



# STARK STATE COLLEGE







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6200 Frank Ave NW | North Canton Ohio 44720 | 330-494-6170 | 800-797-8275

[www.starkstate.edu](http://www.starkstate.edu)





# STARK STATE COLLEGE

## WELCOME TO STARK STATE COLLEGE AND THE UNIVERSITY SYSTEM OF OHIO

**Ohio**

**Board of Regents**

**Ted Strickland**, Governor  
**Eric D. Fingerhut**, Chancellor

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 maintains an "open door" policy and 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.

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### 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 or one-year certificate program, and who is completing the coursework on a part-time or full-time basis after a lapse of years, should seek periodic advising from the appropriate department chair due to possible changes to the requirements.*

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*Stark State College is committed to equal opportunity for all and does not discriminate on the basis of race, color, religion, national origin, gender, gender identity or expression, sexual orientation, age, disability or veteran status.*

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

**For most current class schedule: [www.starkstate.edu](http://www.starkstate.edu)**



# STARK STATE COLLEGE

## ADMINISTRATIVE OFFICERS

**Para M. Jones, PhD**

President, Stark State College

**Thomas A. Chiappini**

Chief Operating Officer and Treasurer

**Dorey Diab, PhD**

Provost and Chief Academic Officer

**Michael Droney**

Chief Information Officer

**Paul R. Feaser II**

Vice President of Development and  
Executive Director of the Stark State College Foundation

**Celeste Jones**

Vice President for Human Resources

**Cheryl A. Rice**

Vice President for Student Services/Enrollment Management

## MISSION STATEMENT

Stark State College provides quality, high-value associate degrees and professional development in a student-centered learning environment.

The College is dedicated to individual learning, transferable higher education and career success.

We advance quality of life through accessibility, diversity and business and community partnerships.

## VISION STATEMENT

Stark State College will be a first choice in higher education and a catalyst for economic growth and community prosperity.

## BOARD OF TRUSTEES

**Michael Thomas, DDS**

Chair

**Jeffrey Halm, Esq.**

Vice Chair

Kari L. Groh

Stan W. Jonas

Christopher J. Maurer

William P. Schweizer

Fonda P. Williams II



# GENERAL LEARNING OUTCOMES

## PURPOSE STATEMENT

General education provides students with a breadth of knowledge and capacity for lifelong learning. It stretches students' minds and broadens their experiences. General education prepares students with the skills to communicate effectively, problem solve, locate and gather information, and think critically and logically. It teaches students to understand and appreciate diversity and its interrelationships as well as community engagement and informed citizenship.

Our general education philosophy is embedded in our vision and mission 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 which 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 providing the best education possible to prepare our graduates for career success in an evolving global economy. Faculty who are credentialed and experienced in their fields, along with state-of-the-art facilities and equipment, position Stark State to provide high-quality education at an affordable cost to the northeast Ohio region.

With an enrollment of more than 15,000 credit and 4,000 noncredit students, Stark State College is the largest of five colleges and universities in Stark County, and is the fifth largest of Ohio's 24 public two-year colleges in the University System of Ohio. Stark State graduates are in demand by regional employers who recognize their high level of training and preparation for career success.

The College offers more than 250 majors, one-year and short-term certificates in business and entrepreneurial studies, engineering technologies, health sciences, education and human services, information technologies, liberal arts, math and sciences. Degrees awarded are the associate of arts (AA), associate of science (AS), associate of applied science (AAS), associate of applied business (AAB) and associate of technical studies (ATS). The College also offers degrees in conjunction with Kent State University in associate of arts, associate of applied business and associate of science. Stark State also works closely with other public and private four-year colleges and universities in providing a seamless transfer of credits.

A wide range of short-term certificates helps students improve skills and gain a competitive edge in society, while creating a path to a one-year certificate, associate degree, bachelor's degree and beyond.

### **AFFORDABLE, UNIVERSITY TRANSFER DEGREES**

Students often get their start at Stark State College thanks to its affordability and transferability. The associate of arts (AA) and the associate of science (AS) degrees open a multitude of pathways for graduates to pursue a baccalaureate degree in virtually any area of study. These degrees are designed to promote higher educational attainment and the establishment of successful careers. Both the AA and the AS degrees may be earned directly through Stark State College or through a partnership with Kent State University at Stark that awards the degree jointly.

The AA and AS degrees qualify as university transfer degrees for those who

- plan to pursue a bachelor's degree at a four-year institution,
- are undecided about a career path,
- or are seeking retraining for career growth.

Both degrees provide the opportunity to pursue a baccalaureate degree or move directly into the workforce. The associate of arts degree focuses on the social sciences and the humanities. This transfer degree is ideal for the student interested in pursuing a bachelor of arts degree in social sciences, communications, business, education or the arts. The associate of science degree provides a solid background in mathematics, natural sciences, or technology and leads to career paths in those fields, as well as transfer options to bachelor of science programs at baccalaureate institutions.

Stark State also offers a transfer module, which is comprised of up to 36-40 semester hours of credit courses, guaranteed to transfer to all state-supported colleges and universities in Ohio. In addition, the College has a number of articulation (degree transfer) agreements with universities and colleges that enable students to transition from associate degree programs into baccalaureate degree programs. For more information, visit [www.ohiohighered.org/transfer](http://www.ohiohighered.org/transfer).

Stark State's affordability is enhanced by knowledgeable financial aid specialists who help students explore the many grants, loans and scholarships that can help them finance their education. Approximately 60% of all Stark State students received some form of financial aid.

## **PARTNERS IN ECONOMIC GROWTH AND DEVELOPMENT**

For more than 50 years, Stark State College has played a vital role in the economic growth and development of the region through its strong tradition of providing educational and training services to employers and residents. Community and business partnerships are vital to Stark State's success. The College is proud to partner with Rolls-Royce Fuel Cell Systems (US) Inc., The Timken Company, Diebold Inc., Lockheed Martin, Kohler Coating, the emerging oil and gas industry in Ohio and many others in the energy and emerging technology fields.

## **STATE-OF-THE-ART FACILITIES**

Serving the community is a strong part of Stark State's heritage. A new Business and Entrepreneurial Center houses a state-of-the art business incubator program to support new business endeavors in the region. The College's Dental Hygiene Clinic provides dental hygiene services to the community at reduced rates by students-in-training who are 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 by working directly with the public in a supervised setting. Those same students are often at community events providing free chair massages as a public service and as training for students.

Several new state-of-the-art buildings have opened in recent years to accommodate Stark State's consistent growth. Our Health Sciences building opened in 2009 to accommodate the region's growing need for highly skilled health care workers. The W.R. Timken Center for Information Technology houses the information technology majors. The Ralph Regula Wellness and Therapy Center is an educational center for students studying physical therapy assisting and occupational therapy assisting.

## **EXPERIENCED, CREDENTIALLED FACULTY SERVE OUR DIVERSE STUDENTS**

The average Stark State student fits the profile of the typical two-year college student in the nation: 60% of SSC students are female, 65% attend college part time and 42% are the first generation in their families to attend college. The

average age of Stark State's students is 29. The number of minority students at SSC has grown in recent years and today represents more than 23% of total enrollment – higher than minority representation in Stark County.

The College has approximately 200 full-time faculty and, during peak enrollment, more than 540 adjunct faculty. More than 60% of the College's full-time faculty members have master's degrees and 14% have doctorate degrees. The fact that many faculty members 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.

The College also operates with an extensive advisory committee system. Some 350 individuals representing more than 180 companies and organizations serve the College in an advisory capacity on more than 35 committees that support academic programs and student services. Advisory members review curriculum and provide input on current trends in their industries.

Stark State College is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools. Many technology programs also are accredited by their respective licensing/accrediting organizations.

Stark State is located in northern Stark County adjacent to I-77, conveniently located for students from Stark, Carroll, Columbiana, Holmes, Medina, Portage, Summit, Tuscarawas and Wayne Counties. Satellite centers are located in Alliance, Barberton, Carrollton and Downtown Canton to provide educational access where our students work and live.

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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](http://www.starkstate.edu/policies). Printed copies may be requested in the Office of Admissions/Student Services.

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# ACCREDITATIONS

## STARK STATE COLLEGE

The Higher Learning Commission of the North Central Association of Colleges and Schools, 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.ncahlc.org

## BUSINESS AND ENTREPRENEURIAL STUDIES DIVISION

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

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

## EDUCATION AND HUMAN SERVICES DIVISION

EARLY CHILDHOOD EDUCATION Accredited 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

## ENGINEERING, INDUSTRIAL AND EMERGING TECHNOLOGIES DIVISION

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

## HEALTH SCIENCES DIVISION

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

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.anfpoline.org

FIRE/EMERGENCY MEDICAL All accreditation in these two areas is through: 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

HEALTH INFORMATION MANAGEMENT The health information management technology program is accredited by the Commission on the Accreditation of 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; 312-233-1131; www.cahiim.org

MEDICAL ASSISTING The Stark State Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Medical Assisting Education Review Board (MAERB) Commission on Accreditation of Allied Health Education Programs; 1361 Park Street, 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 from the Ohio Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC): National League for Nursing Accrediting Commission, 3343 Peachtree Road, NE, Suite 500, Atlanta, GA 30326; 404-975-5000 (phone); 404-975-5020 (fax); www.nlnac.org, www.nursing.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; http://www.captionline.org/home.aspx; 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 DIVISION

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, 8224 Old Courthouse Road, Vienna, VA 22182-3808; 703-556-6272; www.ncraonline.org

## eStarkState

Online degrees offered by Stark State College have been accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools, 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.ncahlc.org.

## STARK STATE COLLEGE APPROVALS

### EDUCATION AND HUMAN SERVICES DIVISION

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

### HEALTH SCIENCES DIVISION

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

### CORPORATE SERVICES AND CONTINUING EDUCATION DIVISION

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

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***Information about the accreditation process for listed technologies may be requested from the respective division offices, or by contacting the accrediting agency directly.***

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# ADMISSION TO THE COLLEGE

All individuals interested in pursuing an education at Stark State College are welcome to apply for admission. To assure successful completion of an academic program, a candidate working toward an associate degree should be a high school graduate or have completed the General Educational Development (GED) equivalency. An application for admission may be obtained online at [www.starkstate.edu](http://www.starkstate.edu).

## ADMISSION PROCEDURES

Admission to Stark State College is open to all applicants. International students should also refer to the section titled International Student Admissions. The following procedures should be followed

1. Submit an application, which may be obtained online at [www.starkstate.edu](http://www.starkstate.edu).
2. Provide the Academic Records/Registrar's Office with an official final transcript of your high school records or GED scores. This may be done through the high school guidance office or the Department of Education Office. Students who have attended another college or university must request copies of transcripts be sent directly to Stark State College.
3. Request that results of the ACT or SAT be sent directly to the College by the testing service. This requirement is waived for students who have been out of high school for more than three years.
4. The College's assessment program assists students in the registration process and helps assure the best placement for academic success. All students must complete the assessment process for advising purposes. Assessment may include transcript evaluation and/or completion of the computerized COMPASS placement assessment in English, reading, math and basic computer skills.
5. A personal interview may be requested in cases where other screening procedures do not provide sufficient information.
6. Students who have attended another college or university must request copies of transcripts be sent directly to Stark State College.
7. Students seeking admission to a health technology program must complete a separate health application.

## TRANSFER APPLICANTS

Coursework from other regionally accredited institutions of higher education designated in the Transfer Credit Practices of Designated Educational Institutions of the American Association of Collegiate Registrars and Admission Officers 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 the steps listed below to complete the admissions process:

1. Complete a Stark State College application. The application is available online at [www.starkstate.edu](http://www.starkstate.edu) or by contacting the Office of Admissions/Student Services at 330-494-6170.
2. Receive academic advising and approval from home institution for course(s) planned for enrollment at Stark State College. 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 College admissions counselor to review enrollment process. Contact the Office of Admissions/Student Services at 330-494-6170 with questions.

## INTERNATIONAL STUDENT ADMISSIONS

Stark State College welcomes qualified students from other countries and seeks to make their educational experience pleasant and meaningful.

All admissions requirements must be completed two months prior to start date.

1. In addition to those records mentioned under "Admissions Procedures" for all students, the following is required of the international student—
  - Proof of English language proficiency. Submit scores from the Test of English as a Foreign Language (TOEFL). This test is administered throughout the world in major cities. Registration materials for the test may be obtained by applying to TOEFL, Box 899, Princeton, NJ 08541.
  - Proof of adequate finances to meet the costs of fees, books, health insurance, room and board off-campus, transportation and personal expenses while attending Stark State College.
  - Proof of satisfactory completion of a program of education which is equivalent to high school in the United States. Any degree, diploma or certificate should be supported by a certified copy of the document and a translated copy where the original is not English.
  - A copy of your VISA/passport and admission number on your I-94 if currently in the United States.
2. Upon receipt of the aforementioned documents, the applicant for admission as an international student will receive a conditional acceptance letter. The acceptance is conditioned upon the applicant transferring adequate finances to Stark State College, which will be held in trust for the student. The student may withdraw trust account funds to meet reasonable expenses while attending Stark State College. The remainder of the trust account will be returned to the student upon graduation, transfer to another college or termination of attendance and departure from the United States.
3. Upon the receipt of funds from the applicant, the College will forward a letter of acceptance and the forms necessary to obtain a student visa.
4. To maintain a satisfactory student status at Stark State College, the international student must
  - be taking a full course of studies,
  - make satisfactory progress toward the degree goal, and
  - maintain a final balance to cover tuition and fees in the student's trust account at the College.

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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](http://www.starkstate.edu/policies). Printed copies may be requested in the Office of Admissions/Student Services.

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## 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 a full suite of Web-based Banner Self Service capabilities, ANGEL 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 counseling personnel 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.

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 COMPASS exam unless he/she has ACT scores. Students may elect to take COMPASS if they have ACT or SAT scores. Students may retake the COMPASS exam one time. 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 COMPASS 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

1. must provide documentation to support the learning,
2. must have documentation evaluated by the appropriate college personnel, and
3. will have this credit recorded on his or her transcript after the student successfully completes 12 hours at Stark State College, if credit is awarded. Successful completion is defined as a "D" or better.
4. wishing more information should contact the Office of Admissions/Student Services.

## 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. A maximum of 12 credit hours may be taken by examination without prior approval of the Board of Trustees. 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 being enrolled for 20 calendar days or more for a regular term, and seven days or more for an eight-week term.

## 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 the Office of Admissions/Student Services 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 the Office of Admissions/Student Services at 330-494-6170 for additional information.

## EARLY COLLEGE ADMISSION POLICY

Stark State College's early college admission program is designed to provide qualified high school students with access to college-level coursework. College courses taken under the early college admission program also may fulfill high school graduation requirements, if approved by the student's local school district. Two early college admissions programs offered at Stark State are dual enrollment and Post-Secondary Education Options.

Participation in the early college admission program at Stark State College is not intended to replace high school coursework, but rather to enhance educational opportunities available to high school students. For additional information, contact the Office of Admissions/Student Services at 330-494-6170.

## DUAL ENROLLMENT

High school students from partner high schools may enroll in dual enrollment at the high school or at the college. In either case, they can earn the same transferable college credit. Students must meet the college entrance testing requirements (COMPASS or ACT) and fulfill all prerequisites in order to enroll. They 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/dualenrollment](http://www.starkstate.edu/dualenrollment).



## POST-SECONDARY EDUCATION OPTIONS (PSEO)

Students who attend high schools that are not dual enrollment partners may participate in the PSEO program to enroll in classes on a Stark State College campus. They must notify their high school by March 30 of their intent and be approved by the high school. They must then meet College requirements, including GPA and qualifying ACT or COMPASS test scores. For specific information, visit [www.starkstate.edu/pseo](http://www.starkstate.edu/pseo).

## 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 Board of Regents and the Ohio Department of Education, has divided the state into six regional centers. Stark State College now partners with Kent State University, the University of Akron and Youngstown State University in the newly formed 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 I.D. CARDS

Identification cards will be mailed to all students who apply to at the College when they are accepted. This card also serves as the student's library card. Students are expected to carry I.D. cards at all times. Loss or theft of an I.D. card should be reported to the Academic Records/Registrar's Office.

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## STUDENT RESPONSIBILITY

Students are responsible for being familiar with and adhering to College Policies and Procedures as published on the College Web site at [www.starkstate.edu/policies](http://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](http://www.starkstate.edu/policies). Requests for printed copies of policies and procedures, or questions regarding any policy or procedure, should be directed to the Office of Admissions/Student Services.

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# STUDENT SERVICES

The Office of Admissions/Student Services provides non-instructional services to students. Stark State 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.

## COUNSELING SERVICES

The advising and student engagement department offers free and confidential counseling services to support students as they pursue their academic goals. Services include individual counseling, seminars, outreach, support groups and referrals to community support agencies. Students are encouraged to make full use of counseling services to assist them in achieving their personal and academic goals.

## OFFICE OF MULTICULTURAL STUDENT AFFAIRS

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 Multicultural Affairs is available to provide

- academic, personal and group advising
- referrals for scholarships, financial 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 Multicultural Student Affairs at 330-494-6170, Ext. 4274.

## DISABILITY 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. Handicapped parking by permit is available, as well as accessible restrooms, elevators, electric doors and Braille tactile room signs. 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 must provide documentation of their disability, test reports and school records 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.

## NEW STUDENT ORIENTATION

New student orientation is designed to familiarize new students with college policies, resources and support services. Orientation provides students with essential information for successfully beginning and progressing toward their academic goals. Registered students are invited to attend orientation prior to beginning their first semester.

## eStarkState 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/estarkstateorientation](http://www.starkstate.edu/estarkstateorientation).

## DIGITAL LIBRARY AND LEARNING RESOURCE CENTER

The Stark State Digital Library, adjacent to the College Atrium, is a collection of digital information, resources, links and services as well as people available to assist students. A librarian provides assistance and computer services to students and classes. Refer to the College Web site for hours and more information. The Learning Resource Center, which houses a collection library and other resources, is located east of the main student parking lot and serves both Stark State College and Kent State University-Stark Campus. Refer to the College Web site for current hours or call 330-499-9600 for library information.

## STARK STATE COLLEGE STORE

Textbooks, supplies and retail items are available in the College Store, which is open during all hours of registration. Regular store hours are Monday through Thursday, 8:30 a.m. to 8 p.m. and Friday, 8:30 a.m. to 4 p.m., or as posted. The College Store may be accessed online at [www.starkstate.edu/bookstore](http://www.starkstate.edu/bookstore).

## 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>

## OPEN LABS AND WIRELESS ACCESS

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

## HELP DESK

The Help Desk provides technical support on systems used at the College. Access the Help Desk from [mystarkstate](http://mystarkstate), via phone at Ext. HELP or in person in Room B219.

## 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/Student Services, from the staff of any of the computer labs, at [www.starkstate.edu](http://www.starkstate.edu) and in the Student Handbook.

## 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 Review 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 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](http://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 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, academic dishonesty, or should neglect academic duties, the College administration will take such action as the particular offense requires. College disciplinary action may include (a) informal reprimand, (b) formal reprimand, (c) administrative probation, (d) a definite period of suspension, (e) an indefinite period of suspension, and (f) expulsion.

## STUDENT HEALTH INSURANCE

Students may subscribe to the student health group insurance plan. This is a voluntary program to provide hospitalization insurance to those students no longer covered by their parents' policy. Information is available at the Cashier's Office and the Office of Admissions/Student Services.

## Teaching and Learning Division

The Teaching and Learning Division offers students a variety of services – including college skills seminars, individual student educational support and referral information—to assist them in learning academic and problem-solving skills. Special academic programs are housed here, as well as the College's testing services and college-wide professional development activities.

## THE TESTING CENTER

The Testing Center 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.

## SUCCESS NOW SEMINARS/ACADEMIC SUPPORT

Seminars to help students learn college success skills – such as time management, study skills or overcoming test anxiety – are presented to students either in the classroom or through a series of free seminars. Visit the Teaching and Learning Office in B230 or the College website at [www.starkstate.edu/teachingandlearning](http://www.starkstate.edu/teachingandlearning) for information about seminar dates and times. Students needing individual help in these areas can receive one-on-one educational counseling in the Teaching and Learning Division. All information shared during sessions is kept strictly confidential.

## 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)

The TRiO-UBMS program 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.

## BRIDGE (Building Relationships, Integrating Divisions, Generating Excellence)

BRIDGE is a cross-divisional faculty/staff team that provides College faculty and staff professional development activities throughout each academic year. A faculty/staff retreat is held off campus each year to allow College employees to discuss ways of improving teaching and service to students.

# CAREER DEVELOPMENT

The Career Development Office at Stark State College is dedicated to empowering students and alumni in developing career planning and job search skills, and facilitating mutually beneficial relationships between employers, students and alumni.

All students are encouraged to become familiar with the Career Development Office (S100) during their first semester.

The Career Development Office provides:

- current information on job search materials and techniques
- information on employers for job search preparation
- information on various careers in the form of workshops, software, DVDs and online career resources

## Job Search Assistance

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

## Student and Part-time Jobs

The Career Development Office maintains a job board outside of Room S100 where student and part-time jobs are posted. Notices of job openings are received from area employers and individuals and are available to all interested students. Work Study jobs on campus are processed through the Financial Aid Office.

## 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 will also 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

The internship and placement coordinator works with students to help them connect with employers for professional work experience opportunities. Students should have a minimum GPA of 2.0, sophomore standing and have relevant coursework completed in their declared major. This program is 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.

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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](http://www.starkstate.edu/policies). Printed copies may be requested in the Office of Admissions/Student Services.

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## Career Guidance Program

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 aptitudes, interest and values and may be summarized with a counseling session. More information on this program is available from the Career Development Office.

## Alumni Assistance

The Career Development Office offers free lifelong services for graduates as well. Graduates may work through the alumni affairs coordinator to learn more about these and other opportunities, such as mentorships.

# 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 two million members and more than 1,250 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 3.40. 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.

## 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 adjacent to the campus.

## 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. Center hours are Monday through Friday, 7 a.m. to 6 p.m. Children may be enrolled by the semester. The center is located at the John Knox Presbyterian Church, 5155 Eastlake N.W., across from the campus. For childcare registration and information, call 330-499-0909.

