and subnetting, IP, TCP, UDP, and application layer protocols.

Pre-reqs:

ECA146

Or NET121

NET135 CCNA PHASE II

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course focuses on initial router configuration, Cisco IOS software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Students will learn how to configure a router, manage Cisco IOS software, configure routing protocols on routers, and set access lists to control access to routers. Technologies include Cisco IOS Software Management, router configuration and file management, RIP and IGRP routing protocols, TCP/IP error and control messages, and Access control lists.

Pre-reqs:

ECA134

Or NET134 Can be Taken Concurrently

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.

Pre-reqs:

NET121

Information Tech

Computer Security

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-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: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: HS Math - 3

Or MTH093

And MTH094

MTH123

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-reqs:

Or ECA144

Or ECA145

NET120

And NET121

Information Tech

Computer Security

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-reqs:

Or ECA244

NET244

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-reqs:

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

Information Tech

Computer Security

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:

NET137

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

Information Tech

Computer Security

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-reqs:

NET137

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

Information Tech

Computer Security

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-reqs:

Or ECA277

NET220

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-reqs:

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

Sciences

Biology

AGR121 Intro Sustainable Plant Sys

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course will explore the theory, methods and practices essential for successful small scale agriculture. Topics covered will include soil health and quality, basic plant biology, exploration of horticultural and agricultural plant species, the role of water in agricultural systems, and an introduction to integrated plant growing systems. Supporting laboratory and field experiences will cover topics in soil quality and analysis, water sampling and analysis, introductory plant propagation, visiting and evaluating local agriculture plant production systems, and analyzing current agriculture issues.

Pre-reqs:

Or Test & Score: ACT Math - 19

Or Test & Score: Accuplacer Elementary Algebra - 097

Or Test & Score: Compass Algebra - 039

Or Test & Score: M093 Transfer Prof/Placement - 3

And Test & Score: M094 Transfer Prof/Placement - 3

MTH093 Can be Taken Concurrently

And MTH094 Can be Taken Concurrently

AGR122 Plan Propagation Mthds Agr Sys

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course will explore the theory, methods and practices essential for successful propagation of plant materials used in small-scale sustainable agriculture systems. Topics covered will include a detailed evaluation of horticultural and agricultural plant species and their propagation methods. Supporting laboratory and field experiences will cover topics in plant propagation from various source materials, utilizing supporting technologies, visiting and analyzing local plant production facilities, and analyzing current issues related to plant propagation in agricultural systems.

Pre-reqs:

AGR121

And MTH125 Can be Taken Concurrently

AGR123 Adv Mthds Sustain Agri Prod

Credit Hours: 4 Contact Hours: 5 Lecture Hours: 3 Lab Hours: 2 Other Hours: 0

This course will explore the theory, methods and practices of advanced small-scale sustainable agriculture production systems. Topics covered will include advanced soil fertility and water management practices, ecological site design, polyculture systems, advanced pest and disease management, integrated plant/livestock systems, and utilizing protected/non-soil growing environments. Supporting laboratory and field experiences will cover topics in advanced methodologies, visiting and analyzing local facilities employing advanced systems, and analyzing current issues related to the design and application of these systems and methods.

Pre-reqs:

AGR121

And MTH125 Can be Taken Concurrently

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: 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: Reading - 3

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 body 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. Interactive computer simulations of physiological processes are introduced. This is the first course in a two-semester sequence.

Pre-reqs:

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, additional interactive computer simulations 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-reqs:

BIO121

Or BIO123

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

Pre-reqs:

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-reqs:

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.

Pre-reqs:

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-reqs:

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

Pre-reqs:

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.

Pre-reqs:

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

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-reqs:

BIO122

Or BIO123

Sciences

Biology

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

BST120 INTRO TO BIOTECHNOLOGY

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

This course will introduce students to the historical and technical concepts responsible for the rapidly growing biotechnology industry. Topics include the history of biotechnology applications such as pharmaceutical research and manufacturing, advancements in agricultural productivity as well as identifying the basic techniques and instrumentation used in these applications.

Pre-reqs:

Sciences

Biology

BST121 BASIC BIOTECHNOLOGY METHODS

Credit Hours: 1 Contact Hours: 2 Lecture Hours: 0 Lab Hours: 2 Other Hours: 0

Students will be exposed to and practice the various techniques used in a modern biotechnology lab. Such techniques include basic laboratory measurement and calculations(introducing micro- and nano- scale), pipetting, reagent preparation, detailed note taking, record keeping, etc. In addition, students will be taught to follow standard lab protocols to ensure good lab practices and adherence to basic governmental and safety regulations.