## STUDENT ORGANIZATIONS/CLUBS

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 CLUBS

For more information, click on these links:

- American Society of Civil Engineers (ASCE)
- American Society of Mechanical Engineers (ASME)
- Association of Information Technology Professionals (AITP)
- Association for Medical Laboratory Technicians (AMLT)
- Beta Beta Beta (Tri Beta) Biological Honor Society
- C3 (formerly Animation/Club Sunaarashi)
- Chess Club
- Criminal Justice Student Association
- Cultural Diversity Club
- Engineering Technology Club
- Environmental Club
- Heads Up
- High Technology Crime Investigation Association (HTCIA)
- Institute of Electrical and Electronic Engineers (IEEE)
- Institute of Management Accountants (IMA)
- International Association for Hydrogen Energy
- International Club
- Kappa Delta Pi International Honor Society in Education
- LGBTS Global
- Native American Indian Organization
- Phi Theta Kappa Honor Society
- Respiratory Therapy Club
- Ski and Snowboarding Club
- Social Science Club
- Society of Manufacturing Engineers (SME)
- Society of Women Engineers (SWE)
- Stark Raving Writers
- Stark Voices – Student Publication/Newspaper
- Stark State College Association of Medical Assistants
- Student Ambassador Program
- Student American Dental Hygienist Association (SADHA)
- Student Dietary Association at Stark State College
- 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)
- Students in Free Enterprise (SIFE)
- Students in Human and Social Services Club
- Sustainability Student Group
- TOPS (Taking Off Pounds Sensibly)
- Veterans Club at Stark State College
- Video Game Club
- Women of Color

# FINANCIAL AID

The Financial Aid Office 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 financial aid 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](http://www.starkstate.edu/finaid) or in the Financial Aid Office located in S308.

## 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](http://www.starkstate.edu).
- Apply for Financial Aid All students applying for financial aid must complete the Free Application for Federal Student Aid (FAFSA). Apply via [www.fafsa.ed.gov](http://www.fafsa.ed.gov). The Stark State College school code is 011141.
- Apply for Student Loan If you are interested in a federal student loan, apply via [www.studentloans.gov](http://www.studentloans.gov).
- Provide Transcripts of Prior Learning Submit all transcripts including high school and previous college transcripts or, if applicable, submit a copy of your GED certificate or scores.

## REQUIRED FORMS AND PRIORITY DATES

### Summer Session

March 1 FAFSA filing deadline  
April 1 Required documentation deadline  
May 1 Online loan request deadline

### Fall Session

May 1 FAFSA filing deadline  
June 1 Required documentation deadline  
July 1 Online loan request deadline

### Spring Session

Oct 1 FAFSA filing deadline  
Nov 1 Required documentation deadline  
Dec 1 Online 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 \$602 to \$5,550 per year, based on financial need. Eligibility is based upon need, enrollment and cost of education.

### 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 \$400 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 the Financial Aid Office. 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 Academic Records/Registrar's Office 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](http://www.starkstate.edu/scholarships).

## SOCIAL SERVICE PROGRAMS

**Bureau of Vocational Rehabilitation (BVR)** Educational assistance may be available for students with special needs. Call the Canton (330-438-0500) or Akron (330-643-3080) BVR 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.

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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](http://www.starkstate.edu/policies). Printed copies may be requested in the Office of Admissions/Student Services.

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## 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.

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

**Unsubsidized Direct Loans** Students who do not qualify for a subsidized Direct Loan may borrow up to the maximum amounts designated on the award notification through an unsubsidized Direct Loan. Loan payments can be deferred as long as the student is enrolled at least half-time. Interest will accrue and can be paid by the borrower while in school and during the grace and repayment period. Independent students have the option of borrowing an additional \$4,000 in unsubsidized loans.

**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, according to the terms negotiated by the bank. We recommend students first utilize all eligibility for grants and the Federal Direct Loans before receiving a federal PLUS. This is a loan and must be repaid. Funds are made in multiple disbursements and given to the parent(s) after tuition and fees have been paid.

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### ***Effective Fall 2012***

## STANDARDS OF ACADEMIC PROGRESS (SAP)

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 disqualified from future financial aid.***

### **SAP requirements**

Stark State College requires that any student who applies for or receives federal financial aid makes satisfactory academic progress toward an Ohio Board of Regents (OBR) approved degree or certificate.

Satisfactory academic progress is measured as follows:

- Overall grade point average of 2.0
- Completion of 67% of the cumulative attempted credit hours, including hours of repeated coursework
- Completion of OBR 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 the Financial Aid Office and includes accepted transfer credit hours and up to 30 attempted credit hours of required developmental coursework.

Successful grade completions are: A, B, C, UC, D, UD, CR

Unsuccessful grade completions are: F, W, IN, NC, NA

**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 the Financial Aid Office 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.**



# FEES, METHODS OF PAYMENT, REFUNDS AND RESIDENCY REQUIREMENTS

Stark State College is committed to providing an excellent college education at 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 2012-13 academic year (effective summer 2012) is listed below and may be found online at [www.starkstate.edu/tuition](http://www.starkstate.edu/tuition).

## STARK STATE COLLEGE OHIO RESIDENTS FEE SCHEDULE 2012-2013

Credit Hrs	Instructional Fee	General Fee	Total *
1	116.50	30.50	147.00
2	233.00	61.00	294.00
3	349.50	91.50	441.00
4	466.00	122.00	588.00
5	582.50	152.50	735.00
6	699.00	183.00	882.00
7	815.50	213.50	1,029.00
8	932.00	244.00	1,176.00
9	1,048.50	274.50	1,323.00
10	1,165.00	305.00	1,470.00
11	1,281.50	335.50	1,617.00
12	1,398.00	366.00	1,764.00
13	1,514.50	396.50	1,911.00
14	1,631.00	427.00	2,058.00
15	1,747.50	457.50	2,205.00
16	1,864.00	488.00	2,352.00
17	1,980.50	518.50	2,499.00
18	2,097.00	549.00	2,646.00
19	or more hours - add an additional \$147.00/cr hr		

### MISCELLANEOUS FEES:

Processing Fee .....	\$75.00
Graduation Fee .....	35.00
Background Check Fee .....	30.00
Credit by Examination Fee... ..	73.50/cr hr
Locker Fee .....	4.50/sem
Parking Permit .....	40.00/yr
Facilities Fee .....	12.00/cr hr
.....(included in General Fee)	
Technology Fee .....	5.00/cr hr
.....(included in General Fee)	

### FEES YOU CAN AVOID:

Installment Fee* .....	20.00
Graduation Late Fee** .....	60.00
Parking Fine .....	15.00

### DIVISIONAL FEES:

Dental Hygiene Facility Fee.....	
.....	700.00/sem

- \* Out-of-state residents add \$91.00/credit hour to totals.
- + Avoid the Installment Fee by paying your bill in full, by cash, check or credit/debit card.
- ++ Avoid the Graduation Late Fee by applying and paying for graduation by due date.

Printed copies of the current Schedule of Tuition and Fees are available in the following offices:

- Office of Admissions/Student Services
- Academic Records/Registrar's Office
- Business Office
- Cashier's Office
- Financial Aid Office
- Information desk/switchboard

## FEES

### 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.

### Instructional Fee

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

### General Fee (Includes Technology And Facilities Fees)

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

### Out-Of-State Residents Tuition Surcharge

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

### Locker Fee

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

### 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.

### 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.

### Parking Permit Fee

Students are assessed a small fee for parking privileges in designated areas.

### Graduation Fee

A one-time fee that covers the processing of documents necessary for graduation must be paid at the time of application for graduation. Deadlines for application are posted at [www.starkstate.edu/graduation](http://www.starkstate.edu/graduation). A late application process fee will apply for applications received after posted deadlines.

### 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 may be required. A fee is assessed to cover the cost of processing the background check.

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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](http://www.starkstate.edu/policies). Printed copies may be requested in the Office of Admissions/Student Services.

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## METHODS OF PAYMENT

### Payment In Full 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 brochure explaining this plan is available in the Office of Admissions/Student Services or in the Business Office. 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 take 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 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. Fee refunds are automatic, and students are not required to complete academic withdrawal procedures.

Instructional fees, general fees, and tuition surcharge 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 tenth through the sixteenth day of the semester - 60% refund
- d) On the seventeenth through the twentieth day of the semester - 40% refund
- e) On the twenty-first day of the semester and beyond - no refund

Instructional fees, general fees, and tuition surcharge 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 eleventh day of the semester - 60 % refund
- c) On the twelfth through the thirteenth day of the semester - 40% refund
- d) On the fourteenth day of the semester and beyond - no refund

Instructional fees, general fees, and tuition surcharge 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 tenth day of the semester - 40% refund
- d) On the eleventh day of the semester and beyond - no refund

Instructional fees, general fees, and tuition surcharge 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 thirty 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 at the end of each semester to verify the last day attended in each class.

## MEDICAL REFUNDS

In the event of a severe or life threatening medical condition to the student or an immediate family member, a student may appeal for consideration above and beyond the normal refund policy. Such appeals must be made in writing no later than 30 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. Verbal or incomplete requests will be refunded according to the normal refund policy. All appeals will be reviewed within 30 days of receipt and students 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 Board of Regents 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 Board of Regents 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 Buckeyes 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 Web site at [www.starkstate.edu/policies](http://www.starkstate.edu/policies) at all times, including but not exclusive to

Academic Forgiveness  
Academic Honors  
Academic Probation and Dismissal  
Academic Regulations  
Appeals  
Attendance  
Audits  
College Computing Resources  
Concealed Weapons  
Computer Usage  
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  
Late Registration  
President's List  
Probation  
Standards of Academic Progress (SAP)  
Student Records  
Transcripts  
Transfer Credit  
Withdrawal

The site is searchable at [www.starkstate.edu/policies](http://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](http://www.starkstate.edu/policies). Requests for printed copies of policies and procedures, or questions regarding any policy or procedure, should be directed to the Office of Admissions/Student Services at 330-494-6170.

# 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](http://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, housing, 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](http://www.regents.ohio.gov/transfer).

## 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](http://www.starkstate.edu/tags).

## u.select (FORMERLY CAS)

This systems provides course equivalency guides, academic programs, course offerings, transfer course evaluations and degree audit reporting through a Web environment from all Ohio u.select institutions. Students contemplating a transfer may submit their coursework to any u.select institution for evaluation against that institution's academic programs. For more information: [www.oh.transfer.org/cas/](http://www.oh.transfer.org/cas/).

## 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](http://www.starkstate.edu/transfermodule).

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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](http://www.starkstate.edu/policies). Printed copies may be requested in the Office of Admissions/Student Services.

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## TRANSFER MODULE COURSES

### English and Communications

Effective Speaking	COM121
Interpersonal Communications	COM122
College Composition	ENG124
Technical Report Writing	ENG221
Business Communication II	ENG231

### Mathematics

College Algebra	MTH125, MTH125A, MTH125B
Precalculus	MTH126, MTH126A and MTH126B
Trigonometry	MTH128
Concepts of Calculus	MTH221
Statistics	MTH222A and MTH222B
Analytic Geometry – Calculus I	MTH223A and MTH223B
Analytical Geometry and Calculus II	MTH224

### Arts and Humanities

British Literature I	ENG 233
British Literature II	ENG 234
American Literature I	ENG 236
American Literature II	ENG 237
US History I-To 1877	HIS 121
US History II-From 1877	HIS 122
Ethics	PHL122
Understanding Architecture +	ARCH10001
Art Survey +	ARTH12001
Art History I:	
Ancient and Medieval Art +	ARTH22006
Art History II:	
Renaissance to Modern Art+	ARTH22007
Intro to Shakespeare +	ENG21054
Great Books I +	ENG22071
Great Books II+	ENG22072
Major Modern Writers:	
British and U.S. +	ENG22073
History of Civilization I +	HIST11050
History of Civilization II +	HIST11051
History of the U.S.:	
The Formative Period +	HIST12070
History of the U.S.:	
The Modern Period +	HIST12071
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
Psychology of Work	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

Anatomy and Physiology I	BIO121
Anatomy and Physiology II	BIO122
Science, Energy and the Environment	BIO126
Human Biology	BIO127
Principles of Microbiology	BIO221
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
Principles of Physics	PHY101
Physics I	PHY121, PHY121A and PHY121B
Physics II	PHY122

+ Indicates courses offered at Kent State – Stark campus  
For the Transfer Module in chart form, [www.starkstate.edu/transfermodule](http://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
- Cocaine Anonymous
- Alcoholics Anonymous
- Narcotics Anonymous
- Co-dependency 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 Office of Admissions/Student Services
- Stark State College Security Department
- Interfaith Campus Ministry
- Stark State College counseling services  
Elizabeth Inkinen-Juergensen – 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.



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2008

## ACCOUNTING - COMPUTER INFORMATION MAJOR

Effective Summer 2012

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	
ACC225 or ACC 237	Auditing+++ or Fraud Examination+++	4	ACC222 (Co-requisite)  ACC133	
ACC228	Business Taxation	4	ACC132	
ACC229	Computerized Accounting Applications	3	ACC132 or ENT123 or ACC121 and ITD122	
ECA148	Microsoft Excel: Analyzing Data to Make Better Decisions	3	ITD122 and ECA253	
ECA152	Microsoft Access: Developing Robust Applications	3	ITD122 and ECA253 and MTH222	
<b>TOTAL</b>		<b>29</b>		
TECHNICAL ELECTIVE I (must select 1)		Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC124	Individual Taxation	4	BUS124	
ACC227	Payroll Accounting	3	ACC132 or ACC121	
ACC234	Advanced Payroll	3	ACC227	
ACC235	Forensic Accounting	3	-	
BTD223	Business Co-op	3	Department Chair Approval	
<b>TOTAL</b>		<b>3/4</b>		
TECHNICAL ELECTIVE II (must select 1)		Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA139	Microsoft SQL Server Database Design	3	EAC253	
ECA228	Internet/Intranet Design and Development ^	3	IDS101 or Proficiency	
<b>TOTAL</b>		<b>3</b>		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	-	
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration^	4	IDS102 or Proficiency	
BUS124	Business Analysis with Algebra	4	-	
BUS 221	Microeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3	-	
ITD122	Computer Applications for Professionals ^	3	ITD100 or passing score on the computer entrance test	
ECA253	Data Modeling and Database Design^	3	IDS101 or Proficiency and MTH101 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites	
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71/72</b>		

^ Based upon SSC placement score.

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC22

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

+++ Course should be chosen following consultation with academic advisor.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ACCOUNTING TECHNOLOGY - COMPUTER INFORMATION MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
BUS124	Business Analysis with Algebra	4	-
BUS121	Business Administration	4	IDS102 or Proficiency
ITD122	Computer Applications for Professionals ++ <sup>^</sup>	3	ITD 100 or Proficiency
ACC130	Business Law & Ethics	<u>3</u>	
		17	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC127	Quantitative Business Statistics	4	BUS124
COM121	Effective Speaking	3	
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites
BUS221	Microeconomics <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		17	
<u>Third Semester</u>			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC228	Business Taxation	4	ACC132
EAC253	Data Modeling and Database Design	3	IDS101 or Proficiency and MTH101 or Proficiency
	Technical Elective I**	<u>3/4</u>	
		18/19	
<u>Fourth Semester</u>			
ECA148	MS Excel: Analyzing Data to Make Better Decisions	3	ITD122 and ECA253
ECA152	MS Access: Developing Robust Applications	3	ITD122 and ECA253 and MTH222
ACC225	Auditing+++		ACC221
or	or	4	
ACC237	Fraud Examination+++		ACC133
ACC229	Computerized Accounting Applications	3	ACC132 or ENT123 or ACC121 and ITD122
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency
	Technical Elective II***	<u>3</u>	-
		19	
<b>TOTAL CREDITS</b>		<b>71/72</b>	

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

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

\*\* Select from: ACC227, ACC124, ACC234, ACC235, or BTD223.

\*\*\* Select from: ECA139 or ECA228.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

+++ Course should be chosen following consultation with academic advisor.





# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2001

## ACCOUNTING - CORPORATE MAJOR

Effective Summer 2012

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	4	ACC221	
ACC223	Cost Accounting	4	ACC127 and ACC133	
ACC225 or ACC 237	Auditing+++ or Fraud Examination+++	4	ACC222(co-requisite)  ACC133	
ACC228	Business Taxation	4	ACC132	
<b>TOTAL</b>		<b>28</b>		
TECHNICAL ELECTIVES (must select 2 courses)**		Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC226	Advanced Accounting	4	ACC222(co-requisite)	
ACC227	Payroll Accounting	3	ACC132	
ACC229	Computerized Accounting Applications	3	ACC132or ACC121 or ENT123 and ITD122	
ACC234	Advanced Payroll	3	ACC227	
ACC235	Forensic Accounting	3	-	
ACC238	Financial Statement Analysis	4	ACC133	
BTD223	Business Co-op	3	Department Chair Approval	
ACC240	CMA Exam Part 1 Review Course	4	ACC223(co-requisite)	
ACC241	CMA Exam Part 2 Review Course	4	ACC223(co-requisite)	
<b>TOTAL</b>		<b>6-8</b>		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	-	
ITD122	Computer Applications for Professionals^++	3	ITD100 or Proficiency	
BUS121	Business Administration	4	IDS102 or Proficiency	
BUS124	Business Analysis with Algebra	4	-	
ACC127	Quantitative Business Statistics	4	BUS124	
BUS 221	Microeconomics	3	IDS102 or Proficiency	
COM121	Effective Speaking	3	-	
ENG124	College Composition	3	ENG105 or Proficiency	
MTH125/MTH222	College Algebra/Statistics	4/3	MTH123 or Proficiency	
FIN220	Business Finance	4	ACC133	
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites	
<b>TOTAL</b>		<b>37/38</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71/74</b>		

^ Based upon SSC placement score.

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

+++ Course should be chosen following consultation with academic advisor.

1. **ACADEMIC ADVISING** - Each student should make an appointment to see an academic advisor every semester before registering for classes. Please have your registration form completed, including the courses you wish to take, for this appointment.
2. **COURSE SEQUENCE** - Business students are expected to have completed all required college assessment tests and any recommended developmental courses prior to registering for technical courses. Proper course sequencing is critical to success in learning. The semester-by-semester listing below gives the normal course scheduling order for full-time associate degree students who plan to finish in two years. Some courses can be scheduled in other semesters depending upon course availability and an academic advisor's recommendation. Every course may not be offered every semester. Please plan accordingly.
3. **TECHNICAL ELECTIVES** - Some programs require technical electives. Consult with your academic advisor to determine course availability.

**ACCOUNTING - CORPORATE MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
BUS124	Business Analysis with Algebra	4	-
BUS121	Business Administration	4	IDS102 or Proficiency
ACC130	Business Law & Ethics	3	-
ITD122	Computer Applications for Professionals++	<u>3</u>	ITD100 or Proficiency
		17	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC127	Quantitative Business Statistics	4	BUS124
COM121	Effective Speaking	3	-
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites
BUS221	Microeconomics	<u>3</u>	IDS102 or Proficiency
		17	
<u>Third Semester</u>			
ACC121	Intermediate I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC228	Business Taxation	4	ACC132
MTH125/MTH222	College Algebra/Statistics	4/3	MTH123 or Proficiency
	Technical Elective**	<u>3/4</u>	
		18/20	
<u>Fourth Semester</u>			
ACC223	Cost Accounting	4	ACC127 and ACC133
ACC222	Intermediate Accounting II	4	ACC221
ACC225	Auditing+++		ACC222 (co requisite)
or	or	4	
ACC237	Fraud Examination+++		ACC133
FIN220	Business Finance	4	ACC133
	Technical Elective**	<u>3/4</u>	
		19/20	
<b>TOTAL CREDITS</b>		<b>71/74</b>	

<sup>^</sup> Based upon SSC placement score.<sup>\*</sup> Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225<sup>\*\*</sup> Select from: ACC226, ACC227, ACC229, ACC234, ACC235, ACC238, ACC240, ACC241 or BTD223.<sup>+</sup> Student may elect to take ACC121 Principles of Accounting as an introduction to accounting prior to taking this course.<sup>++</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.<sup>+++</sup> Course should be chosen following consultation with academic advisor.

Reviewed 3/2012

Revised 2/2012



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2002

## ACCOUNTING - CPA MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC124	Individual Taxation	4	BUS124	
ACC132	Financial Accounting+	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC221	Intermediate Accounting I	4	ACC132	
ACC222	Intermediate Accounting II	4	ACC221	
ACC223	Cost Accounting	4	ACC127 and ACC133	
ACC225	Auditing	4	ACC222(co requisite)	
<b>TOTAL</b>		<b>28</b>		
TECHNICAL ELECTIVES (must select 2 courses)**		Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC226	Advanced Accounting	4	ACC222(co requisite)	
ACC228	Business Taxation	4	ACC132	
ACC232	Governmental & Not-for-Profit Accounting	4	ACC132	
ACC239	Estate & Income Tax Planning	4	ACC124	
BTD223	Business Co-op	3	Department Chair Approval	
<b>TOTAL</b>		<b>7/8</b>		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	-	
ITD122	Computer Applications for Professionals^++	3	ITD100 or Proficiency	
MTH125/MTH222	College Algebra/Statistics^	4/3	MTH123 or Proficiency	
BUS124	Business Analysis with Algebra	4	-	
ACC127	Quantitative Business Statistics	4	BUS124	
BUS 221	Microeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3	-	
ENG124	College Composition^	3	ENG105 or Proficiency	
BUS121	Business Administration^	4	IDS102 or Proficiency	
FIN220	Business Finance	4	ACC133	
	Arts and Humanities Elective	3	Some courses may require pre- or co-requisites	
<b>TOTAL</b>		<b>37/38</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72/74</b>		

^ Based upon SSC placement score.

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ACCOUNTING - CPA MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
BUS124	Business Analysis with Algebra	4	-
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites
ACC130	Business Law & Ethics	<u>3</u>	
		17	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC127	Quantitative Business Statistics	4	BUS124
ITD122	Computer Applications for Professionals++ <sup>^</sup>	3	ITD100 or Proficiency
COM121	Effective Speaking	3	-
BUS221	Microeconomics <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		17	
<u>Third Semester</u>			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC124	Individual Taxation	4	BUS124
MTH125/MTH222	College Algebra/Statistics	3 / 4	MTH123 or Proficiency
	Technical Elective**	<u>3 / 4</u>	-
		18/20	
<u>Fourth Semester</u>			
ACC222	Intermediate Accounting II	4	ACC221
ACC223	Cost Accounting	4	ACC127 and ACC133
ACC225	Auditing	4	ACC222 (co requisite)
FIN220	Business Finance	4	ACC133
	Technical Elective**	<u>3 / 4</u>	
	-		
		19/20	
	<b>TOTAL CREDITS</b>	<b>72/74</b>	

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

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

\*\* Select from: ACC226, ACC228, ACC232, ACC239, or BTD223.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Reviewed 3/2012

Revised 2/2012





# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2011

## ACCOUNTING - FORENSIC ACCOUNTING MAJOR

Effective Summer 2012

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	ACC127 and ACC133	
ACC228	Business Taxation	4	ACC132	
ACC235	Forensic Accounting	3	-	
ACC237	Fraud Examination	4	ACC133	
ACC238	Financial Statement Analysis	4	ACC133	
CFS137	Computer Crime and Investigation	3	NET120 or ECA145	
<b>TOTAL</b>		<b>34</b>		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC236	Cyber Law & Ethics^	3	IDS102 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125/222	College Algebra/Statistics^	4/3	MTH123 or Proficiency	
BUS124	Business Analysis with Algebra	4		
ACC127	Quantitative Business Statistics	4	BUS124	
BUS 221	Microeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
CFS136	Principles of Information Security	3		
NET120	PC Upgrading and Maintenance	3		
	Arts and Humanities Elective	3	Some courses may require pre- or co-requisites	
<b>TOTAL</b>		<b>35/36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>69/70</b>		

^Based upon SSC placement score.

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC2

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Reviewed 3/2012

Revised 2/2012

STUDENT ADVISING NOTES

2011

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ACCOUNTING - FORENSIC ACCOUNTING MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
BUS124	Business Analysis with Algebra	4	-
BUS221	Microeconomics	3	IDS102 or Proficiency
COM121	Effective Speaking	3	-
CFS136	Principles of Information Security	<u>3</u>	
		16	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC235	Forensic Accounting	3	-
ITD122	Computer Applications for Professionals++	3	ITD100 or Proficiency
NET120	PC Upgrading and Maintenance	3	-
ACC127	Quantitative Business Statistics	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC228	Business Taxation	4	ACC132
MTH125/222	College Algebra/Statistics	4/3	MTH123 or Proficiency
ACC236	Cyber Law & Ethics	<u>3</u>	IDS102 or Proficiency
		18/19	
<u>Fourth Semester</u>			
ACC237	Fraud Examination	4	ACC133
ACC223	Cost Accounting	4	ACC127 and ACC133
ACC238	Financial Statement Analysis	4	ACC133
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites
CFS137	Computer Crime and Investigation	<u>3</u>	NET120
		18	
<b>TOTAL CREDITS</b>		<b>69/70</b>	

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

<sup>\*</sup> Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

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

<sup>++</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Reviewed 3/2012  
Revised 2/2012



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2009

## ACCOUNTING - HEALTH ADMINISTRATION MAJOR

Effective Summer 2012

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	ACC127 and ACC133	
ACC228	Business Taxation	4	ACC132	
ACC229	Computerized Accounting Applications	3	ACC132 or ENT123 or ACC121 and ITD122	
ACC232	Governmental & Not-for-Profit Accounting	4	ACC132	
ACC237	Fraud Examination	4	ACC133	
MAT231	Reimbursement for Health Care Services++(Fall only)	3	-	
<b>TOTAL</b>		<b>34</b>		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS124	Business Analysis with Algebra	4	-	
ACC127	Quantitative Business Statistics	4	BUS124	
BIO125	Medical Terminology++(Fall only)	3	-	
HIT230	Health Care Delivery in the U.S.++(Spring only)	2	-	
HIT 123	Healthcare Legal and Ethical Issues (Spring Only)++	2	HIT230	
COM121	Effective Speaking	3	-	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition ^	3	ENG105 or Proficiency	
FIN220	Business Finance	4	ACC127 and ACC133	
MTH222	Statistics^	3	MTH123 or Proficiency	
	Arts and Humanities Elective**	3	Some courses may require pre- or co-requisites	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^ Based upon SSC placement score.

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

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

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ACCOUNTING SERVICES FOR HEALTH ADMINISTRATION MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
BUS124	Business Analysis with Algebra	4	-
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
BIO125	Medical Terminology++(Fall Only)	3	-
COM121	Effective Speaking	<u>3</u>	IDS102 or Proficiency
		16	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC127	Quantitative Business Statistics	4	BUS124
HIT230	Health Care Delivery In the U.S.++	2	-
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
	Arts and Humanities Elective*	<u>3</u>	Some courses may require pre- or co-requisites
		16	
<u>Third Semester</u>			
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
ACC232	Governmental & Not-For-Profit Accounting	4	ACC132
ACC229	Computerized Accounting Applications	3	ACC132 or ENT132 or ACC121 And ITD122
MAT231	Reimbursement for Health Care Services++(Fall Only)	<u>3</u>	-
		18	
<u>Fourth Semester</u>			
ACC237	Fraud Examination	4	ACC133
ACC223	Cost Accounting	4	ACC127 and ACC133
FIN220	Business Finance	4	ACC133
ACC228	Business Taxation	4	ACC132
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency
HIT123	Healthcare Legal and Ethical Issues++ (Spring Only)	<u>2</u>	MAT231
		21	
<b>TOTAL CREDITS</b>		<b>71</b>	

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

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

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

<sup>\*</sup> Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

Reviewed 3/2012

Revised 2/2012





# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2007

## ACCOUNTING - TAX MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC124	Individual Taxation	4	BUS124	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC221	Intermediate Accounting I	4	ACC132	
ACC222	Intermediate Accounting II	4	ACC221	
ACC223	Cost Accounting	4	ACC127 and ACC133	
ACC225 or ACC 237	Auditing +++ or Fraud Examination+++	4	ACC222(co requisite)  ACC133	
ACC228	Business Taxation	4	ACC132	
<b>TOTAL</b>		<b>32</b>		
TECHNICAL ELECTIVES (must select 1 course)		Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC227	Payroll Accounting	3	ACC132	
ACC239	Estate & Income Tax Planning	4	ACC124	
BTD223	Business Co-op	3	Department Chair Approval	
<b>TOTAL</b>		<b>3/4</b>		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	-	
ITD 122	Computer Applications for Professionals <sup>^++</sup>	3	ITD100 or Proficiency	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency	
BUS124	Business Analysis with Algebra	4	-	
ACC127	Quantitative Business Statistics	4	BUS124	
BUS 221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency	
COM121	Effective Speaking	3	-	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
MTH125/MTH222	College Algebra/Statistics <sup>^</sup>	3/4	MTH123 or Proficiency	
FIN220	Business Finance	4	ACC133	
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites	
<b>TOTAL</b>		<b>37/38</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72/74</b>		

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

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

+++ Course should be chosen following consultation with academic advisor.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ACCOUNTING - TAX MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
BUS124	Business Analysis with Algebra	4	-
BUS121	Business Administration	4	IDS102 or Proficiency
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites
ACC130	Business Law & Ethics	<u>3</u>	-
		17	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC127	Quantitative Business Statistics	4	BUS124
ITD122	Computer Applications for Professionals++	3	ITD100 or Proficiency
BUS221	Microeconomics	3	IDS102 or Proficiency
ACC124	Individual Taxation	<u>4</u>	BUS124
		18	
<u>Third Semester</u>			
COM121	Effective Speaking	3	-
ACC221	Intermediate Accounting I	4	ACC132
ACC133	Managerial Accounting	4	ACC132
MTH125/MTH222	College Algebra/Statistics	3 / 4	MTH123 or Proficiency
ACC228	Business Taxation	<u>4</u>	ACC132
		18/19	
<u>Fourth Semester</u>			
ACC222	Intermediate Accounting II	4	ACC221
ACC223	Cost Accounting	4	ACC127 and ACC133
ACC225	Auditing+++		ACC222 (co requisite)
or	or	4	
ACC237	Fraud Examination+++		ACC133
FIN220	Business Finance	4	ACC133
	Technical Elective**	<u>3/4</u>	
		19/20	
<b>TOTAL CREDITS</b>		<b>72/74</b>	

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

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

\*\* Select from: ACC227, ACC239, or BTD223.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

+++ Course should be chosen following consultation with academic advisor.

Reviewed 3/2012

Revised 2/2012



# BUSINESS AND ENTREPRENEURIAL STUDIES

## One Year Certificate

2010

### BANKING ASSOCIATE CERTIFICATE

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC132	Financial Accounting+	4	BUS124	
FIN123	Fundamentals of Financial Services^	4	IDS102 or Proficiency and BUS124 (co requisite)	
FIN221	Investment & Securities	4	ACC132	
FIN226	Current Financial Service Topics I	3	FIN123, FIN221(co requisite)	
FIN227	Money & Banking	3	BUS124	
MKT221	Sales	3	MKT121 or ENT121	
TOTAL		21		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121	Effective Speaking	3	-	
ITD122	Computer Applications for Professionals^++	3	ITD100 proficiency	
BUS124	Business Analysis with Algebra	4	-	
ENG124	College Composition^	3	ENG105 or Proficiency	
TOTAL		13		
TOTAL CREDIT HOURS		34		

^ Based upon SSC placement score.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BANKING ASSOCIATE CERTIFICATE**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BUS124	Business Analysis with Algebra	4	-
COM121	Effective Speaking	<u>3</u>	-
		7	
<u>Second Semester</u>			
ENG124	College Composition^	3	ENG105 or Proficiency
ITD122	Computer Applications for Professionals++ ^	3	ITD100 or proficiency
ACC132	Financial Accounting+	4	BUS124
FIN123	Fundamentals of Financial Services	<u>4</u>	IDS102 or Proficiency and BUS124 (co requisite)
		14	
<u>Third Semester</u>			
FIN226	Current Financial Service Topics I	3	FIN123, FIN221(co requisite)
MKT221	Sales	3	MKT121 or ENT121
FIN221	Investment & Securities	4	ACC132
FIN227	Money & Banking	<u>3</u>	BUS124
		13	
<b>TOTAL CREDITS</b>		<b>34</b>	

^ Based upon SSC placement score.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.





# BUSINESS AND ENTREPRENEURIAL STUDIES

## One Year Certificate

2004

### BOOKKEEPING CERTIFICATE

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC132	Financial Accounting+	4	BUS124	
ACC227	Payroll Accounting	3	ACC132	
ACC229	Computerized Accounting Applications	3	ACC132, ACC121 or ENT123, and ITD122	
ITD122	Computer Applications for Professionals^++	3	ITD100 or proficiency	
TOTAL		13		
TECHNICAL ELECTIVES (must select 1 course)**		Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC124	Individual Taxation	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC228	Business Taxation	4	ACC132	
TOTAL		4		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	4	IDS102 or Proficiency	
BUS124	Business Analysis with Algebra	4	-	
ACC130	Business Law & Ethics	3	-	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG230	Business Communication	3	ENG124	
TOTAL		17		
TOTAL CREDIT HOURS		34		

^ Based upon SSC placement score.

\*\* Select from: ACC124, ACC133, or ACC228.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

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

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BOOKKEEPING CERTIFICATE****Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BUS124	Business Analysis with Algebra	4	-
ACC130	Business Law & Ethics	<u>3</u>	-
		7	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
BUS121	Business Administration^	4	IDS102 or Proficiency
ITD122	Computer Applications for Professionals++^	3	ITD100 or Proficiency
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		14	
<u>Third Semester</u>			
	Technical Elective**	4	
ACC229	Computerized Accounting Applications	3	ACC132, ACC121, or ENT123 and ITD122
ACC227	Payroll Accounting	3	ACC132
ENG230	Business Communication	<u>3</u>	ENG124
		13	
<b>TOTAL CREDITS</b>		<b>34</b>	

^ Based upon SSC placement score.

\*\* Select from: ACC124, ACC133, or ACC228.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.



# BUSINESS AND ENTREPRENEURIAL STUDIES

## One year Certificate

2012

### COMPUTER-INTEGRATED ACCOUNTING CERTIFICATE

*Effective Summer 2012*

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	ACC132	
ACC229	Computerized Accounting Applications	3	ACC132 or ENT123 or ACC121 and ITD122	
AOT226	Spreadsheet – Microsoft Excel	3	ITD122	
AOT236	Database Applications – Microsoft Access	3	ITD122	
TOTAL		20		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals <sup>^++</sup>	3	ITD100 or proficiency	
BUS124	Business Analysis with Algebra	4	-	
ACC130	Business Law & Ethics	3	-	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
TOTAL		13		
TOTAL CREDIT HOURS		33		

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

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

<sup>++</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER-INTEGRATED ACCOUNTING CERTIFICATE****Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BUS124	Business Analysis with Algebra	4	-
ACC130	Business Law & Ethics	<u>3</u>	-
		7	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ITD122	Computer Applications for Professionals++ ^	3	ITD100 or proficiency
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		10	
<u>Second Semester</u>			
ACC133	Managerial Accounting	4	ACC132
ACC227	Payroll Accounting	3	ACC132
ACC229	Computerized Accounting Applications	3	ACC132 or ENT123 or ACC121 And ITD122
AOT226	Spreadsheet – Microsoft Excel	3	ITD122
AOT236	Database Applications – Microsoft Access	<u>3</u>	ITD122
		<u>16</u>	
	<b>TOTAL CREDITS</b>	<b>33</b>	

^ Based upon SSC placement score.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.



# BUSINESS AND ENTREPRENEURIAL STUDIES

## One Year Certificate

2005

### ENROLLED AGENT CERTIFICATE

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC 124	Individual Taxation	4	BUS124	
ACC 132	Financial Accounting	4	BUS124	
ACC 228	Business Taxation	4	ACC132	
ACC239	Estate & Income Tax Planning	4	ACC124	
FIN 222	Retirement Planning & Employee Benefits	4	ACC132	
TOTAL		20		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC 130	Business Law & Ethics	3	-	
ITD122	Computer Applications for Professionals ^	3	ITD100 or proficiency	
ENG 124	College Composition^	3	ENG105 or Proficiency	
BUS124	Business Analysis with Algebra	4	-	
TOTAL		13		
TOTAL CREDIT HOURS		33		

^ Based upon SSC placement score.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

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

Reviewed 3/2012  
Revised 2/2012



Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ENROLLED AGENT CERTIFICATE**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BUS124	Business Analysis with Algebra	4	-
ACC130	Business Law & Ethics	<u>3</u>	-
		7	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC124	Individual Taxation	4	BUS124
ITD122	Computer Applications for Professionals++ ^	3	ITD100 or proficiency
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		14	
<u>Third Semester</u>			
ACC228	Business Taxation	4	ACC132
ACC239	Estate & Income Tax Planning	4	ACC124
FIN222	Retirement Planning & Employee Benefits	<u>4</u>	ACC132
		12	
<b>TOTAL CREDITS</b>		<b>33</b>	

^ Based upon SSC placement score.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.



# BUSINESS AND ENTREPRENEURIAL STUDIES

## One Year Certificate

### FUNDAMENTAL PAYROLL CERTIFICATE

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC 124	Individual Taxation	4	BUS124	
ACC 132	Financial Accounting+	4	BUS124	
ACC 227	Payroll Accounting	3	ACC132 (co requisite)	
ACC 229	Computerized Accounting Applications	3	ACC132, ITD122	
ACC 234	Advanced Payroll	3	ACC227	
BUS 124	Business Analysis with Algebra	4		
TOTAL		21		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC 130	Business Law & Ethics	3		
ITD122	Computer Applications for Professionals <sup>^++</sup>	3	ITD100 or proficiency	
ENG 124	College Composition	3	ENG105 or Proficiency	
ENG 230	Business Communication	3	ENG124	
TOTAL		12		
TOTAL CREDIT HOURS		33		

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

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

<sup>++</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

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

Reviewed 3/2012  
Revised 2/2012

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

## **FUNDAMENTAL PAYROLL CERTIFICATE**

**Effective Spring 2012**

		Credit Hours	Pre- and Co-requisites
<u>First Semester</u>			
BUS124	Business Analysis with Algebra	4	-
ACC130	Business Law & Ethics	<u>3</u>	-
		7	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC227	Payroll Accounting	3	ACC132 (co requisite)
ITD122	Computer Applications for Professionals++^	3	ITD100 or proficiency
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		13	
<u>Third Semester</u>			
ACC234	Advanced Payroll	3	ACC227
ACC229	Computerized Accounting Applications	3	ACC132, ACC121 or ENT123 And ITD122
ENG230	Business Communication	3	ENG124
ACC124	Individual Taxation	<u>4</u>	BUS124
		13	
<b>TOTAL CREDITS</b>		<b>33</b>	

^ Based upon SSC placement score.

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Reviewed 3/2012  
Revised 2/2012



**AUTOMOTIVE AND TRANSPORTATION DEPARTMENT  
ASSOCIATE OF APPLIED SCIENCE**

**2250**

**AUTOMOTIVE TECHNOLOGY**

EFFECTIVE SUMMER 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT 121	Automotive Technical Skills	2	None	
AUT 122	Automotive Systems and Engine Technology	4	AUT 121	
AUT 123	Engine Diagnosis and Major Service	4	AUT 121	
AUT 124	Vehicle Chassis Systems	4	AUT 121	
AUT 125	Automotive Electrical and Accessory Systems	4	AUT 121	
AUT 126	Automotive HVAC Systems	2	AUT 121	
AUT 221	Fuel and Emissions Management Systems	3	AUT 125	
AUT 222	Engine System Performance Diagnosis	3	AUT 125	
AUT 223	Advanced Automotive Electronics	3	AUT 125	
AUT 225	Automotive Drivetrain I	3	AUT 121	
AUT 226	Automotive Drivetrain II	3	AUT 121	
AUT 227	Computerized Vehicle Control	3	AUT 125	
AUT 233	Automotive Diagnostic Applications	2	AUT 223	
AUT 427	Alternative Fuels and Advanced Automotive Technologies	2	AUT 223	
<b>TOTAL</b>		<b>42</b>		
PROGRAM ELECTIVES (2 credit hour minimum)		Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT 230	Technical Project	2	None	
BTD 222	Business Co-op	2	None	
Toyota T-TEN, Honda PACT, ACDelco, GM STC, and Caterpillar Lift Truck courses can be taken in place of the electives listed above. See the attached elective sheets for course listings.				
<b>TOTAL</b>		<b>2</b>		
NON-TECH Course Numbers	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENG 124	College Composition ^	3	ENG 105 or Proficiency	
BUS 124	Business Analysis With Algebra	4		
BUS 121	Business Administration ^	4	IDS 102 or Proficiency	
ACC 121	Principles of Accounting I	4		
BUS 221	Microeconomics ^	3	IDS 102 or Proficiency	
ITD 122	Computer Applications for Professionals^	3	ITD 100 or Proficiency	
MTH 222	Statistics^	3	MTH 123 or Proficiency	
PHL 122	Ethics	3		
<b>TOTAL</b>		<b>27</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^ Based upon SSC placement score

\*\* Select from AUT 230, BTD 222, or see the attached elective sheets for Toyota T-TEN, Honda PACT, ACDelco, GM STC, or Caterpillar Lift Truck electives.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**AUTOMOTIVE TECHNOLOGY**  
EFFECTIVE SUMMER 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
AUT 121	Automotive Service Skills	2	-
AUT 122	Automotive Systems and Engine Applications	4	AUT 121
AUT 123	Engine Diagnosis and Major Service	4	AUT 121
ENG 124	College Composition^	3	ENG 105 or Proficiency
BUS 124	Business Analysis With Algebra	<u>4</u>	-
		17	
<u>Second Semester</u>			
AUT 124	Vehicle Chassis Systems	4	AUT 121
AUT 125	Automotive Electrical and Accessory Systems	4	AUT 121
AUT 126	Automotive HVAC Systems	2	AUT 121
BUS 121	Business Administration ^	4	IDS 102 or Proficiency
ACC 121	Principles of Accounting I	<u>4</u>	-
		18	
<u>Third Semester</u>			
AUT 221	Fuel and Emissions Management Systems	3	AUT 125
AUT 227	Computerized Vehicle Control	3	AUT 125
AUT 223	Advanced Automotive Electronics	3	AUT 125
AUT 222	Engine Systems Performance Diagnosis	3	AUT 125
BUS 221	Microeconomics ^	3	IDS 102 or Proficiency
ITD 122	Computer Applications for Professionals^	<u>3</u>	ITD 100 or Proficiency
		18	
<u>Fourth Semester</u>			
AUT 225	Automotive Drivetrain I	3	AUT 121
AUT 226	Automotive Drivetrain II	3	AUT 121
AUT 233	Automotive Diagnostics Applications	2	AUT 223
AUT 427	Alternative Fuels & Advanced Automotive Systems	2	AUT 223
MTH 222	Statistics ^	3	MTH 123 or Proficiency
PHL 122	Ethics	3	-
	Program Elective**	<u>2</u>	
		18	
<b>TOTAL CREDITS</b>		<b>71</b>	

^ Based upon SSC placement score

\*\* Select from AUT 230, BTD 222, or see the attached elective sheets for Toyota T-TEN, Honda PACT, ACDelco, GM STC, or Caterpillar Lift Truck electives.