Pre-reqs:

BST120 Can be Taken Concurrently

BST122 ADVANCED BIOTECHNOLOGY METHODS

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

This course expands on the techniques and protocols introduced to the students in BST121. Advanced biotechnology/bioscience techniques such as gel electrophoresis, centrifugation, cellular and molecular sample preparation and handling will be added, while comprehensively reinforcing and strengthening skills in the performance of basic techniques and protocols.

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: Compass Algebra - 052

Or Test & Score: GED Mathematical Reasoning - 1

Or Test & Score: HS Math - 3

BST121

And MTH123

BST130 BIOTECHNOLOGY SEMINAR I

Credit Hours: 1 Contact Hours: 1 Lecture Hours: 1 Lab Hours: 0 Other Hours: 0

A seminar course presented in a "journal-club" format. Students will read and discuss articles covering the latest techniques and trends used in the biotechnology industry. Guest speakers will be invited to present overviews of their work to the group.

Pre-reqs:

Sciences

Biology

BST221 CELL AND TISSUE CULTURE

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

Cell and tissue culture are two of the most widely used techniques in biotechnology. In this course students will cover the techniques used for maintaining living cells in culture: aseptic technique, counting cells, subculturing, cryopreservation (freezing) and thawing. Students will obtain hands-on training in all techniques listed above. Lecture and discussion sessions will include the techniques mentioned above as well as the following topics:cell culture equipment, contamination, optimization of growth conditions, recombinant DNA transfection and the future of tissue engineering.

Pre-reqs:

BST122

BST222 CELLULAR AND SUBCELLULAR SEPTN

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

Students will learn the various strategies and techniques used to purify and characterize biomolecules, with an emphasis on protein. Purification techniques to be employed in the lab include fractionation, centrifugation and low/high-pressure chromatography followed by characterization procedures such as electrophoresis and spectrometry.

Pre-reqs:

BST122

BST225 BIOTECHNOLOGY INSTRUMENTATION

Credit Hours: 2 Contact Hours: 3 Lecture Hours: 1 Lab Hours: 2 Other Hours: 0

This course will introduce students to the variety of instrumentation used in a biotechnology lab. Students will master the function and use of each instrument as well as proper maintenance, calibration, documentation techniques and protocols.

Pre-reqs:

BST122

Sciences

Biology

BST240 BIOINFORMATICS

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

Due to the large volume of data being generated and shared by the biotechnology community bioinformatics is an important biotechnology discipline. Utilizing computers, students will explore molecular geometric structure, sequence analysis, alignment and comparison, database mining and genome mapping.

Pre-reqs:

BST250 BIOPROCESSES AND MANUFACTURING

Credit Hours: 3 Contact Hours: 5 Lecture Hours: 2 Lab Hours: 3 Other Hours: 0

In this course students will learn the processes used for large scale biotechnology related production processes such as fermentation with a focus on regulatory and quality assurance aspects of this type of manufacturing, such as Good Lab Practices (GLP), Good Manufacturing Practices (GMP) and procedures/practices defined by the International Standards Organization (ISO).

Pre-reqs:

BST122

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

Sciences

Biology

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-reqs:

Or Test & Score: ACT Math - 27

Or Test & Score: Accuplacer College-level Math - 085

Or Test & Score: Compass Algebra - 084

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-reqs:

CST121

ECO241 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-reqs:

BIO142

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 OSC011, effective Summer 2013

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-reqs:

Chemistry

CHM100 Applying Chemistry to Society

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

Pre-reqs:

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: M093 Transfer Prof/Placement - 1

And Test & Score: M094 Transfer Prof/Placement - 1

Or Test & Score: HS Math - 3

Or MTH093

And MTH094

Or MTH105

Or MTH106

Or MTH107

MTH123

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.

Pre-reqs:

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: HS Chemistry - 2

CHM101

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-reqs:

Or Test & Score: HS Chemistry - 2

CHM101

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-reqs:

CHM121A

Sciences

Chemistry

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-reqs:

Or Test & Score: HS Chemistry - 2

CHM101

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

Sciences

Chemistry

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-reqs:

CHM141A

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-reqs:

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-reqs:

CHM105

Or CHM121

Or CHM141

Sciences

Chemistry

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 sequence approved Spring 2012.

Pre-reqs:

CHM142

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 sequence approved Spring 2012.

Pre-reqs:

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

Sciences

Chemistry

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

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.

Pre-reqs:

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: M093 Transfer Prof/Placement - 2

Or Test & Score: HS Math - 3

Or Test & Score: Reading - 3

And IDS102

MTH093

Or MTH105

Or MTH106

Or MTH107

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.

Pre-reqs:

Or MTH108

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 MTH125

Or MTH125B

And MTH130

And MTH130

MTH135

Or MTH135B

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 MTH125

Or MTH125B

And MTH130

And MTH130

MTH135

Or MTH135B

PHY121B COL PHYSIC I B W 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-reqs:

PHY121A

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

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:

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-reqs:

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