# AUTOMOTIVE AND TRANSPORTATION TECHNOLOGIES ASSOCIATE OF APPLIED SCIENCE

2255

## GENERAL MOTORS ASEP *EFFECTIVE SUMMER 2012*

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
AUT 121	Automotive Technical Skills	2		
AUT 122	Automotive Systems and Engine Technology	4	AUT 121	
AUT 123	Engine Diagnosis and Major Service	4	AUT 121	
AUT 124	Vehicle Chassis Systems	4	AUT 121	
AUT 125	Automotive Electrical and Accessory Systems	4	AUT 121	
AUT 126	Automotive HVAC Systems	2	AUT 121	
AUT 221	Fuel and Emissions Management Systems	3	AUT 125	
AUT 222	Engine System Performance Diagnosis	3	AUT 125	
AUT 223	Advanced Automotive Electronics	3	AUT 125	
AUT 225	Automotive Drivetrain I	3	AUT 121	
AUT 226	Automotive Drivetrain II	3	AUT 121	
AUT 227	Computerized Vehicle Control	3	AUT 125	
BTD 222	Business Co-op (2 CR-HR) (3 semesters)	6		
<b>TOTAL</b>		<b>44</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ENG 124	College Composition ^	3	ENG 105 or Proficiency	
BUS 124	Business Analysis with Algebra	4		
BUS 121	Business Administration ^	4	IDS 102 or Proficiency	
ACC 121	Principles of Accounting I	4		
BUS 221	Microeconomics^	3	IDS 102 or Proficiency	
ITD 122	Computer Applications for Professionals^	3	ITD 100 or Proficiency	
MTH 222	Statistics^	3	MTH 123 or Proficiency	
PHL 122	Ethics	3		
<b>TOTAL</b>		<b>27</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^ Based upon SSC placement score

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**GENERAL MOTORS ASEP**  
**EFFECTIVE SUMMER 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
AUT 121	Automotive Technical Skills	2	
AUT 122	Automotive Systems and Engine Technology	4	AUT 121
AUT 124	Vehicle Chassis Systems	4	AUT 121
ENG 124	College Composition^	3	ENG 105 or Proficiency
BUS 124	Business Analysis with Algebra	<u>4</u>	
		17	
<u>Second Semester</u>			
AUT 123	Engine Diagnosis and Major Service	4	AUT 121
AUT 125	Automotive Electrical and Accessory Systems	4	AUT 121
BUS 121	Business Administration ^	4	IDS 102 or Proficiency
ACC 121	Principles of Accounting I	<u>4</u>	
		16	
<u>Third Semester</u>			
AUT 126	Automotive HVAC Systems	2	AUT 121
BTD 222	Business Co-op	<u>2</u>	-
		4	
<u>Fourth Semester</u>			
AUT 221	Fuel and Emissions Management Systems	3	AUT 125
AUT 225	Automotive Drivetrain I	3	AUT 121
AUT 226	Automotive Drivetrain II	3	AUT 121
BUS 221	Microeconomics^	3	IDS 102 or Proficiency
ITD 122	Computer Applications for Professionals^	3	ITD 100 or Proficiency
BTD 222	Business Co-op	<u>2</u>	
		17	
<u>Fifth Semester</u>			
AUT 222	Engine Systems Performance Diagnosis	3	AUT 125
AUT 223	Advanced Automotive Electronics	3	AUT 125
AUT 227	Computerized Vehicle Control	3	AUT 125
MTH 222	Statistics^	3	MTH 123 or Proficiency
PHL 122	Ethics	3	
BTD 222	Business Co-op	<u>2</u>	
		17	
<b>TOTAL CREDITS</b>		<b>71</b>	

^ Based upon SSC placement score



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2055

## BUSINESS MANAGEMENT

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration^	4	IDS102 or proficiency	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 and MGT121	
MGT224	Human Resource Management	3	MGT121	
MGT227	Operations Management	4	MGT121 and ACC127	
MKT121	Principles of Marketing	3	BUS121	
	(2 Technical Electives from list below)	6, 7		
	<b>Technical Electives:**</b>			
FIN220	Business Finance	4	ACC127 and ACC133	
MGT222	Small Business Management	3	ACC133 and MGT121	
MGT232	International Business	3	BUS121	
MKT226	Supply Chain Management	3	MKT121	
<b>TOTAL</b>		<b>34/35</b>		
NON-TECH. Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics^	3	IDS102 or proficiency	
BUS222	Macroeconomics^	3	IDS102 or proficiency	
ENG124	College Composition^	3	ENG105 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124	
ITD122	Computer Applications for Professionals+	3	ITD100 or passing score on the computer entrance test	
MTH125	College Algebra^	4	MTH123 or proficiency	
	Arts and Humanities Elective*	3	None/ENG124	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71/72</b>		

^ Based upon SSC placement score

\*\* Technical Electives – FIN220, MGT222, MGT232, MKT226

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS MANAGEMENT**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals+	3	ITD100 or passing score on the computer entrance test
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
MTH125	College Algebra <sup>^</sup>	<u>4</u>	MTH123 or proficiency
		18	
<u>Second Semester</u>			
MGT121	Principles of Management	3	BUS121
MKT121	Principles of Marketing	3	BUS121
ACC127	Quantitative Business Statistics	4	BUS124
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT221	Supervision	3	MGT121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
MGT227	Operations Management	4	MGT121 and ACC127
ACC133	Managerial Accounting	4	ACC132
	Technical Elective**	<u>3</u>	None
		17	
<u>Fourth Semester</u>			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency
MGT223	Business Decision Making	4	ACC133 and MGT121
	Arts and Humanities Elective*	3	None/ENG124
ACC130	Business Law & Ethics	3	None
	Technical Elective**	<u>3, 4</u>	
		19/20	
<b>TOTAL CREDITS</b>		<b>71/72</b>	

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

\*\* Technical Electives – FIN220, MGT222, MGT232, MKT226

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Revised 2/2012



# BUSINESS AND ENTREPRENEURIAL STUDIES

## ASSOCIATE OF ARTS

2069

### Business Administration

Effective Summer 2012

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>CORE CLASSES (required)</b>				
BUS121	Business Administration^	4	IDS102 or Proficiency	
FIN220	Business Finance	4	MTH222 and ACC132	
MKT121	Principles of Marketing	3	BUS121	
MGT121	Principles of Management	3	BUS121	
<b>ELECTIVES (12-16 credits)</b>				
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
MGT221	Supervision	3	MGT121	
MGT232	International Business	3	BUS121	
ACC130	Business Law & Ethics	3		
MGT227	Operations Management	4	MGT121 and MTH222	
MGT222	Small Business Management	3	ACC133 and MGT121	
MKT226	Supply Chain Management	3	MKT121	
MGT224	Human Resource Management	3	MGT121	
ACC238	Financial Statement Analysis	4	ACC133	
<b>TOTAL</b>		<b>26/30</b>		
<b>COMPUTER APPLICATIONS (3 credit hours minimum)</b>				
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency	
<b>ENGLISH COMPOSITION (6 credit hours minimum)</b>				
ENG124	College Composition ( <b>required</b> )^	3	ENG105 or proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG231	College Composition II	3	ENG124	
<b>SOCIAL &amp; BEHAVIORAL SCIENCES (9 credit hours minimum)</b>				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or proficiency	
SOC121	Sociology^	3	IDS102 or proficiency	
SOC225	Cultural Diversity ( <b>required</b> )	3		
BUS122	Basic Economics^	3	IDS102 or proficiency	
BUS221	Microeconomics ( <b>required</b> )^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
<b>ARTS &amp; HUMANITIES (12 credit hours minimum)</b>				
COM121	Effective Speaking ( <b>required</b> )	3		
PHL122	Ethics	3		
ENG233	British Literature I	3	ENG124	
ENG234	British Literature II	3	ENG124	
HIS121	U.S. History I	3		
HIS122	U.S. History II	3		



<b>SCIENCES &amp; MATHEMATICS: 3-4 semester credit hours in Math minimum and 6 semester credit hours in Natural and Physical Sciences minimum (1 lab course required)</b>				
	<u>Natural and Physical Sciences</u>			
BIO101	Intro. to Anatomy & Physiology+^	3	IDS102 or proficiency	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment	4		
BIO127	Human Biology (lab course)	4		
BIO141	General Biology I (lab course)	4		
BIO142	General Biology II (lab course)	4		
CHM101	Intro. to Chemistry+^	4	MTH123 or proficiency	
PHY101	Principles of Physics (lab course)^	4	MTH123 or proficiency and IDS102 or proficiency	
	<u>Mathematics</u>			
MTH125	College Algebra^	4	MTH123 or proficiency	
MTH126	Precalculus	4	MTH 125 or proficiency	
MTH222	Statistics	3	MTH123 or proficiency	
<b>TOTAL</b>		<b>39/42</b>		
<b>TOTAL CREDIT HOURS</b>		<b>65/72</b>		

^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.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS ADMINISTRATION****Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre-requisites
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or proficiency
COM121	Effective Speaking	3	
	<i>Sciences Elective</i> *	3/4	Check for pre-requisite
	<i>Mathematics Elective</i> **	<u>3</u>	Check for pre-requisite
	<i>Arts and Humanities Elective</i> ***	3	Check for pre-requisite
		18/19	
<u>Second Semester</u>			
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency
	<i>Arts and Humanities Elective</i> ***	3	Check for pre-requisite
	<i>English Composition and Literature Elective</i> *****	3	Check for pre-requisite
	<i>Sciences Elective</i> *	<u>3/4</u>	Check for pre-requisite
		16/17	
<u>Third Semester</u>			
SOC225	Cultural Diversity	3	
	<i>Arts and Humanities Elective</i> ***	3	Check for pre-requisite
	<i>Business Elective</i> *****	3/4	Check for pre-requisite
	<i>Social &amp; Behavioral Sciences Elective</i> ***	<u>3</u>	
		12/13	
<u>Fourth Semester</u>			
FIN220	Business Finance	4	MTH222 and ACC132
MKT121	Principles of Marketing	3	BUS121
MGT121	Principles of Management	3	BUS121
	<i>Business Elective</i> *****	3/4	Check for pre-requisite
	<i>Business Elective</i> *****	3/4	Check for pre-requisite
	<i>Business Elective</i> *****	<u>3/4</u>	Check for pre-requisite
		19/22	
<b>TOTAL CREDITS</b>		<b>65/72</b>	

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

+ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

\*Select from BIO101, BIO125, BIO126, BIO127, BIO141, BIO142, CHM101, PHY101

\*\* Select from MTH125, MTH126, MTH222

\*\*\* Select from PHL122, ENG233, ENG234, HIS121, HIS122, PSC121, PSY121, SOC121, BUS122, BUS222

\*\*\*\* Select from ACC132, ACC133, MGT221, MGT232, ACC130, MGT227, MGT222, MKT226, MGT224, ACC238

\*\*\*\*\* Select from ENG221, ENG230, ENG231



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2061

## BUSINESS MANAGEMENT - FINANCE MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
FIN227	Money & Banking	3	BUS124	
FIN221	Investments & Securities	4	ACC132	
FIN220	Business Finance	4	ACC127 and ACC133	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 and MGT121	
MGT224	Human Resource Management	3	MGT121	
MKT121	Principles of Marketing	3	BUS121	
<b>TOTAL</b>		<b>35</b>		
NON-TECH Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	ENG124	
ITD122	Computer Applications for Professionals+ <sup>^</sup>	3	ITD100 or Proficiency	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
	Arts and Humanities Elective	3	None/ENG124	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

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

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/ 2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS MANAGEMENT – FINANCE**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals+ <sup>^</sup>	3	ITD100 or Proficiency
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
MTH125	College Algebra <sup>^</sup>	<u>4</u>	MTH123 or proficiency
		18	
<u>Second Semester</u>			
MGT121	Principles of Management	3	BUS121
MKT121	Principles of Marketing	3	BUS121
ACC127	Quantitative Business Statistics	4	BUS124
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT221	Supervision	3	MGT121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
FIN227	Money & Banking	3	BUS124
ACC133	Managerial Accounting	4	ACC132
FIN221	Investments & Securities	<u>4</u>	ACC132
		17	
<u>Fourth Semester</u>			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency
MGT223	Business Decision Making	4	ACC133 and MGT121
	Arts and Humanities Elective	3	None/ENG124
ACC130	Business Law & Ethics	3	None
FIN220	Business Finance	<u>4</u>	ACC127 and ACC133
		20	
<b>TOTAL CREDITS</b>		<b>72</b>	

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

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2060

## BUSINESS MANAGEMENT - HEALTH SERVICES MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BIO101	Introduction To Anatomy & Physiology^	3	IDS102 or proficiency	
BIO125	Medical Terminology	3	None	
BUS121	Business Administration^	4	IDS102 or proficiency	
HIT230	Health Care Delivery in the U.S.	2	None	
MAT231	Reimbursement for Health Care Services	3	None	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 and MGT121	
MGT224	Human Resource Management	3	MGT121	
MKT121	Principles of Marketing	3	BUS121	
<b>TOTAL</b>		<b>35</b>		
NON-TECH Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics^	3	IDS102 or proficiency	
BUS222	Macroeconomics^	3	IDS102 or proficiency	
ENG124	College Composition^	3	ENG105 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124	
ITD122	Computer Applications for Professionals^++	3	ITD100 or Proficiency	
MTH125	College Algebra^	4	MTH123 or proficiency	
	Arts and Humanities Elective	3	None/ENG124	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

^ Based upon SSC placement score

++Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

+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.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS MANAGEMENT – HEALTH SERVICES**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals <sup>++</sup> <sup>^</sup>	3	ITD100 or Proficiency
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
BIO125	Medical Terminology	<u>3</u>	None
		17	
<u>Second Semester</u>			
MGT121	Principles of Management	3	BUS121
MKT121	Principles of Marketing	3	BUS121
ACC127	Quantitative Business Statistics	4	BUS124
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT221	Supervision	3	MGT121
BUS221	Microeconomics	3	IDS102 or proficiency
BIO101	Introduction to Anatomy & Physiology <sup>^</sup>	3	None
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency
ACC133	Managerial Accounting	4	ACC132
HIT230	Health Care Delivery in the U.S.	<u>2</u>	None
		19	
<u>Fourth Semester</u>			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency
MGT223	Business Decision Making	4	ACC133 and MGT121
	Arts and Humanities	3	None/ENG124
ACC130	Business Law & Ethics	3	None
MAT231	Reimbursement for Health Care Services <sup>+</sup>	<u>3</u>	BIO101
		19	
<b>TOTAL CREDITS</b>		<b>72</b>	

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

<sup>++</sup>Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

<sup>+</sup>Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.





# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2062

## BUSINESS MANAGEMENT – HUMAN RESOURCES MAJOR

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 and MGT121	
MGT224	Human Resource Management***	3	MGT121	
MKT121	Principles of Marketing	3	BUS121	
MGT227	Operations Management	4	MGT121 and ACC127	
	Select two Business @ a Distance Courses**:			
HRM211S	Staffing the Organization	3	MGT224	
HRM212S	Compensation and Benefits	3	MGT224	
HRM213S	Employee Training & Development	3	MGT224	
	<b>TOTAL</b>	<b>34</b>		
NON-TECH. Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
ACC130	Business Law & Ethics	3	None	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
ITD122	Computer Applications for Professionals <sup>+</sup>	3	ITD100 or proficiency	
	Art and Humanities Elective*	3	None/ENG124	
	<b>TOTAL</b>	<b>37</b>		
	<b>TOTAL CREDIT HOURS</b>	<b>71</b>		

\*\*These Edison Community College (Piqua, Ohio) classes are completed online. Student must apply to Edison Community College to take these Business @ a Distance Program courses. HRM211S, HRM212S, HRM213S

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

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

\*\*\*Can substitute Business @ a Distance Edison Community College Course HRM110S for MGT224

+Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS MANAGEMENT - HUMAN RESOURCES**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals <sup>+</sup>	3	ITD100 or proficiency
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
	Arts and Humanities Elective*	<u>3</u>	None/ENG124
		17	
<u>Second Semester</u>			
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124
MGT121	Principles of Management	3	BUS121
MKT121	Principles of Marketing	3	BUS121
ACC127	Quantitative Business Statistics	4	BUS124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT224	Human Resource Management***	3	MGT121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
ACC130	Business Law & Ethics	3	-
ACC133	Managerial Accounting	4	ACC132
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency
	Human Resources Business @ a Distance course**	<u>3</u>	MGT224
		20	
<u>Fourth Semester</u>			
MGT221	Supervision	3	MGT121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or Proficiency
MGT223	Business Decision Making	4	ACC133 and MGT121
MGT227	Operations Management	4	ACC127 and MGT121
	Human Resources Business @ a Distance course**	<u>3</u>	MGT224
		17	
	TOTAL CREDITS	71	

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

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

\*\* Business @ a Distance Edison Community College Course: HRM211S, HRM212S, HRM213S

\*\*\* Can substitute Business @ a Distance Edison Community College Course HRM110S for MGT224

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2058

## BUSINESS MANAGEMENT - INT'L BUSINESS MAJOR

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
ACC134	International Law	3	ACC130	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
BUS223	International Economics	3	BUS221 and BUS222	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 and MGT121	
MGT224	Human Resource Management	3	MGT121	
MGT232	International Business	3	BUS121	
MKT121	Principles of Marketing	3	BUS121	
<b>TOTAL</b>		<b>33</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124	
ITD122	Computer Applications for Professionals <sup>+</sup>	3	ITD100 or Proficiency	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
	Arts and Humanities <sup>*</sup>	3	None/ENG124	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

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

<sup>+</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS MANAGEMENT - INTERNATIONAL BUSINESS**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals+	3	ITD100 or proficiency
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition^	3	ENG105 or proficiency
MTH125	College Algebra	<u>4</u>	MTH123 or proficiency
		18	
<u>Second Semester</u>			
MGT121	Principles of Management	3	BUS121
MKT121	Principles of Marketing	3	BUS121
ACC127	Quantitative Business Statistics	4	BUS124
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT221	Supervision	3	MGT121
BUS221	Microeconomics	3	IDS102 or proficiency
MGT232	International Business	3	BUS121
ACC133	Managerial Accounting	4	ACC132
ACC130	Business Law & Ethics	<u>3</u>	None
		16	
<u>Fourth Semester</u>			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics	3	IDS102 or proficiency
MGT223	Business Decision Making	4	ACC133 and MGT121
	Arts and Humanities	3	None/ENG124
BUS223	International Economics	3	BUS221 and BUS222
ACC134	International Law	<u>3</u>	ACC130
		19	
<b>TOTAL CREDITS</b>		<b>70</b>	

^ Based upon SSC placement score

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Revised 2/2012



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2067

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

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 and MGT121	
MGT224	Human Resource Management	3	MGT121	
MGT227	Operations Management	4	MGT121 and MTH222	
MKT121	Principles of Marketing	3	BUS121	
<b>TOTAL</b>		<b>38</b>		
NON-TECH. Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC223	Cost Accounting	4	ACC127 and ACC133	
ACC130	Business Law & Ethics	3	None	
COM121	Effective Speaking	3	None	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
ENG231	College Composition II	3	ENG124	
ITD122	Computer Applications for Professionals+ <sup>^</sup>	3	ITD100 or proficiency	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
MTH128	Basic Trigonometry	1	MTH125	
MTH222	Statistics <sup>^</sup>	3	MTH123 or proficiency	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or proficiency	
	Arts & Humanities Elective	3	None/ENG124	
<b>TOTAL</b>		<b>33</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

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

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241

### Additional Courses Needed for a BBA Degree:

PHL 122 Ethics 3 credit hours

MTH221 Concepts of Calculus 3 credit hours

Two Basic Science Courses (Transfer Module) 6 credit hours (min) - 3 cr. (min) must involve lab class

indicated by (\*) - BIO 101 or \*BIO126,

CHM 101 or \*CHM121,

PHY 101 or \*PHY121

Another 45 credit hours must be taken at Kent State University to obtain BBA degree

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS MANAGEMENT – KENT STATE UNIVERSITY-BBA DEGREE MAJOR****Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration^	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals+^	3	ITD100 or proficiency
MTH125	College Algebra^	4	MTH123 or proficiency
MTH128	Basic Trigonometry	1	MTH125
ENG124	College Composition^	3	ENG105 or proficiency
COM121	Effective Speaking	<u>3</u>	None
		18	
<u>Second Semester</u>			
MGT121	Principles Management	3	BUS121
MKT121	Principles of Marketing	3	BUS121
MTH222	Statistics^	3	MTH123 or proficiency
ENG231	College Composition II	3	ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		16	
<u>Third Semester</u>			
MGT221	Supervision	3	MGT121
BUS221	Microeconomics^	3	IDS102 or proficiency
MGT227	Operations Management	4	MGT121 and ACC127
ACC133	Managerial Accounting	4	ACC132
PSY121	General Psychology	<u>3</u>	IDS102 or proficiency
		17	
<u>Fourth Semester</u>			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics^	3	IDS102 or proficiency
MGT223	Business Decision Making	4	ACC133 and MGT121
	Arts and Humanities Elective	3	None/ENG124
ACC130	Business Law & Ethics	3	None
ACC223	Cost Accounting	<u>4</u>	ACC127 and ACC133
		20	
<b>TOTAL CREDITS</b>		<b>71</b>	

^ Based upon SSC placement score

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

**Additional Courses Needed for a BBA Degree:**

PHL 122 Ethics 3 credit hours

MTH221 Concepts of Calculus 3 credit hours

Two Basic Science Courses (Transfer Module) 6 credit hours (min) - 3 cr. (min) must involve lab class

indicated by (\*) - BIO 101 or \*BIO126,

CHM 101 or \*CHM121,

PHY 101 or \*PHY121

**Another 45 credit hours must be taken at Kent State University to obtain BBA degree**

Reviewed 3/2012

Revised 2/2012





# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2059

## BUSINESS MANAGEMENT – SMALL BUSINESS MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT222	Small Business Management	3	ACC133 and MGT121	
MGT223	Business Decision Making	4	ACC133 and MGT121	
MGT224	Human Resource Management	3	MGT121	
MKT121	Principles of Marketing	3	BUS121	
MKT221	Sales	3	MKT121 or ENT121	
MKT226	Supply Chain Management	3	MKT121	
<b>TOTAL</b>		<b>33</b>		
NON-TECH Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ ENG124	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
ITD122	Computer Applications for Professionals <sup>+</sup>	3	ITD100 or proficiency	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
	Arts and Humanities Elective <sup>*</sup>	3	None/ENG124	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

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

<sup>+</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS MANAGEMENT – SMALL BUSINESS MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals+ <sup>^</sup>	3	ITD100 or proficiency
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
MTH125	College Algebra <sup>^</sup>	<u>4</u>	MTH123 or proficiency
		18	
<u>Second Semester</u>			
MGT121	Principles of Management	3	BUS121
MKT121	Principles of Marketing	3	BUS121
ACC127	Quantitative Business Statistics	4	BUS124
COM121	Effective Speaking		
or			
ENG230	Business Communication	3	ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT221	Supervision	3	MGT121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
MKT221	Sales	3	MKT121 OR ENT121
ACC133	Managerial Accounting	4	ACC132
ACC130	Business Law & Ethics	<u>3</u>	None
		16	
<u>Fourth Semester</u>			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency
MGT223	Business Decision Making	4	ACC133 and MGT121
	Arts and Humanities	3	None/ENG124
MGT222	Small Business Management	3	ACC133 and MGT121
MKT226	Supply Chain Management	<u>3</u>	MKT121
		19	
<b>TOTAL CREDITS</b>		<b>70</b>	

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

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2065

## BUSINESS MANAGEMENT – TRINE UNIVERSITY MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
ECA147	Adv Comp App for Tech Prof	3	ITD122	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT223	Business Decision Making	4	ACC133 and MGT121	
MGT224	Human Resource Management	3	MGT121	
MGT227	Operations Management	4	MGT121 and MTH222	
MGT232	International Business	3	BUS121	
MKT121	Principles of Marketing	3	BUS121	
<b>TOTAL</b>		<b>30</b>		
NON-TECH. Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
ITD122	Computer Applications for Professionals <sup>+</sup>	3	ITD100 or passing score on the computer entrance test	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
MTH128	Basic Trigonometry	1	Co- requisite MTH125	
MTH222	Statistics <sup>^</sup>	3	MTH123 or proficiency	
	Arts and Humanities Elective <sup>*</sup>	3	None/ENG124	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>67</b>		

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

<sup>+</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BUSINESS MANAGEMENT - TRINE UNIVERSITY MAJOR**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency
ITD122	Computer Applications for Professionals+	3	ITD100 or passing score on the computer entrance test
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency
MTH128	Basic Trigonometry <sup>^</sup>	1	co-requisite MTH125
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
COM121 or ENG230	Effective Speaking or Business Communication	<u>3</u>	None/ENG124
		18	
<u>Second Semester</u>			
MGT121	Principles Management	3	BUS121
MKT121	Principles of Marketing	3	BUS121
MTH222	Statistics <sup>^</sup>	3	MTH123 or proficiency
ACC132	Financial Accounting	<u>4</u>	BUS124
		13	
<u>Third Semester</u>			
MGT221	Supervision	3	MGT121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
MGT227	Operations Management	4	MGT121 and MTH222
ACC133	Managerial Accounting	4	ACC132
ECA147	Adv Comp App for Tech Prof	<u>3</u>	ITD122
		17	
<u>Fourth Semester</u>			
MGT224	Human Resource Management	3	MGT121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency
MGT223	Business Decision Making	4	ACC133 and MGT121
	Arts and Humanities Elective*	3	None/ENG124
ACC130	Business Law & Ethics	3	None
MGT232	International Business	<u>3</u>	BUS121
		19	
<b>TOTAL CREDITS</b>		<b>67</b>	

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

<sup>+</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2400

## CORPORATE FINANCE

Effective Summer 2012

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	4	ACC133	
ACC238	Financial Statement Analysis	4	ACC133	
FIN220	Business Finance	4	ACC133	
FIN224	Risk Management	4	ACC132	
FIN227	Money & Banking	3	BUS124	
BUS124	Business Analysis with Algebra	4	-	
<b>TOTAL</b>		<b>35</b>		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	-	
ITD122	Computer Applications for Professionals <sup>++</sup>	3	ITD100 or proficiency	
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency	
COM121	Effective Speaking	3	-	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or Proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
MGT121	Principles of Management	3	BUS121	
MTH125or MTH222	College Algebra or Statistics <sup>^</sup>	4/3	MTH123 or Proficiency	
	Arts and Humanities Elective*	3	Some courses may require pre- or co-requisites	
<b>TOTAL</b>		<b>35/36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70/71</b>		

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

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**CORPORATE FINANCE**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency
ITD122	Computer Applications for Professionals++ <sup>^</sup>	3	ITD100 or proficiency
BUS124	Business Analysis with Algebra	4	-
ACC130	Business Law & Ethics	<u>3</u>	-
		17	
<u>Second Semester</u>			
ACC132	Financial Accounting+	4	BUS124
ACC127	Quantitative Business Statistics	4	BUS124
MGT121	Principles of Management	3	BUS121
COM121	Effective Speaking	3	
	Arts and Humanities Elective*	<u>3</u>	Some courses may require pre- or co-requisites
		17	
<u>Third Semester</u>			
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
ACC133	Managerial Accounting	4	ACC132
ACC228	Business Taxation	4	ACC132
FIN227	Money & Banking	3	BUS124
MTH125/MTH222	College Algebra/Statistics <sup>^</sup>	<u>4/3</u>	MTH123 or Proficiency
		17/18	
<u>Fourth Semester</u>			
ACC237	Fraud Examination	4	ACC133
ACC238	Financial Statement Analysis	4	ACC133
BUS222	Macroeconomics	3	IDS102 or Proficiency
FIN224	Risk Management	4	ACC132
FIN220	Business Finance	<u>4</u>	ACC133
		19	
<b>TOTAL CREDITS</b>		<b>70/71</b>	

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

\* Select from: HIS121, HIS122, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241, PHL122 or SOC225

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

++ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.



# BUSINESS AND ENTREPRENEURIAL STUDIES

## ASSOCIATE OF APPLIED BUSINESS

2070

### ENTREPRENEURSHIP

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENT120	Entrepreneurship <sup>^</sup>	3	IDS102 or proficiency	
ENT121	Entrepreneurial Marketing	3	ENT120	
ENT123	Entrepreneurial Accounting	3	ENT120	
ENT124	Managing Entrepreneurial Growth	3	ENT120	
ENT221	Entrepreneurial Finance	3	ENT120	
ENT223	Entrepreneurship Practicum/Field Project	5	MGT234	
ENT224	Entrepreneurial Law	3	ENT120	
ENT225	Global Entrepreneurship	3	ENT120	
MGT233	Business Leadership	3	ENT120	
MGT234	Business Plan Development	3	ENT221	
<b>TOTAL</b>		<b>32</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC229	Computerized Accounting Applications	3	ENT123 and ITD122	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ ENG124	
HIS122	US History II	3	None	
ITD122	Computer Applications for Professionals <sup>+</sup>	3	ITD100 or proficiency	
MKT221	Sales	3	MKT 121 or ENT121	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
	Arts and Humanities Elective	3	None/ENG124	
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

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

<sup>+</sup> Successful completion of AOT102, AOT104, AOT105, and AOT106 may be substituted for ITD122.

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012  
Revised 2/2012



Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ENTREPRENEURSHIP**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ENT120	Entrepreneurship <sup>^</sup>	3	IDS102 or proficiency
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
HIS122	US History II	<u>3</u>	None
		17	
<u>Second Semester</u>			
ENT121	Entrepreneurial Marketing	3	ENT120
ENT124	Managing Entrepreneurial Growth	3	ENT120
ENT123	Entrepreneurial Accounting	3	ENT120
ENT221	Entrepreneurial Finance	3	ENT120
ITD122	Computer Applications for Professionals <sup>+</sup>	3	ITD100 or proficiency
		<u>15</u>	
<u>Third Semester</u>			
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency
MGT234	Business Plan Development	3	ENT221
MKT221	Sales	3	ENT121 OR MKT121
ACC229	Computerized ACCTG. Applications	3	ACC132 or ACC121 or ENT123 and ITD122
COM121 or ENG230	Effective Speaking Business Communication	<u>3</u>	ENG124
		19	
<u>Fourth Semester</u>			
MGT233	Business Leadership	3	ENT120
ENT223	Entrepreneurship Practicum-Field Project	5	MGT234
ENT224	Entrepreneurial Law	3	ENT120
	Arts and Humanities Elective	3	None/ENG124
ENT225	Global Entrepreneurship	<u>3</u>	ENT120
		17	
<b>TOTAL CREDITS</b>		<b>68</b>	

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

<sup>+</sup> Successful completion of AOT102, AOT104, AOT105, and AOT106 may be substituted for ITD122.

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)



# BUSINESS AND ENTREPRENEURIAL STUDIES

## ONE-YEAR OBR CERTIFICATE

2071

### ENTREPRENEURSHIP CERTIFICATE

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENT120	Entrepreneurship	3	IDS102 or Proficiency	
ENT121	Entrepreneurial Marketing	3	ENT120 or Department Approval	
ENT123	Entrepreneurial Accounting	3	ENT120	
ENT221	Entrepreneurial Finance	3	ENT120 or Department Approval	
MGT234	Business Plan Development	3	ENT221	
<b>TOTAL</b>		<b>15</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS124	Business Analysis with Algebra	4	None	
COM121	Effective Speaking	3	None	
ENG124	College Composition^	3	ENG105 or Proficiency	
ITD122	Computer Applications for Professionals+	3	ITD100 or Proficiency	
SOC225	Cultural Diversity	3	None	
<b>TOTAL</b>		<b>16</b>		
<b>TOTAL CREDIT HOURS</b>		<b>31</b>		

^ Based upon SSC placement score

+ Successful completion of AOT102, AOT104, AOT105, and AOT106 may be substituted for ITD122.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ENTREPRENEURSHIP CERTIFICATE**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ENT120	Entrepreneurship	3	IDS102 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
ITD122	Computer Applications for Professionals+	3	ITD100 or proficiency
BUS124	Business Analysis with Algebra	4	None
COM121	Effective Speaking	<u>3</u>	None
		16	
<u>Second Semester</u>			
ENT121	Entrepreneurial Marketing	3	ENT120 or Department Approval
MGT234	Business Plan Development	3	ENT221
ENT221	Entrepreneurial Finance	3	ENT120 or Department Approval
ENT123	Entrepreneurial Accounting	3	ENT120
SOC225	Cultural Diversity	<u>3</u>	None
		15	
<b>TOTAL CREDITS</b>		<b>31</b>	

^ Based upon SSC placement score

+ Successful completion of AOT102, AOT104, AOT105, and AOT106 may be substituted for ITD122.



# BUSINESS AND ENTREPRENEURIAL STUDIES

## ASSOCIATE OF ARTS

2075

### FASHION MERCHANDISING

Effective Summer 2012

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>CORE CLASSES (required)</b>				
FAS121	Fundamentals of the Fashion Industry	3		
BUS121	Business Administration^	4	IDS102 or Proficiency	
FAS122	History of Fashion	3	FAS121	
FAS221	Introduction to Textiles	3	FAS121	
FAS123	Visual Merchandising	3	FAS121	
<b>ELECTIVES (9-11 credits minimum)</b>				
MKT121	Principles of Marketing	3	BUS121	
MGT121	Principles of Management	3	BUS121	
ENT120	Entrepreneurship	3	IDS102	
MKT229	Market Planning	3	MKT121	
MKT221	Sales	3	MKT121 or ENT121	
ACC130	Business Law & Ethics	3		
MGT221	Supervision	3	MGT121	
MKT227	Consumer Behavior	3	MKT121	
MKT226	Supply Chain Management	3	MKT121	
MGT224	Human Resource Management	3	MGT121	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
<b>TOTAL</b>		<b>25/27</b>		
<b>COMPUTER APPLICATIONS (3 credit hours minimum)</b>				
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency	
<b>ENGLISH COMPOSITION (6 credit hours minimum)</b>				
ENG124	College Composition ( <b>required</b> )^	3	ENG105 or proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG231	College Composition II	3	ENG124	
<b>SOCIAL &amp; BEHAVIORAL SCIENCES (9 credit hours minimum)</b>				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or proficiency	
SOC121	Sociology^	3	IDS102 or proficiency	
SOC225	Cultural Diversity ( <b>required</b> )	3		
BUS122	Basic Economics^	3	IDS102 or proficiency	
BUS221	Microeconomics ( <b>required</b> )^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
<b>ARTS &amp; HUMANITIES (12 credit hours minimum)</b>				
COM121	Effective Speaking ( <b>required</b> )	3		
PHL122	Ethics	3		
ENG233	British Literature I	3	ENG124	
ENG234	British Literature II	3	ENG124	
HIS121	U.S. History I	3		
HIS122	U.S. History II	3		

<b>SCIENCES &amp; MATHEMATICS: 3-4 semester credit hours in Math minimum and 6 semester credit hours in Natural and Physical Sciences minimum (1 lab course required)</b>				
	<u>Natural and Physical Sciences</u>			
BIO101	Intro. to Anatomy & Physiology+^	3	IDS102 or proficiency	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment	4		
BIO127	Human Biology (lab course)	4		
BIO141	General Biology I (lab course)	4		
BIO142	General Biology II (lab course)	4		
CHM101	Intro. to Chemistry+^	4	MTH123 or proficiency	
PHY101	Principles of Physics (lab course)^	4	MTH123 or proficiency and IDS102 or proficiency	
	<u>Mathematics</u>			
MTH125	College Algebra^	4	MTH123 or proficiency	
MTH126	Precalculus	4	MTH 125 or proficiency	
MTH222	Statistics	3	MTH123 or proficiency	
<b>TOTAL</b>		<b>39/40</b>		
<b>TOTAL CREDIT HOURS</b>		<b>64/70</b>		

^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.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**FASHION MERCHANDISING**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre-requisites
ENG124	College Composition <sup>^</sup>	3	ENG101 or proficiency
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or proficiency
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency
FAS121	Fundamentals of the Fashion Industry	3	
	<i>Arts &amp; Humanities Elective</i> ****	3	Check for Pre-Requisite
	<i>Mathematics Elective</i> **	<u>3/4</u>	Check for Pre-Requisite
		19/20	
<u>Second Semester</u>			
COM121	Effective Speaking	3	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
FAS122	History of Fashion	3	FAS121
	<i>English Composition &amp; Literature Elective</i> *****	3	Check for Pre-Requisite
	<i>Sciences Elective</i> *	3/4	Check for Pre-Requisite
	<i>Arts &amp; Humanities Elective</i> ****	<u>3</u>	Check for Pre-Requisite
		18/19	
<u>Third Semester</u>			
FAS221	Introduction to Textiles	3	FAS121
FAS123	Visual Merchandising	3	FAS121
SOC225	Cultural Diversity	3	
	<i>Arts &amp; Humanities Elective</i> ****	3	Check for Pre-Requisite
	<i>Sciences Elective</i> <sup>1</sup>	3/4	Check for Pre-Requisite
	<i>Social &amp; Behavioral Sciences</i> *****	<u>3</u>	
		18/19	
<u>Fourth Semester</u>			
	<i>Business Elective</i> ***	3/4	Check for Pre-Requisite
	<i>Business Elective</i> ***	3/4	Check for Pre-Requisite
	<i>Business Elective</i> ***	<u>3/4</u>	Check for Pre-Requisite
		9/12	
<b>TOTAL CREDITS</b>		<b>64/70</b>	

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

+ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

\*Select from BIO101, BIO125, BIO126, BIO127, BIO141, BIO142, CHM101, PHY101

\*\* Select from MTH125, MTH126, MTH222

\*\*\* Select from ACC132, ACC133, MGT221, ACC130, MKT227, MKT226, MGT224, MKT121, MGT121, ENT120, MKT229, MKT221

\*\*\*\* Select from PHL122, ENG233, ENG234, HIS121, HIS122,

\*\*\*\*\* Select from ENG221, ENG230, ENG231

\*\*\*\*\* Select from PSC121, PSY121, SOC121, BUS122, BUS222



# BUSINESS AND ENTREPRENEURIAL STUDIES

## ASSOCIATE OF APPLIED BUSINESS

2300

### MARKETING MANAGEMENT

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration^	4	IDS102 or Proficiency	
MGT121	Principles of Management	3	BUS121	
MKT121	Principles of Marketing	3	BUS121	
MKT221	Sales	3	MKT121 or ENT121	
MKT222	Advertising	3	MKT121	
MKT227	Consumer Behavior	3	MKT121	
MKT229	Market Planning	4	MKT121	
MKT236	E- Marketing	3	MKT121	
MKT233	Market Research	3	MKT121 and ACC127	
<b>TOTAL</b>		<b>33</b>		
NON-TECH. Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3		
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4		
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	ENG124	
	Arts & Humanities Elective*	3		
ITD122	Computer Applications for Professionals^+	3	ITD100 or proficiency	
MTH125	College Algebra^	4	MTH123 or proficiency	
<b>TOTAL</b>		<b>40</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

^ Based upon SSC placement score

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241  
(All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Revised 2/2012



Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MARKETING MANAGEMENT**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency
ITD122	Computer Applications for Professionals+ <sup>^</sup>	3	ITD100 or proficiency
BUS124	Business Analysis with Algebra	4	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
MTH125	College Algebra	<u>4</u>	
		18	
<u>Second Semester</u>			
MKT121	Principles of Marketing	3	BUS121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency
ACC127	Quantitative Business Statistics	4	BUS124
SOC121 or	Sociology		
ENG230	Business Communication	3	ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT121	Principles of Management	3	BUS121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or Proficiency
MKT221	Sales	3	MKT121 or ENT121
MKT222	Advertising	3	MKT121
ACC133	Managerial Accounting	4	ACC132
MKT227	Consumer Behavior	<u>3</u>	MKT121
		19	
<u>Fourth Semester</u>			
MKT229	Market Planning	4	MKT121
MKT233	Market Research	3	MKT121 and ACC127
MKT236	E-Marketing	3	MKT121
	Arts and Humanities Elective *	3	
ACC130	Business Law & Ethics	<u>3</u>	-
		16	
<b>TOTAL CREDITS</b>		<b>70</b>	

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

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241  
 (All ENG courses' prerequisite: ENG124)



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2303

## MARKETING MANAGEMENT - E-COMMERCE MARKETING MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration^	4	IDS102 or proficiency	
ECA138	Web Graphics Design	3	ECA228	
ECA154	Web Design with Dreamweaver	3	ECA228	
ECA225	Web Development with Javascript AJAX	3	ECA228	
ECA228	Internet/Intranet Design & Development^	3	IDS101 or proficiency	
MGT121	Principles of Management	3	BUS121	
MKT121	Principles of Marketing	3	BUS121	
MKT222	Advertising	3	MKT121	
MKT229	Market Planning	4	MKT121	
MKT236	E-Marketing	3	MKT121	
<b>TOTAL</b>		<b>36</b>		
NON-TECH. Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics^	3	IDS102 or proficiency	
BUS222	Macroeconomics^	3	IDS102 or proficiency	
ENG124	College Composition^^	3	ENG105 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124	
MTH125	College Algebra^	4	MTH123 or proficiency	
	Arts and Humanities Elective	3	None/ENG124	
<b>TOTAL</b>		<b>34</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

^ Based upon SSC placement score

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MARKETING MANAGEMENT - E-COMMERCE MARKETING**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ECA228	Internet/Intranet Design & Development	3	IDS101 or proficiency
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency
		18	
<u>Second Semester</u>			
MKT121	Principles of Marketing	3	BUS121
ACC127	Quantitative Business Statistics	4	BUS124
ENG230	Business Communication	3	ENG124
ACC132	Financial Accounting	4	BUS124
ECA154	Web Design with Dreamweaver	<u>3</u>	ECA228
		17	
<u>Third Semester</u>			
MGT121	Principles of Management	3	BUS121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
MKT222	Advertising	3	MKT121
ACC133	Managerial Accounting	4	ACC132
ECA138	Web Graphics Design	<u>3</u>	ECA228
		16	
<u>Fourth Semester</u>			
MKT229	Market Planning	4	MKT121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency
MKT236	E-Marketing	3	MKT121
ECA225	Web Development with Javascript AJAX	3	ECA228
	Arts and Humanities Elective	3	None/ENG124
ACC130	Business Law & Ethics	<u>3</u>	None
		19	
<b>TOTAL CREDITS</b>		<b>70</b>	

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

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2304

## MARKETING MANAGEMENT - LOGISTICS MAJOR

*Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
MGT121	Principles of Management	3	BUS121	
MKT121	Principles of Marketing	3	BUS121	
MKT226	Supply Chain Management	3	MKT121	
MKT229	Market Planning	4	MKT121	
MKT233	Market Research	3	MKT121 and ACC127	
MKT234	Principles of Transportation	3	MKT226	
MKT235	Intro to Logistics	4	ACC127 and MKT226	
MKT236	E-Marketing	3	MKT121	
<b>TOTAL</b>		<b>34</b>		
NON-TECH. Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency	
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124	
ITD122	Computer Applications for Professionals <sup>^+</sup>	3	ITD100 or passing score on the computer entrance test	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
	Arts and Humanities Elective	3	None/ENG124	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

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

<sup>+</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MARKETING MANAGEMENT - LOGISTICS MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals+ <sup>^</sup>	3	ITD100 or passing score on the computer entrance test
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
MTH125	College Algebra <sup>^</sup>	<u>4</u>	MTH123 or proficiency
		18	
<u>Second Semester</u>			
MKT121	Principles of Marketing	3	BUS121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
ACC127	Quantitative Business Statistics	4	BUS124
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT121	Principles of Management	3	BUS121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency
MKT226	Supply Chain Management	3	MKT121
MKT236	E-Marketing	3	MKT121
ACC133	Managerial Accounting	4	ACC132
	Arts and Humanities Elective*	<u>3</u>	None
		19	
<u>Fourth Semester</u>			
MKT229	Market Planning	4	MKT121
MKT233	Market Research	3	MKT121 and ACC127
MKT234	Principles of Transportation	3	MKT226
MKT235	Introduction to Logistics	4	ACC127 and MKT226
ACC130	Business Law & Ethics	<u>3</u>	None
		17	
<b>TOTAL CREDITS</b>		<b>71</b>	

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

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)



# BUSINESS AND ENTREPRENEURIAL STUDIES

Associate of Applied Business

2301

## MARKETING MANAGEMENT - SALES MAJOR

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC127	Quantitative Business Statistics	4	BUS124	
BUS121	Business Administration^	4	IDS102 or proficiency	
MGT121	Principles of Management	3	BUS121	
MGT221	Supervision	3	MGT121	
MGT224	Human Resource Management	3	MGT121	
MKT121	Principles of Marketing	3	BUS121	
MKT221	Sales	3	MKT121	
MKT226	Supply Chain Management	3	MKT121	
MKT227	Consumer Behavior	3	MKT121	
MKT229	Market Planning	4	MKT121	
<b>TOTAL</b>		<b>33</b>		
NON-TECH. Course Number	Course Title	Credits	Pre-Requisites	Completed Sem./Year
ACC130	Business Law & Ethics	3	None	
ACC132	Financial Accounting	4	BUS124	
ACC133	Managerial Accounting	4	ACC132	
BUS124	Business Analysis with Algebra	4	None	
BUS221	Microeconomics^	3	IDS102 or proficiency	
BUS222	Macroeconomics^	3	IDS102 or proficiency	
ENG124	College Composition^	3	ENG105 or proficiency	
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124	
ITD122	Computer Applications for Professionals+	3	ITD100 or passing score on the computer entrance test	
MTH125	College Algebra^	4	MTH123 or proficiency	
	Arts and Humanities Elective*	3	None/ENG124	
<b>TOTAL</b>		<b>37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

^ Based upon SSC placement score

+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

\* Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)

Reviewed 3/2012

Reviewed 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MARKETING MANAGEMENT - SALES**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre-requisites
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency
ITD122	Computer Applications for Professionals+	3	ITD100 or passing score on the computer entrance test
BUS124	Business Analysis with Algebra	4	None
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
MTH125	College Algebra <sup>^</sup>	<u>4</u>	MTH123 or proficiency
		18	
<u>Second Semester</u>			
MKT121	Principles of Marketing	3	BUS121
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or proficiency
ACC127	Quantitative Business Statistics	4	BUS124
COM121 or ENG230	Effective Speaking or Business Communication	3	None/ENG124
ACC132	Financial Accounting	<u>4</u>	BUS124
		17	
<u>Third Semester</u>			
MGT121	Principles of Management	3	BUS121
BUS222	Macroeconomics <sup>^</sup>	3	IDS102 or proficiency
MKT221	Sales	3	MKT121
ACC133	Managerial Accounting	4	ACC132
MKT227	Consumer Behavior	<u>3</u>	MKT121
		16	
<u>Fourth Semester</u>			
MGT221	Supervision	3	MGT121
MKT226	Supply Chain Management	3	MKT121
MGT224	Human Resource Management	3	MGT121
MKT229	Market Planning	4	MKT121
	Arts and Humanities Elective*	3	None/ENG124
ACC130	Business Law & Ethics	<u>3</u>	None
		19	
<b>TOTAL CREDITS</b>		<b>70</b>	

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

<sup>+</sup> Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for ITD122.

<sup>\*</sup> Select from: HIS121, HIS122, PHL122, SOC225, ENG233, ENG234, ENG235, ENG236, ENG237, ENG240, ENG241 (All ENG courses' prerequisite: ENG124)





# EDUCATION AND HUMAN SERVICES

## ASSOCIATE OF APPLIED SCIENCE

1050

### EARLY CHILDHOOD EDUCATION

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EDU121	Introduction to Early Childhood Education <sup>^+</sup> (15 O.H.)	3	ENG 105 or Proficiency	
EDU122	Curriculum Design & Instruction+ (15 O.H.)	3	EDU121	
EDU123	Health & Nutrition (5 O.H.)	3		
EDU124	Infant-Toddler Curriculum+ (5 O.H.)	2	PSY125	
EDU221	Language Arts+ (10 O.H.)	3	EDU122	
EDU222	Creative Materials & Guided Play+ (10 O.H.)	3	EDU122	
EDU223	Community & Family-Based Programs+ (5 O.H.)	3	EDU121	
EDU224	Early Childhood Program Administration	3	EDU121	
EDU225	The Exceptional Child+ (5 O.H.)	3	EDU221 & EDU222	
EDU226	Wrap-around Programs (5 O.H.)	2	EDU121	
EDU227	ECE Practicum & Seminar (210 Hours)+	3	EDU222	
EDU228	Phonics for Young Children+/++ (5 O.H.)	3	EDU221	
EDU229	Educational Psychology (5 O.H.)	3		
	<b>Total</b>	<b>37</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PSY121	General Psychology <sup>^</sup>	3	IDS 102 or Proficiency	
PSY125	Child Development+ (10 O.H.)	3		
SOC123	Dynamics of the Family	3		
SOC225	Cultural Diversity+	3		
PHL122	Ethics	3		
ENG124	College Composition <sup>^</sup>	3	ENG 105 or Proficiency	
MTH222	Statistics <sup>^</sup>	3	MTH 123 or Proficiency	
COM121	Effective Speaking	3		
BIO126	Science, Energy and the Environment	4		
EDU126	Educational Technology	3		
	<b>Total</b>	<b>31</b>		
	<b>Total Credit Hours</b>	<b>68</b>		

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

+ Requires a grade of "C" or better

++ Course offered this semester only

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

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Early Childhood Education**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
EDU121	Introduction to Early Childhood Education^+ (15 Observation Hours)	3	ENG 105 or Proficiency
EDU126	Educational Technology	3	
SOC123	Dynamics of the Family	3	
PSY121	General Psychology^	3	IDS 102 or Proficiency
ENG124	College Composition^	<u>3</u>	ENG 105 or Proficiency
		15	
<u>Second Semester</u>			
EDU122	Curriculum Design and Instruction+ (15 Observation Hours)	3	EDU121
EDU123	Health & Nutrition (5 Observation Hours)	3	
SOC225	Cultural Diversity+	3	
PSY125	Child Development+ (10 Observation Hours)	3	
MTH222	Statistics^	3	MTH 123 or Proficiency
COM121	Effective Speaking	<u>3</u>	
		18	
<u>Third Semester</u>			
EDU221	Language Arts+ (10 Observation Hours)	3	EDU122
EDU222	Creative Materials & Guided Play+ (10 Observation Hours)	3	EDU122
EDU223	Community & Family-based Program+ (5 Observation Hours)	3	EDU121
EDU229	Educational Psychology (5 Observation Hours)	3	
EDU226	Wrap-around Programs (5 Observation Hours)	2	EDU121
PHL122	Ethics	3	
EDU124	Infant-Toddler Curriculum+ (5 Observation Hours)	<u>2</u>	PSY125
		19	
<u>Fourth Semester</u>			
EDU224	Early Childhood Program Administration	3	EDU121
EDU225	The Exceptional Child+ (5 Observation Hours)	3	EDU221 & EDU222
EDU228	Phonics for Young Children+/++ (5 Observation Hours)	3	EDU221
EDU227	ECE Practicum and Seminar (210 Hours)+	3	EDU222
BIO126	Science, Energy and the Environment	<u>4</u>	
		16	
<b>TOTAL CREDITS</b>		<b>68</b>	

^ Based on SSC placement score

+ Requires a grade of "C" or better

++ Course offered this semester only

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



# EDUCATION AND HUMAN SERVICES ASSOCIATE OF APPLIED SCIENCE

1053

## **EARLY CHILDHOOD EDUCATION – INFANT AND TODDLER MAJOR**

*Effective Summer 2012*

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
EDU121	Introduction to Early Childhood Education^+ (15 O.H.)	3	ENG105 or Proficiency	
EDU122	Curriculum Design & Instruction+ (15 O.H.)	3	EDU121	
EDU123	Health and Nutrition (5 O.H.)	3		
EDU124	Infant-Toddler Curriculum+ (5 O.H.)	2	PSY125	
EDU127	Infant and Toddler Group Care+ (5 O.H.)	3		
EDU128	Responsive Infant and Toddler Environment+ (5 O.H.)	3		
EDU129	Relationship Development for Infants and Toddlers+ (5 O.H.)	3	EDU127	
EDU221	Language Arts+ (10 O.H.)	3	EDU122	
EDU222	Creative Materials & Guided Play+ (10 O.H.)	3	EDU122	
EDU223	Community & Family-Based Programs+ (5 O.H.)	3	EDU121	
EDU224	Early Childhood Program Administration	3	EDU121	
EDU225	The Exceptional Child+ (5 O.H.)	3	EDU221 & EDU222	
EDU227	ECE Practicum & Seminar (210 Hours)	3	EDU222	
EDU229	Educational Psychology (5 O.H.)	3		
	<b>Total</b>	<b>41</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
PSY121	General Psychology^	3	IDS102 or Proficiency	
PSY125	Child Development+ (10 O.H.)	3		
SOC123	Dynamics of the Family	3		
SOC225	Cultural Diversity+	3		
PHL122	Ethics	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
COM121	Effective Speaking	3		
BIO126	Science, Energy, and the Environment	4		
EDU126	Educational Technology	3		
	<b>Total</b>	<b>31</b>		
	<b>Total Credit Hours</b>	<b>72</b>		

^ Based on SSC placement score

+ Requires a grade of "C" or better

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

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Early Childhood Education – Infant and Toddler Major**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Prerequisites
EDU121	Introduction to Early Childhood Education^+ (15 O.H.)	3	ENG105 or Proficiency
SOC123	Dynamics of the Family	3	
PSY121	General Psychology^	3	IDS102 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
EDU123	Health and Nutrition (5 O.H.)	3	
EDU127	Infant and Toddler Group Care + (5 O.H.)	<u>3</u>	
		18	
<u>Second Semester</u>			
EDU122	Curriculum Design and Instruction+ (15 O.H.)	3	EDU121
SOC225	Cultural Diversity+	3	
PSY125	Child Development+ (10 O.H.)	3	
MTH222	Statistics^	3	MTH123 or Proficiency
COM121	Effective Speaking	3	
EDU128	Responsive Infant and Toddler Environment+ (5 O.H.)	<u>3</u>	
		18	
<u>Third Semester</u>			
EDU221	Language Arts+ (10 O.H.)	3	EDU122
EDU222	Creative Materials & Guided Play+ (10 O.H.)	3	EDU122
EDU223	Community and Family-based Programs+ (5 O.H.)	3	EDU121
EDU229	Education Psychology (5 O.H.)	3	
EDU124	Infant-Toddler Curriculum+ (5 O.H.)	2	PSY125
EDU129	Relationship Development for Infants and Toddlers + (5 O.H.)	<u>3</u>	EDU127
		17	
<u>Fourth Semester</u>			
EDU224	Early Childhood Program Administration	3	EDU121
EDU225	The Exceptional Child+ (5 O.H.)	3	EDU221 & EDU222
EDU227	ECE Practicum and Seminar (210 Hours)	3	EDU222
BIO126	Science, Energy and the Environment	4	
EDU126	Educational Technology	3	
PHL122	Ethics	<u>3</u>	
		19	
<b>TOTAL CREDITS</b>		<b>72</b>	

^ Based on SSC placement score

+ Requires a grade of "C" or better

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



# EDUCATION AND HUMAN SERVICES

## ASSOCIATE OF APPLIED SCIENCE

1051

### **EARLY CHILDHOOD EDUCATION – INTERVENTION SPECIALIST MAJOR**

*Effective Summer 2012*

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
EDU121	Introduction to Early Childhood Education <sup>^+</sup> (15 O.H.)	3	ENG105 or Proficiency	
EDU122	Curriculum Design & Instruction <sup>+</sup> (15 O.H.)	3	EDU121	
EDU124	Infant-Toddler Curriculum <sup>+</sup> (5 O.H.)	2	PSY125	
EDU221	Language Arts <sup>+</sup> (10 O. H.)	3	EDU122	
EDU222	Creative Materials & Guided Play <sup>+</sup> (10 O. H.)	3	EDU122	
EDU223	Community & Family-Based Programs <sup>+</sup> (5 O.H.)	3	EDU121	
EDU224	Early Childhood Program Administration	3	EDU121	
EDU225	The Exceptional Child <sup>+</sup> (5 O.H.)	3	EDU221 & EDU222	
EDU226	Wrap-around Program (5 O.H.)	2	EDU121	
EDU227	ECE Practicum & Seminar (210 Hours)	3	EDU222	
EDU228	Phonics for Young Children <sup>+/++</sup> (5 O.H.)	3	EDU221	
EDU125	Children w/Physical Exceptionalities <sup>+/++</sup> (5 O.H.)	3		
EDU230	Children w/Socioemotional Exceptionalities <sup>+/++</sup> (5 O.H.)	3		
EDU229	Educational Psychology (5 O.H.)	3		
	<b>Total</b>	<b>40</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
PSY121	General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PSY125	Child Development <sup>+</sup> (10. O.H.)	3		
SOC123	Dynamics of the Family	3		
SOC225	Cultural Diversity <sup>+</sup>	3		
PHL122	Ethics	3		
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency	
COM121	Effective Speaking	3		
BIO126	Science, Energy, and the Environment	4		
EDU126	Educational Technology	3		
	<b>Total</b>	<b>31</b>		
	<b>Total Credit Hours</b>	<b>71</b>		

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

<sup>+</sup> Requires a grade of “C” or better

<sup>++</sup> Offered this semester only

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

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**EARLY CHILDHOOD EDUCATION – INTERVENTION SPECIALIST MAJOR**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Prerequisites
EDU121	Introduction to Early Childhood Education^+ (15 O.H.)	3	ENG105 or Proficiency
SOC123	Dynamics of the Family	3	
PSY121	General Psychology^	3	IDS102 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
EDU126	Educational Technology	3	
PHL122	Ethics	<u>3</u>	
		18	
<u>Second Semester</u>			
EDU122	Curriculum Design and Instruction+ (15 O.H.)	3	EDU121
SOC225	Cultural Diversity+	3	
PSY125	Child Development+ (10 O.H.)	3	
MTH222	Statistics^	3	MTH123 or Proficiency
COM121	Effective Speaking	3	
EDU125	Children with Physical Exceptionalities+/++ (5 O.H.)	<u>3</u>	
		18	
<u>Third Semester</u>			
EDU221	Language Arts+ (10 O.H.)	3	EDU122
EDU222	Creative Materials & Guided Play+ (10 O.H.)	3	EDU122
EDU223	Community and Family-based Programs+ (5 O.H.)	3	EDU121
EDU229	Education Psychology (5 O.H.)	3	
EDU230	Children with Socioemotional Exceptionalities+/++ (5 O.H.)	3	
EDU226	Wrap-around Programs (5 O.H.)	2	EDU121
EDU124	Infant-Toddler Curriculum+ (5 O.H.)	<u>2</u>	PSY125
		19	
<u>Fourth Semester</u>			
EDU224	Early Childhood Program Administration	3	EDU121
EDU225	The Exceptional Child+ (5 O.H.)	3	EDU221 & EDU222
EDU227	ECE Practicum and Seminar (210 Hours)	3	EDU222
EDU228	Phonics for Young Children+/++ (5 O.H.)	3	EDU221
BIO126	Science, Energy and the Environment	<u>4</u>	
		16	
<b>TOTAL CREDITS</b>		<b>71</b>	

^ Based on SSC placement score

+ Requires a grade of "C" or better

++ Offered this semester only

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



# EDUCATION AND HUMAN SERVICES

## OBR One-Year Certificate

1052

### Early Childhood Professionals

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^+	4	IDS 102 or Proficiency	
MGT121	Principles of Management+	3	BUS121	
EDU126	Educational Technology +	3		
ACC130	Business Law and Ethics	3		
EDU124 EDU226	Infant/Toddler Curriculum + <u>or</u> Wrap Around Programs	2	PSY125 or EDU121	
MGT221	Supervision+	3	MGT121	
EDU231	ECE Administrator Practicum and Seminar+	3	MGT 121	
	Elective#+	3	EDU121	
<b>TOTAL</b>		<b>24</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENG124	College Composition^	3	ENG105 or Proficiency	
COM121	Effective Speaking	3		
SOC123	Dynamics of the Family	3		
SOC225	Cultural Diversity+	3		
<b>TOTAL</b>		<b>12</b>		
<b>TOTAL CREDIT HOURS</b>		<b>36</b>		

^ Based upon SSC placement score

# Electives: EDU122; EDU223; EDU225; PSY125

+ Requires a grade of "C" or better

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**One-Year Certificate**  
**Early Childhood Professionals**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BUS121	Business Administration <sup>^</sup> +	4	IDS 102 or Proficiency
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
MGT121	Principles of Management+	3	BUS121
EDU126	Educational Technology+	3	-
SOC123	Dynamics of the Family	3	-
COM121	Effective Speaking	<u>3</u>	-
		19	
<u>Second Semester</u>			
ACC130	Business Law and Ethics	3	
SOC225	Cultural Diversity+	3	
EDU124	Infant/Toddler Curriculum+ <u>or</u>		PSY125
EDU226	Wrap-Around Programs	2	EDU121
MGT221	Supervision+	3	MGT121
EDU231	ECE Administrator Practicum & Seminar+	3	MGT121
	Elective#+	<u>3</u>	EDU 121 for EDU classes
		17	
<b>TOTAL CREDITS</b>		<b>36</b>	

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

# Electives: EDU122; EDU223; EDU225; PSY125

+ Requires a grade of "C" or better





# EDUCATION AND HUMAN SERVICES

## ONE YEAR CERTIFICATE

1075

### AMERICAN SIGN LANGUAGE ONE YEAR CERTIFICATE

Effective Summer 2012

TECHNICAL 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.)	3		
ASL123	Introduction to Interpreting+ (5 O. H.)	3		
ASL124	American Sign Language II+ (10 O. H.)	3	ASL122	
ASL125	Fingerspelling (5 O. H.)	2		
ASL221	American Sign Language III+ (10 O.H.)	3	ASL124	
ASL222	ASL Practicum and Seminar (210 Hours)+	3	ASL124	
	<b>Total</b>	<b>20</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENG124	College Composition ^	3	ENG105 or Proficiency	
COM121	Effective Speaking	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC123	Dynamics of the Family	3		
	<b>Total</b>	<b>12</b>		
<b>TOTAL CREDIT HOURS</b>		<b>32</b>		

^ Based on SSC placement score

+ Requires a grade of "C" or better

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

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**AMERICAN SIGN LANGUAGE ONE YEAR CERTIFICATE**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Prerequisites
ASL121	Introduction to the Deaf Culture and Community+ (5 O.H.)	3	
ASL122	American Sign Language I+ (10 O.H.)	3	
ASL123	Introduction to Interpreting+ (5 O.H.)	3	
COM121	Effective Speaking	<u>3</u> 12	
<u>Second Semester</u>			
ASL124	American Sign Language II+ (10 O.H.)	3	ASL122
ASL125	Fingerspelling (5 O.H.)	2	
ENG124	College Composition^	3	ENG105 or Proficiency
PSY121	General Psychology^	<u>3</u> 11	IDS102 or Proficiency
<u>Third Semester</u>			
ASL221	American Sign Language III+ (10 O.H.)	3	ASL124
ASL222	ASL Practicum and Seminar (210 Hours)+	3	ASL124
SOC123	Dynamics of the Family	<u>3</u> 9	
<b>Total Credit Hours</b>		<b>32</b>	

^ Based on SSC placement score

+ Requires a grade of "C" or better

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



# EDUCATION AND HUMAN SERVICES ASSOCIATE OF ARTS

1301

## CRIMINAL JUSTICE-CORRECTIONS MAJOR

Effective Summer 2012

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>English Composition: 6 credit hours minimum</b>				
ENG124	College Composition ^	3	ENG 105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
<b>Social &amp; Behavioral Sciences: 9 credit hours minimum</b>				
PSY121	General Psychology^	3	IDS 102 or Proficiency	
SOC121	Sociology^	3	IDS 102 or Proficiency	
SOC225	Cultural Diversity	3		
<b>Arts &amp; Humanities: 12 credit hours minimum</b>				
COM121	Effective Speaking	3		
PHL122	Ethics	3		
HIS121	U.S. History I	3		
HIS122	U.S. History II	3		
<b>Sciences &amp; Mathematics: 9-10 credits minimum (1 lab course required)</b>				
	<u>Natural Sciences</u>			
BIO126	Science, Energy, & the Environment (lab course)	4		
BIO127	Human Biology (lab course)	4		
	<u>Mathematics</u>			
MTH222	Statistics^	3	MTH 123 or Proficiency	
<b>Total</b>		<b>38</b>		
Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CJS121	Introduction to Criminal Justice+	3		
CJS129	Corrections+	3	CJS 121	
SOC222	Juvenile Delinquency	3	SOC 121	
CJS221	Criminology+	3	CJS 121	
CJS222	Criminal Law in the United States+	3	CJS121	
CJS227	Criminal Justice Practicum/Seminar+	3	CJS 221	
SWK225	Victimization and Crisis Intervention+	3		
SOC123	Dynamics of the Family	3		
ITD122	Computer Applications for Professionals^	3	ITD 100 or Proficiency	
	Elective#	3		
<b>Total</b>		<b>30</b>		
<b>Total Credit Hours</b>		<b>68</b>		

^ Based on SSC placement score

+ Requires a grade of "C" or better

# Select one elective;: CJS 124; ACC235; ACC236; PSC121; SWK125

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Criminal Justice – Corrections Major**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
CJS121	Intro to Criminal Justice+	3	-
SOC121	Sociology^	3	IDS 102 or Proficiency
PSY121	General Psychology^	3	IDS 102 or Proficiency
ENG124	College Composition ^	3	ENG 105 or Proficiency
ITD122	Computer Applications for Professionals^	3	ITD 100 or Proficiency
		<u>15</u>	
<u>Second Semester</u>			
CJS129	Corrections+	3	CJS 121
SOC225	Cultural Diversity	3	-
SOC222	Juvenile Delinquency	3	SOC 121
MTH222	Statistics^	3	MTH 123 or Proficiency
COM121	Effective Speaking	3	-
ENG221	Technical Report Writing	3	ENG 124
		<u>18</u>	
<u>Third Semester</u>			
CJS221	Criminology+	3	CJS 121
SWK225	Victimization & Crisis Intervention+	3	-
PHL122	Ethics	3	-
HIS 121	U.S. History I	3	
BIO 126	Science, Energy, and the Environment	4	
SOC123	Dynamics of the Family	3	-
		<u>19</u>	
<u>Fourth Semester</u>			
CJS222	Criminal Law in the U.S+	3	CJS121
CJS227	Criminal Justice Practicum & Seminar (210 Hours) +	3	CJS 221
BIO127	Human Biology	4	-
HIS 122	U.S. History II	3	
	Elective#	3	-
		<u>16</u>	
<b>TOTAL CREDITS</b>		<b>68</b>	

^ Based on SSC placement score

+ Requires a grade of "C" or better

# Select one elective;; CJS 124; ACC235;; ACC236; PSC121; SWK125



# EDUCATION AND HUMAN SERVICES ASSOCIATE OF ARTS

1300

## CRIMINAL JUSTICE-LAW ENFORCEMENT ACADEMY MAJOR\* Effective Summer 2012

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>English Composition: 6 credit hours minimum</b>				
ENG124	College Composition^	3	ENG 105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
<b>Social &amp; Behavioral Sciences: 9 credit hours minimum</b>				
PSY121	General Psychology^	3	IDS 102 or Proficiency	
SOC123	Dynamics of the Family	3		
SOC225	Cultural Diversity	3		
<b>Arts &amp; Humanities: 12 credit hours minimum</b>				
COM121	Effective Speaking	3		
PHL122	Ethics	3		
HIS121	U.S. History I	3		
HIS122	U.S. History II	3		
<b>Sciences &amp; Mathematics: 9-10 credits minimum (1 lab course required)</b>				
BIO126	Science, Energy, & the Environment (lab course)	4		
BIO127	Human Biology (lab course)	4		
MTH222	Statistics^	3	MTH123 or Proficiency	
<b>Total</b>		<b>38</b>		
Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CJS120	Introduction to Law Enforcement	3		
CJS122	Criminal Law and Procedures	3		
CJS123	Firearm Techniques	3		
CJS125	Report Writing	1		
CJS128	Human Relations I	3		
CJS230	Patrol Administration	3		
CJS231	Traffic Enforcement	3		
CJS232	Civil Disorders and Homeland Security	2		
CJS234	Criminal Investigation	3		
CJS236	Human Relations II	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
<b>Total</b>		<b>30</b>		
<b>Total Credit Hours</b>		<b>68</b>		

^Based on SSC placement scores

+Requires a grade of "C" or better

\*The courses listed in First Semester and Second Semester are the courses that a graduate of the OBR One Year Certificate in Law Enforcement Academy (36 credit hours) will receive toward their Associate of Arts Degree in Criminal Justice- Law Enforcement Academy. A total of 27 out of 36 credit hours will be applied to the Associate of Arts in Criminal Justice- Law Enforcement Academy degree. Note that not all courses taken in the OBR One Year Law Enforcement Academy will transfer for credit to the Associate of Arts in Criminal Justice – Law Enforcement Academy.

*Note: Students may complete general degree requirements first and then complete the Law Enforcement Academy during the second year.*

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Criminal Justice – Law Enforcement Academy Major\***

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
CJS120	Introduction to Law Enforcement	3	-
CJS122	Criminal Law and Procedures	3	-
CJS123	Firearm Techniques	3	-
CJS125	Report Writing	1	-
CJS128	Human Relations I	<u>3</u>	-
		13	
<u>Second Semester</u>			
CJS230	Patrol Administration	3	-
CJS231	Traffic Enforcement	3	-
CJS232	Civil Disorders and Homeland Security	2	-
CJS234	Criminal Investigation	3	-
CJS236	Human Relations II	<u>3</u>	-
		14	
<u>Third Semester</u>			
SOC123	Dynamics of the Family	3	-
PSY121	General Psychology^	3	IDS 102 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
COM121	Effective Speaking	<u>3</u>	-
		15	
<u>Fourth Semester</u>			
MTH222	Statistics^	3	MTH123 or Proficiency
HIS 121	U.S. History I	3	-
ENG221	Technical Report Writing	3	ENG124
BIO126	Science, Energy and the Environment	<u>4</u>	-
		13	
<u>Fifth Semester</u>			
BIO 127	Human Biology	4	-
HIS 122	U.S. History II	3	-
SOC225	Cultural Diversity	3	-
PHL122	Ethics	<u>3</u>	-
		13	

**TOTAL CREDITS 68 Credit Hours**

^Based on SSC placement scores

+Requires a grade of "C" or better

\*The courses listed in First Semester and Second Semester are the courses that a graduate of the OBR One Year Certificate in Law Enforcement Academy (36 credit hours) will receive toward their Associate of Arts Degree in Criminal Justice- Law Enforcement Academy. A total of 27 out of 36 credit hours will be applied to the Associate of Arts in Criminal Justice- Law Enforcement Academy degree. Note that not all courses taken in the OBR One Year Law Enforcement Academy will transfer for credit to the Associate of Arts in Criminal Justice – Law Enforcement Academy.

*Note: Students may complete general degree requirements first and then complete the Law Enforcement Academy during the second year.*



# EDUCATION AND HUMAN SERVICES

## OBR One Year Certificate

1303

### Criminal Justice/Homeland Defense

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CJS121	Introduction to Criminal Justice	3		
CJS124	Policing	3	CJS121	
CJS221	Criminology	3	CJS121	
CJS222	Criminal Law in the United States	3	CJS121	
HLS121	Introduction to Emergency Management	3		
HLS122	Intelligence and Homeland Security	3		
HLS123	Homeland Defense and Crisis Management	3		
HLS 221	Terrorism and Homeland Defense	3	HLS122	
TOTAL		24		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENG 124	College Composition^	3	ENG 105 or Test	
COM 121	Effective Speaking	3		
PSC 121	Political Science	3		
SOC 225	Cultural Diversity	3		
TOTAL		12		
TOTAL CREDIT HOURS		36		

^ Based upon SSC placement score

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Criminal Justice/Homeland Defense****OBR Certificate****Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
CJS 121	Introduction to Criminal Justice	3	-
ENG 124	College Composition^	3	ENG 105 or Test
HLS 121	Introduction to Emergency Management	3	-
HLS 122	Intelligence and Homeland Security	3	-
HLS 123	Homeland Defense and Crisis Management	3	-
COM 121	Effective Speaking	<u>3</u>	-
		18	
<u>Second Semester</u>			
PSC 121	Political Science	3	-
CJS 124	Policing	3	CJS 121
CJS 221	Criminology	3	CJS 121
CJS222	Criminal Law in the United States	3	CJS 121
HLS221	Terrorism and Homeland Defense	3	HLS122
SOC 225	Cultural Diversity	<u>3</u>	
		18	
<b>TOTAL CREDITS</b>		<b>36</b>	

^ Based upon SSC placement score





# EDUCATION AND HUMAN SERVICES

## One-Year Certificate

1302

### Law Enforcement Academy

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CJS120	Introduction to Law Enforcement	3		
CJS122	Criminal Law and Procedures	3		
CJS123	Firearm Techniques	3		
CJS 125	Report Writing	1		
CJS126	Defensive Driving	2		
CJS127	Self-Defense I	3		
CJS128	Human Relations I	3		
CJS230	Patrol Administration	3		
CJS 231	Traffic Enforcement	3		
CJS232	Civil Disorders and Homeland Security	2		
CJS233	Standard First Aid	1		
CJS234	Criminal Investigation	3		
CJS235	Self-Defense II	3		
CJS 236	Human Relations II	3		
TOTAL		36		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
TOTAL		0		
TOTAL CREDIT HOURS		36		

Note: Stark State College Law Enforcement Academy One-Year Certificate is for individuals interested in pursuing a career in law enforcement. This is an intensive, two-semester program that meets Monday-Thursday nights, 5:30 p.m. – 9:30 p.m.; Saturdays from 8-5 p.m.; and approximately five Sundays, -8-5 p.m.

Background checks are completed and submitted to BCI and FBI prior to acceptance into the Law Enforcement Academy certificate program. Individuals who have been convicted of a felony, domestic violence, or drug convictions will not be eligible for the Law Enforcement Academy one-year certificate program. Application information is available through the Education and Human Services division.

Student must enroll in all courses concurrently as identified for each semester. All instructors are certified by the Ohio Peace Officer Training Commission. Individuals who successfully complete the Law Enforcement Academy certificate program and pass the practical exercises are eligible to take the state (Ohio Basic Peace Officer Certification) examination.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**One-Year Certificate**  
**Law Enforcement Academy**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
CJS120	Introduction to Law Enforcement	3	-
CJS122	Criminal Law and Procedures	3	-
CJS123	Firearm Techniques	3	-
CJS125	Report Writing	1	-
CJS126	Defensive Driving	2	-
CJS127	Self-Defense I	3	-
CJS128	Human Relations I	<u>3</u>	
		18	
<u>Second Semester</u>			
CJS230	Patrol Administration	3	-
CJS231	Traffic Enforcement	3	-
CJS232	Civil Disorders and Homeland Security	2	-
CJS233	Standard First Aid	1	-
CJS234	Criminal Investigation	3	-
CJS235	Self-Defense II	3	-
CJS236	Human Relation II	<u>3</u>	-
		18	
<b>TOTAL CREDITS</b>		<b>36</b>	

Note: Stark State College Law Enforcement Academy One-Year Certificate is for individuals interested in pursuing a career in law enforcement. This is an intensive, two-semester program that meets Monday-Thursday nights, 5:30 p.m. – 9:30 p.m.; Saturdays from 8-5 p.m.; and approximately five Sundays, -8-5 p.m.

Background checks are completed and submitted to BCI and FBI prior to acceptance into the Law Enforcement Academy certificate program. Individuals who have been convicted of a felony, domestic violence, or drug convictions will not be eligible for the Law Enforcement Academy one-year certificate program. Application information is available through the Education and Human Services division.

Student must enroll in all courses concurrently as identified for each semester. All instructors are certified by the Ohio Peace Office Training Commission. Individuals who successfully complete the Law Enforcement Academy certificate program and pass the practical exercises are eligible to take the state (Ohio Basic Peace Officer Certification) examination.



# EDUCATION AND HUMAN SERVICES

## ASSOCIATE OF APPLIED SCIENCE

1000

### HUMAN AND SOCIAL SERVICE

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SWK121	Introduction to Social Welfare+	3		
SWK124	Methods in Practice I+	3	SWK121	
SWK130	Methods in Practice II+	3	SWK124	
SWK125	Substance Abuse	3		
SWK126	Human Behavior in the Social Environment^	3		
SWK127	Group Processes+	3		
GER121	Introduction to Gerontology	3		
SWK224	Poverty in the U.S.+	3	SWK121 or SOC121	
SWK225	Victimization and Crisis Intervention	3		
SWK231	HSS Practicum & Seminar	3	SWK224 and SWK126	
	Elective#	3		
	Elective#	3		
	<b>Total</b>	<b>36</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SOC123	Dynamics of the Family	3		
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	ENG105 or Proficiency	
COM121	Effective Speaking	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
BIO127	Human Biology	4		
	Total	31		
<b>TOTAL CREDIT HOURS</b>		<b>67</b>		

+ Requires a grade of "C" or better

^ Based on SSC placement score

# *Technical Electives* –GER 122, SWK 226, SWK230

**Note:** Students who successfully complete GER 122 and SWK230 as their technical electives, or in addition to their technical electives, may apply for the gerontology option and/or certificate of competency.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Human and Social Service**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Prerequisites
SWK121	Introduction to Social Welfare+	3	
ENG124	College Composition^	3	ENG105 or Proficiency
SOC123	Dynamics of the Family	3	
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
		<u>15</u>	
<u>Second Semester</u>			
SWK124	Methods in Practice I+	3	SWK121
SWK224	Poverty in the U.S. +	3	SWK121 or SOC121
PSY121	General Psychology^	3	IDS102 or Proficiency
SOC225	Cultural Diversity +	3	
BIO127	Human Biology	4	
	Elective#	<u>3</u>	
		19	
<u>Third Semester</u>			
SWK130	Methods in Practice II+	3	SWK124
SWK126	Human Behavior and the Social Environment^	3	
MTH222	Statistics^	3	MTH123 or Proficiency
SWK125	Substance Abuse	3	
SWK225	Victimization and Crisis Intervention	3	
PSC121	Political Science^	<u>3</u>	
		18	
<u>Fourth Semester</u>			
BUS122	Basic Economics^	3	IDS102 or Proficiency
SWK231	HSS Social Service Practicum/Seminar	3	
GER121	Introduction to Gerontology	3	
SWK127	Group Processes +	3	
	Elective#	<u>3</u>	
		15	
	<b>TOTAL CREDITS</b>	<b>67</b>	

+ Requires a grade of "C" or better

^ Based on SSC placement score

# *Technical Electives* –GER 122, SWK 226, SWK230

**Note:** Students who successfully complete GER 122 and SWK230 as their technical electives, or in addition to their technical electives, may apply for the gerontology option and/or certificate of competency.



# EDUCATION AND HUMAN SERVICES

## ASSOCIATE OF APPLIED SCIENCE

1004

### HUMAN AND SOCIAL SERVICES – CHEMICAL DEPENDENCY MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SWK121	Introduction to Social Welfare+	3		
CDC121	Chemical Dependency: Assessment and Treatment Planning +	3	SWK125	
CDC122	Fundamentals of Chemical Dependency Practice I+	3	SWK125	
CDC222	Fundamentals of Chemical Dependency Practice II+	3	CDC122	
SWK125	Substance Abuse+	3		
SWK126	Human Behavior in the Social Environment+	3		
SWK127	Group Processes+	3		
CDC221	Chemical Dependency and the Family+	3	SWK125	
SWK224	Poverty in the U.S. +	3	SWK121 or SOC121	
SWK225	Victim and Crisis Intervention	3		
SWK231	HSS Practicum /Seminar+	3	SWK126 and SWK224	
CDC223	Chemical Dependency and Prevention+	1	SWK125	
CDC224	Chemical Dependency and Ethics+	1	SWK125	
	<b>Total</b>	<b>35</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
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	ENG105 or Proficiency	
COM121	Effective Speaking	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
BIO127	Human Biology	4		
	<b>Total</b>	<b>31</b>		
	<b>Total Credit Hours</b>	<b>66</b>		

+ Requires a grade of "C" or better

^ Based on SSC placement score

Reviewed 3/2012  
Rev. 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**HUMAN AND SOCIAL SERVICES – CHEMICAL DEPENDENCY MAJOR**

*Effective Summer 2012*

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisites</u>
SWK121	Introduction to Social Welfare+	3	
ENG124	College Composition^	3	ENG105 or Proficiency
SOC121	Sociology	3	IDS102 or Proficiency
COM121	Effective Speaking	3	
SWK125	Substance Abuse+	<u>3</u>	
		15	
<u>Second Semester</u>			
CDC121	Chemical Dependency: Assessment and Treatment Planning+	3	SWK125
SWK224	Poverty in the U.S. +	3	SOC121 or SWK 121
PSY121	General Psychology^	3	IDS102 or Proficiency
SOC225	Cultural Diversity +	3	
CDC122	Fundamentals of Chemical Dependency Practice I+	3	SWK125
SWK225	Victim and Crisis Intervention	<u>3</u>	
		18	
<u>Third Semester</u>			
CDC222	Fundamentals of Chemical Dependency Practice II+	3	CDC122
SWK126	Human Behavior and the Social Environment+	3	
MTH222	Statistics^	3	MTH123 or Proficiency
CDC221	Chemical Dependency and Family+	3	SWK125
CDC223	Chemical Dependency and Prevention+	1	SWK125
CDC224	Chemical Dependency and Ethics+	1	SWK125
PSC121	Political Science	<u>3</u>	
		17	
<u>Fourth Semester</u>			
BUS122	Basic Economics^	3	IDS102 or Proficiency
SWK231	HSS Social Service Practicum/Seminar +	3	SWK126 and SWK224
SWK127	Group Processes +	3	
BIO127	Human Biology	4	
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		16	
	<b>TOTAL CREDITS</b>	<b>66</b>	

+ Requires a grade of "C" or better

^ Based on SSC placement score



# EDUCATION AND HUMAN SERVICES

## ASSOCIATE OF APPLIED SCIENCE

1003

### HUMAN AND SOCIAL SERVICES – GERONTOLOGY MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SWK121	Introduction to Social Welfare+	3		
SWK124	Methods in Practice I+	3	SWK121	
SWK130	Methods in Practice II+	3	SWK124	
SWK125	Substance Abuse	3		
SWK126	Human Behavior in the Social Environment+	3		
SWK127	Group Processes+	3		
GER121	Introduction to Gerontology	3		
SWK224	Poverty in the U.S.+	3	SWK121 or SOC121	
SWK225	Victim and Crisis Intervention	3		
SWK231	HSS Practicum /Seminar+	3	SWK126 and SWK224	
SWK230	Social Services for the Elderly+	3		
GER122	Psychosocial Aspects of Aging+	3		
	<b>Total</b>	<b>36</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SOC123	Dynamics of the Family	3		
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	ENG105 or Proficiency	
COM121	Effective Speaking	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
BIO127	Human Biology	4		
	<b>Total</b>	<b>31</b>		
	<b>Total Credit Hours</b>	<b>67</b>		

+ Requires a grade of "C" or better

^ Based on SSC placement score

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**HUMAN AND SOCIAL SERVICES – GERONTOLOGY MAJOR**  
***Effective Summer 2012***

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisites</u>
SWK121	Introduction to Social Welfare+	3	
ENG124	College Composition^	3	ENG105 or Proficiency
SOC123	Dynamics of the Family	3	
COM121	Effective Speaking	3	
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		15	
<u>Second Semester</u>			
GER121	Introduction to Gerontology	3	
SWK224	Poverty in the U.S. +	3	SOC121 or SWK121
PSY121	General Psychology^	3	IDS102 or Proficiency
SOC225	Cultural Diversity +	3	
SWK124	Methods in Practice I+	3	SWK121
SWK225	Victimization and Crisis Intervention	<u>3</u>	
		18	
<u>Third Semester</u>			
SWK130	Methods in Practice II+	3	SWK124
SWK126	Human Behavior and the Social Environment+	3	
MTH222	Statistics^	3	MTH123 or Proficiency
SWK125	Substance Abuse	3	
GER122	Psychosocial Aspects of Aging+	3	
PSC121	Political Science	<u>3</u>	
		18	
<u>Fourth Semester</u>			
BUS122	Basic Economics^	3	IDS102 or Proficiency
SWK231	HSS Social Service Practicum/Seminar +	3	SWK126 and SWK224
SWK230	Social Service for the Elderly+	3	
SWK127	Group Processes +	3	
BIO127	Human Biology	<u>4</u>	
		16	
<b>TOTAL CREDITS</b>		<b>67</b>	

+ Requires a grade of "C" or better

^ Based on SSC placement score





# EDUCATION AND HUMAN SERVICES

## ASSOCIATE OF APPLIED SCIENCE

1320

### PARALEGAL STUDIES

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PLS121	Introduction to Paralegal Studies^	3	ENG105 or Proficiency	
PLS122	Civil Litigation	3	PLS121	
PLS123	Legal Ethics	3	PLS121	
PLS221	Torts and Personal Injury Law	3	PLS122	
PLS222	Family Law	3	PLS121	
PLS223	Real Estate Law	3	PLS122	
PLS224	Criminal Law and Procedures for the Paralegal	3	PLS121	
PLS227	Paralegal Studies Practicum and Seminar	3	PLS221	
AOT130	Comm and Transcript Skills	3		
AOT235	Legal Research and Writing	3		
AOT239	Legal Transcription	3	AOT129 (co-), AOT130(pre-)	
AOT224	Legal Office Procedures	3	AOT121 and AOT130	
AOT237	Legal Office Applications	3	AOT224 and AOT239	
	<b>Total</b>	<b>39</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC123	Dynamics of the Family	3		
SOC225	Cultural Diversity	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
COM121	Effective Speaking	3		
IRT131	Legal Terminology	3		
BIO126	Science, Energy and the Environment	4		
AOT121	Keyboarding/Formatting	3		
AOT129	Keyboarding/Skillbuilding	1	AOT121	
	<b>Total</b>	<b>32</b>		
<b>Total Credit Hours</b>		<b>71</b>		

^ Based on SSC placement score

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Paralegal Studies**  
Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
PLS121	Introduction to Paralegal Studies^	3	ENG105 or Proficiency
IRT131	Legal Terminology	3	
ENG124	College Composition ^	3	ENG105 or Proficiency
SOC123	Dynamics of the Family	3	
AOT121	Keyboarding/Formatting	3	
ITD122	Computer Applications for Professionals	<u>3</u>	ITD100 or Proficiency
		18	
<u>Second Semester</u>			
PLS122	Civil Litigation	3	PLS121
PLS123	Legal Ethics	3	PLS121
AOT129	Keyboarding/Skillbuilding	1	AOT121
AOT130	Comm and Transcript Skills	3	
AOT235	Legal Research and Writing	3	
BIO126	Science, Energy, and the Environment	<u>4</u>	
		17	
<u>Third Semester</u>			
SOC225	Cultural Diversity	3	
AOT224	Legal Office Procedures	3	AOT121 and AOT130
AOT239	Legal Transcription	3	AOT129 (co-), AOT130(pre-)
PLS221	Torts and Personal Injury Law	3	PLS122
PLS222	Family Law	3	PLS121
COM121	Effective Speaking	<u>3</u>	
		18	
<u>Fourth Semester</u>			
AOT237	Legal Office Applications	3	AOT224and AOT239
PLS224	Criminal Law and Procedures for the Paralegal	3	PLS121
PLS223	Real Estate Law	3	PLS122
MTH222	Statistics^	3	MTH123 or Proficiency
PSY121	General Psychology^	3	IDS102 or Proficiency
PLS227	Paralegal Studies Practicum and Seminar	<u>3</u>	PLS221
		18	
<b>TOTAL CREDITS</b>		<b>71</b>	

^ Based on SSC placement score



# ENGINEERING TECHNOLOGY DIVISION

## ASSOCIATE OF APPLIED SCIENCE

4300

### APPLIED INDUSTRIAL TECHNOLOGY

Effective Summer 2012

TECHNICAL Course Number	Course Title			Credits	Pre- and Co-Requisites	Completed Sem./Year	
MST121	Blueprint Reading			2	-		
MST134 <sup>+</sup>	Hydraulic & Pneumatic Systems ^			6	MTH101 or Proficiency		
MST221	Mechanical Drive Components			3	-		
EST130	Electrical Circuits and Devices^			4	MTH101 or Proficiency		
IET228	Introduction to Robotics			2	-		
MET123	Material Science			2	-		
MET225	Manufacturing Processes			3	-		
Select at least 13 credit hours (typically 3 to 4 classes) from the following TECHNICAL ELECTIVES:							
TECHNICAL ELECTIVES Course Number	Course Title	Credits	Pre- and Co- Requisites	TECHNICAL ELECTIVES Course Number	Course Title	Credits	Pre- and Co- Requisites
AIT122	Machine Tools	3		MST126	Pipefitting Principles & Applications	4	
AIT123	Advanced Machine Tools	4		MST127	Principles of Welding	3	
IET223	CNC	4		MST128	Welding Lab	3	Co-MST127
AIT221	Advanced CNC Programming	3	IET223	MST131	Statistical Process Control Charts^	2	MTH101 or Proficiency
AIT124	Principles of Rigging	2		MST133	Press Working Fundamentals	2	
AIT125	Commercial Plumbing	3		MST225	DC Crane Control	1	
AIT126	Industrial Electrical Applications and Safety	2		AIT137	CAD/CAM	4	AIT122 and IET223
AIT135	Industrial Robotics	4	IET228	AIT225	Advanced CAD/CAM	4	AIT137
IET270	Dimensional Metrology & Inspection I^	3	MTH101 or Proficiency	AIT130	Structural/Maintenance Welding	3	
DET125	Basic AutoCAD	3		AIT134	Predictive & Preventative Main. I	3	MST221 and MST125
MST136	3G Cert. Preparatory	2	MST127 and MST128	AIT222	Predictive & Preventative Main. II	3	
MST137	6G Cert. Preparatory	5	MST127 and MST128	HVC124	Mobile Cab Climate Control	2	
MST138	Preparatory Gas Tungsten Arc Welding	5	MST127 and MST128	AET122	Analysis/Appl. Of Sustain Alter. Energy	3	AET121
MST139	Gas Tungsten Arc Welding Titanium/Stainless Steel	3	MST138	AET123	Sustainable/Alternative Energy Systems	3	AET122
AIT223	Anal/App of Wind Turb Engy	3	AIT136	AET124	Sustainable/Alternative Energy Project	3	AET123
AIT224	Wind Turbine Energy Systems	3	AIT223	AIT131	Electrical Applications and Safety	2	
MST124	Furnace Combust Principles	1		AIT133	Advanced Electrical Apps and Safety	2	AIT131
MST135	Plumb & Pipe Code Principles	3		EST133	Digital Logic Fundamentals	4	EST132
MST125	Basic Pumps	3		EST134	Programmable Controller Fundamentals	4	EST133
Subtotal (from Technical Courses & Technical Electives)						35	

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	IDS101 or Proficiency	
PHY121	Physics I	4	Co-MTH125 and Co-MTH128	
MTH125	College Algebra ^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
ENG124	College Composition ^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
IET121	Industrial Management Concepts	2	-	
ETD121	Engineering Technology Seminar	1	-	
AET121	Sustainable/Alternative Energy Sources	3	-	
	Select one (1) Arts or Humanities elective from the list below.*	3	-	
TOTAL		30		
TOTAL CREDIT HOURS		65		

^Based on SSC placement scores

\*Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

+Also can be taken as two 8-week courses: MST122 Hydraulic & Pneumatic Principles and MST123 Hydraulic & Pneumatic Applications

Reviewed 3/2012

Revised 2/2012

## 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 full-time associate degree students who plan to finish in two years.

## **APPLIED INDUSTRIAL TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
MST121	Blueprint Reading	2	–
ETD121	Engineering Technology Seminar	1	–
MTH125	College Algebra^	4	MTH123 or Proficiency
MTH128	Trigonometry	<u>1</u>	Co- MTH125
Credits		14	
<u>Second Semester</u>			
MST134	Hydraulic & Pneumatic Systems <sup>+</sup>	6	MTH101 or Proficiency
EST130	Electrical Circuits and Devices^	4	MTH101 or Proficiency
IET121	Industrial Management Concepts	2	–
MET123	Material Science	<u>2</u>	–
Credits		14	
<u>Third Semester</u>			
ENG221	Technical Report Writing	3	ENG124
PHY121	Physics I	4	Co-MTH125, Co-MTH128
COM123	Small Group Communication	3	ENG124
IET228	Introduction to Robotics	2	–
MET225	Manufacturing Processes	3	–
Credits		15	
<u>Fourth Semester</u>			
MST221	Mechanical Drive Components	3	
	Arts/Humanities Elective*	3	–
	Remainder of the specified Technical Electives**	13	--
AET121	Sustainable/Alternative Energy Sources	3	–
		22	
Total Credits		65	

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\*\* AIT122, AIT123, IET223, AIT221, AIT124, AIT125, AIT126, AIT135, IET270, DET125, MST136, MST137, MST138, MST139, MST124, MST135, MST125, MST126, MST127, MST128, MST131, MST133, MST225, AIT137, AIT225, AIT130, AIT134, AIT222, HVC124, AET122, AET123, AET124, AIT131, AIT133, EST133, EST134

+ Also can be taken as two 8-week courses: MST122 Hydraulic & Pneumatic Principles and MST123 Hydraulic & Pneumatic Applications

Reviewed 3/2012

Revised 2/2012



# ENGINEERING TECHNOLOGY ONE-YEAR CERTIFICATE PROGRAM

## CNC ONE-YEAR TECHNICAL CERTIFICATE

Effective Summer 2012

Technical Course Number	Course Title	Course Title	Pre-and Co-Requisites	Completed Sem./Year
AIT122	Machine Tools	3	-	
AIT123	Advanced Machine Tools	4	AIT122	
IET223	CNC Programming	4	-	
AIT221	Advanced CNC Programming	3	IET123 or ARL121 or ARL122	
DET121 or MST121	Engineering Drawing or Blueprint Reading	3 2	-	
DET125	Basic AutoCAD	3		
IET270	Dimensional Metrology & Inspection I	3	MTH101 or Proficiency	
AIT137	CAD/CAM	4	AIT122, IET223	
TOTAL		27(26)		
Basic/Related Course Number	Course Title	Credits	Pre-and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MET123	Material Science	2	-	
MTH128	Trigonometry	1	Co-MTH125	
MTH125	College Algebra ^	4	MTH123 or Proficiency	
TOTAL		10		
<b>TOTAL CREDIT HOURS</b>		<b>37(36)</b>		

^Based on SSC placement scores

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**CNC ONE-YEAR TECHNICAL CERTIFICATE**

Effective Summer 2012

<u>Semester I</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
MTH125	College Algebra	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
AIT122	Machine Tools	3	-
IET270	Dimensional Metrology & Inspection I	3	MTH101 or Proficiency
DET121 <u>or</u> MST121	Engineering Drawing <u>or</u> Blueprint Reading	3(2)	-
	Total	14(13)	
Semester II			
DET125	Basic AutoCAD	3	-
AIT123	Advanced Machine Tools	4	-
IET223	CNC Programming	4	-
ITD122	Computer Applications for Professionals	3	ITD100 or Proficiency
	Total	14	
Summer			
AIT221	Advanced CNC Programming	3	IET123 or ARL121 or ARL122
AIT137	CAD/CAM	4	AIT122 and IET223
MET123	Material Science	2	-
	Total	9	
	<b>TOTAL CREDITS</b>	<b>37(36)</b>	

^Based on SSC placement scores

Reviewed 3/2012  
Revised 2/2012



# ENGINEERING TECHNOLOGY ONE-YEAR CERTIFICATE PROGRAM

4309

## WELDING TECHNOLOGY **ONE-YEAR TECHNICAL CERTIFICATE** Effective Summer 2012

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 Lab	3	Co-MST127	
MST136	3G Welding Certification Exam Preparatory	2	MST127, MST128	
MST137	6G Welding Certification Exam Preparatory	5	MST127, MST128	
MST138	Preparatory Gas Tungsten Arc Welding-Titanium/Stainless Steel	5	MST127, 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
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	MTH125 or Proficiency	
AIT122	Machine Tools	3	-	
MET123	Material Science	2	-	
TOTAL		10		
TOTAL CREDIT HOURS		33		

^based on SSC placement scores

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

**WELDING ONE-YEAR TECHNICAL CERTIFICATE****Effective Summer 2012**

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
MST121	Blueprint Reading	2	-
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency
MST127	Principles of Welding	3	Co-MST128
MST128	Welding Lab	3	Co-MST127
AIT122	Machine Tools	<u>3</u>	-
TOTAL		15	
<u>Second Semester</u>			
MTH128	Trigonometry	1	MTH125 or Proficiency
MST136	3G Welding Certification Preparatory	2	MST127, MST128
MST137	6G Welding Certification Preparatory	5	MST127, MST128
MST138	Preparatory Gas Tungsten Arc Welding	<u>5</u>	MST127, MST128
TOTAL		13	
<u>Third Semester</u>			
MET123	Material Science	2	-
MST139	Gas Tungsten Arc Welding-Titanium/Stainless Steel	<u>3</u>	MST138
		5	
<b>TOTAL CREDIT HOURS</b>		33	

<sup>^</sup>based on SSC placement scores





# ENGINEERING TECHNOLOGY

## ASSOCIATE OF TECHNICAL STUDIES

4600

### PRECISION MACHINING

#### ARIEL CORPORATION

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co- Requisites	Completed Sem./Year
AIT122	Machine Tools	3	-	
AIT123	Advanced Machine Tools	4	-	
ARL129	Fundamentals of CNC Operations	3	-	
ARL121	CNC Lathe Operations	3	-	
*ARL122 / ARL123	CNC Mill Operations <u>or</u> CNC Grinding Operations	3	-	
ARL222	Advanced CNC Operations	3	-	
MST121	Blueprint Reading	2	-	
ARL125	Metallurgical Inspection	3	-	
ARL126	Metallurgy for Ferrous Materials	3	-	
ARL224	Master Cam Operations	3	-	
ARL128	Precision Grinding	3	-	
AIT221	Advanced CNC Lathe/Mill	3	IET223 or ARL121 or ARL122	
TOTAL		36		
NON-TECH Course Number	Course Title	Credits	Pre- and Co- Requisites	Completed Sem./Year
ARL127	Industrial Mathematics	3	-	
ARL221	Industrial Layout and Trigonometry	3	-	
ARL124	Basic Metrology	3	-	
DET125	Basic AutoCAD	3	-	
ECA122	Computer Applications for Technical Professionals	3	-	
ARL223	Manufacturing Cell Leadership & Communication	3	-	
ENG124	English Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
PSY124 or SWK127	Psychology of Work or Group Processes	3	-	
SOC121	Sociology^	3	IDS102 or Proficiency	
TOTAL		15/16		
TOTAL		30		
TOTAL CREDIT HOURS		66		

^ Based on SSC placement scores

\* Note: Take course not taken in the One-Year Certificate.



# ENGINEERING DIVISION ONE-YEAR TECHNICAL CERTIFICATE

## PRECISION MACHINING

### ARIEL CORPORATION

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co- Requisites	Completed Sem./Year
AIT122	Machine Tools	3	-	
AIT123	Advanced Machine Tools	4	-	
ARL129	Fundamentals of CNC Operations	3	-	
ARL121 or ARL122 or ARL123	CNC Lathe Operations <u>or</u> CNC Mill Operations <u>or</u> CNC Grinding Operations	3	-	
ARL222	Advanced CNC Operations	3	-	
MST121	Blueprint Reading	2	-	
ARL125	Metallurgical Inspection	3	-	
ARL124	Basic Metrology	3	-	
<b>TOTAL</b>		<b>24</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co- Requisites	Completed Sem./Year
ARL223	Manufacturing Cell Leadership & Communication	3	-	
ARL126	Metallurgy for Ferrous Materials	3	-	
ARL127	Industrial Mathematics	3	-	
ARL221	Industrial Layout and Trigonometry	3	ARL127	
<b>TOTAL</b>		<b>12</b>		
<b>TOTAL</b>		<b>36</b>		

### PRECISION MACHINING ONE-YEAR TECHNICAL CERTIFICATE

Semester I		Credit Hours	Prerequisite
ARL127	Industrial Mathematics	3	-
AIT122	Machine Tools	3	-
ARL124	Basic Metrology	3	-
MST121	Blueprint Reading	2	-
ARL129	Fundamentals of CNC Operations	3	-
ARL125	Metallurgical Inspection	<u>3</u>	-
	<b>Total</b>	<b>17</b>	
Semester II			
ARL221	Industrial Layout and Trigonometry	3	ARL127
AIT123	Advanced Machine Tools	4	-
ARL126	Metallurgy for Ferrous Materials	3	-
ARL121/ARL122/ARL123	CNC Lathe Operations or CNC Mill Operations or CNC Grinding Operations	<u>3</u>	-
	<b>Total</b>	<b>13</b>	
Semester III			
ARL223	Manufacturing Cell Leadership & Communication	3	-
ARL222	Advanced CNC Operations	<u>3</u>	
	<b>Total</b>	<b>6</b>	
<b>TOTAL CREDITS</b>		<b>36</b>	

Reviewed 3/2012  
Revised 2/2012



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### CIVIL ENGINEERING TECHNOLOGY

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET121	Building Materials & Construction Methods	3	-	
CET122	Architectural Drafting I	3	-	
DET125	Basic AutoCAD	3		
CET125	Soil Mechanics	3	MTH125, Co-MET124	
CET222	Concrete & Asphalt Testing	3	MTH125, CET121	
CET223	Structural Design I	3	MET124	
CET236	Global Positioning Systems	3	CET227	
CET226	Estimating	3	CET121, ITD122, MTH125 & (CET122 or DET125 or CET237)	
CET227	Surveying I	3	Co-MTH125	
CET228	Surveying II	3	CET227	
CET232	Land Planning & Design	3	CET227 and (CET122 or CET124 or DET125)	
CET238	Tech Project – Civil Engineering	3	CET223 or CET228	
ETD121	Engineering Student Success Seminar	1	–	
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125	
<b>TOTAL</b>		<b>41</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM123	Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH223	Analytical Geometry –Calculus I	4	MTH126 or Proficiency	
PHY121	Physics I	4	Co-MTH125 and MTH128	
	*Select one (1) Arts/Humanities elective from list below.	3	-	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>73</b>		

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**CIVIL ENGINEERING TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition ^	3	ENG105 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
CET121	Building Materials & Construction Methods	3	-
CET122	Architectural Drafting I	3	-
ETD121	Engineering Student Success Seminar	1	-
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		18	
<u>Second Semester</u>			
MTH126	Pre-Calculus	4	MTH125 or Proficiency
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125
CET125	Soil Mechanics	3	MTH125, Co-MET124
DET125	Basic AutoCAD	3	
PHY121	Physics I	<u>4</u>	MTH125 and MTH128
		18	
<u>Third Semester</u>			
ENG221	Technical Report Writing	3	ENG124
MTH223	Analytical Geometry - Calculus I	4	MTH126 or Proficiency
CET227	Surveying I	3	Co-MTH125
CET223	Structural Design I	3	MET124
CET222	Concrete & Asphalt Testing	3	MTH125, CET121
CET232	Land Planning & Design	<u>3</u>	CET227 and(CET122 or CET124 or DET125)
		19	
<u>Fourth Semester</u>			
COM123	Small Group Communication	3	ENG124
CET226	Estimating	3	CET121, ITD122, MTH125& (CET122 or DET125 or CET237)
CET238	Tech Project – Civil Engineering	3	CET223 OR CET228
CET236	Global Positioning Systems	3	CET227
CET228	Surveying II	3	CET227
	Arts/Humanities Elective*	<u>3</u>	-
		18	
<b>TOTAL CREDITS</b>		<b>73</b>	

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012  
Revised 2/2012



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

4201

### CIVIL ENGINEERING TECHNOLOGY – ARCHITECTURAL MAJOR

#### Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET121	Building Materials & Construction Methods	3	-	
CET122	Architectural Drafting I	3	-	
CET123	Architectural Drafting II	3	Co-CET121, CET122	
CET223	Structural Design I	3	MET124	
CET225	Sustainable Building Service Systems	3	CET121	
CET226	Estimating	3	CET121, ITD122, MTH125 & (CET122 or DET125 or CET237)	
CET227	Surveying I	3	Co-MTH125	
CET232	Land Planning and Design	3	CET227 & (CET122 or CET124 or DET125)	
CET233	Architectural Design	3	CET122, CET123	
CET234	A/E CAD	2	CET121, CET122, DET125	
CET235	Construction Management, Job Cost & Safety	3	CET121 & ITD122	
DET125	Basic AutoCAD	3		
ETD121	Engineering Student Success Seminar	1	-	
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125	
<b>TOTAL</b>		<b>40</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH223	Analytical Geometry-Calculus I	4	MTH126 or Proficiency	
PHY121	Physics I	4	Co-MTH125 and Co-MTH128	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from the list below.*	3	-	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**CIVIL ENGINEERING TECHNOLOGY – ARCHITECTURAL MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
ENG124	College Composition^	3	ENG105 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
CET121	Building Materials & Construction Methods	3	-
CET122	Architectural Drafting I	3	-
ETD121	Engineering Technology Seminar	1	-
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		18	
<u>Second Semester</u>			
MTH126	Pre-Calculus	4	MTH125 or Proficiency
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125
CET123	Architectural Drafting II	3	Co-CET121, CET122
DET125	Basic AutoCAD	3	
PHY121	Physics I	<u>4</u>	Co-MTH125 and Co-MTH128
		18	
<u>Third Semester</u>			
ENG221	Technical Report Writing	3	ENG124
MTH223	Analytical Geometry – Calculus I	4	MTH126 or Proficiency
CET227	Surveying I	3	Co-MTH125
CET223	Structural Design I	3	MET124
CET232	Land Planning & Design	3	CET227 & (CET122 or CET124 or EET25)
CET235	Construction Management, Job Cost & Safety	<u>3</u>	CET121 & ITD122
		19	
<u>Fourth Semester</u>			
COM123	Small Group Communication	3	ENG124
CET226	Estimating	3	CET121, ITD122, MTH125 & (CET122 or DET125 or CET237)
CET225	Sustainable Building Service Systems	3	CET121, MTH125
CET233	Architectural Design	3	CET121, CET123
CET234	A/E CAD	2	CET121, CET122, DET125
	Arts/Humanities Elective*	3	
		<u>17</u>	
	<b>TOTAL CREDITS</b>	72	

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### CIVIL ENGINEERING TECHNOLOGY- CONSTRUCTION MANAGEMENT MAJOR

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET121	Building Materials & Construction Methods	3	-	
CET237	Interpreting Construction Documents	2	-	
CET239	Building Code Applications	2	CET121, CET237 or CET122	
CET125 Or CET222	Soil Mechanics or Concrete & Asphalt Testing	3 3	MTH125, Co-MET124 CET121 and MTH125	
CET223	Structural Design I	3	MET124	
CET225	Sustainable Building Service Systems	3	CET121	
CET226	Estimating	3	CET121, ITD122, MTH125 & (CET122 or DET125 or CET237)	
CET227	Surveying I	3	Co-MTH125	
CET235	Construction Management, Job Cost & Safety	3	CET121 and ITD122	
CET236	Global Positioning System	3	CET227	
CET232	Land Planning & Design	3	CET227 & (CET122 or CET124 or DET125)	
DET125	Basic AutoCAD	3		
ETD121	Engineering Student Success Seminar	1	-	
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125	
<b>TOTAL</b>		<b>39</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH223	Analytical Geometry - Calculus I	4	MTH126 or Proficiency	
PHY121	Physics I	4	Co-MTH125 or Co-MTH128	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from the list below.*	3	-	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**CIVIL ENGINEERING TECHNOLOGY-CONSTRUCTION MANAGEMENT MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
ETD121	Engineering Student Success Seminar	1	-
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
CET121	Building Materials & Construction Methods	3	-
CET237	Interpreting Construction Documents	2	-
DET125	Basic AutoCAD	3	-
ITD122	Computer Applications for Professionals <sup>^</sup>	<u>3</u>	ITD100 or Proficiency
		17	
<u>Second Semester</u>			
MTH126	Pre-Calculus	4	MTH125 or Proficiency
MET124	Statics & Strength of Materials	4	Co-PHY121
CET125	Soil Mechanics	3	MTH125, Co-MET124
Or	or		
CET222	Concrete & Asphalt Testing	3	CET121 and MTH125
	Arts/Humanities/Social Science Elective	3	
PHY121	Physics I	<u>4</u>	Co-MTH125 and Co-MTH128
		18	
<u>Third Semester</u>			
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
MTH223	Analytical Geometry – Calculus I	4	MTH126 or Proficiency
CET227	Surveying I	3	Co-MTH125
CET223	Structural Design I	3	MET124
CET232	Land Planning & Design	3	CET227 & (CET122 or CET124 or DET125)
CET235	Construction Management, Job Cost & Safety	<u>3</u>	CET121 and ITD122
		19	
<u>Fourth Semester</u>			
ENG221	Technical Report Writing	3	ENG124
COM123	Small Group Communication	3	ENG124
CET225	Sustainable Building Service Systems	3	CET121
CET239	Building Code Applications	2	CET121, CET237, or CET122
CET226	Estimating	3	CET121, ITD122, MTH125 & (CET122 or DET125 or CET237)
CET236	Global Positioning System	<u>3</u>	CET227
		17	
<b>TOTAL CREDITS</b>		<b>71</b>	

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

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012

Revised 2/2012





# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### DESIGN ENGINEERING TECHNOLOGY

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DET121	Engineering Drawing	3	-	
DET122	Descriptive Geometry	3	DET121	
DET124	Working Drawings	3	DET121, Co-DET125	
DET125	Basic AutoCAD	3		
DET223	Kinematics	3	PHY121	
DET226	Geometric Dimensioning & Tolerancing	2	DET124	
MET226	Technical Project - Mechanical and Design	2	ETD121 (DET125 or DET131)	
ETD121	Engineering Student Success Seminar	1	-	
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125	
MET225/AIT122	Manufacturing Processes or Machine Tools	3	-	
MET228	Machine Design	4	MET124	
	Technical Electives: Customizing AutoCAD (DET126), Advanced AutoCAD (Inventor) (DET230), Pro Engineer (DET131)	6		
<b>TOTAL</b>		<b>37</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125	College Algebra ^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH223	Analytical Geometry – Calculus I	4	MTH126 or Proficiency	
PHY121	Physics I	4	Co-MTH125 and Co-MTH128	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from the list below.*	3	-	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>69</b>		

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**DESIGN ENGINEERING TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
DET121	Engineering Drawing	3	-
ENG124	College Composition^	3	ENG105 or Proficiency
ETD121	Engineering Student Success Seminar	1	-
MTH125	College Algebra^	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
ITD122	Computer Applications for Professionals	3	ITD100 or Proficiency
DET125	Basic AutoCAD	<u>3</u>	
		18	
<u>Second Semester</u>			
DET122	Descriptive Geometry	3	DET121
MET225/AIT122	Manufacturing Processes or Mach Design	3	-
MTH126	Pre-Calculus	4	MTH125 or Proficiency
PHY121	Physics I	4	MTH125 and MTH128
MET124	Statics & Strength of Materials	<u>4</u>	Co-PHY121 and MTH125
		18	
<u>Third Semester</u>			
DET226	Geometric Dimensioning & Tolerancing	2	DET124
COM123	Small Group Communication	3	ENG124
DET124	Working Drawings	3	DET121, Co-DET125
MTH223	Analytical Geometry – Calculus I	4	MTH126 or Proficiency
	Technical Elective **	3	
DET223	Kinematics	<u>3</u>	PHY121
		18	
<u>Fourth Semester</u>			
MET226	Technical Project - Mechanical and Design	2	ETD121, (DET125 or DET131)
MET228	Machine Design	4	MET124
ENG221	Technical Report Writing	3	ENG124
	Arts/Humanities Elective*	3	-
	Technical Elective **	<u>3</u>	
		15	
<b>TOTAL CREDITS</b>		<b>69</b>	

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\*\* DET126, DET230, DET131



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

4551  
4552

### **ELECTRIC POWER UTILITY TECHNOLOGY \*\***

**Line Worker Technician Major**

**Substation Technician Major**

**Effective Summer 2012**

Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Co-MTH125 and Co-MTH128	
IET121	Industrial Management Concepts	2	-	
EST129	Switchgear, Transformers & Controls	2	EET120	
EET226	Transmission & Distribution	3	EET122	
ETD202	Eng Tech Div - Independent Study	2	-	
EUT121/EUT123	Overhead Line Technology I/ Substation Technology I	6/6	-	
EUT122/EUT124	Overhead Line Technology II/ Substation Technology II	6/6	Overhead Line Technology I/ Substation Technology I	
EUT221/EUT224	Overhead Line Technology III/ Substation Technology III	6/6	Overhead Line Technology II/ Substation Technology II	
EUT222/EUT225	Overhead Line Technology IV/ Substation Technology IV	7/7	Overhead Line Technology III/ Substation Technology III	
EET122	AC Circuit Analysis	4	EET120	
<b>TOTAL</b>		<b>42</b>		
Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
PHY101	Principles of Physics^	4	MTH123 or Proficiency or IDS102 or Proficiency	
ACC130	Business Law & Ethics	3	-	
BUS122	Basic Economics^	3	IDS102 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select (1) Arts/Humanities from the list below	3	-	
<b>TOTAL</b>		<b>30</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

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

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ELECTRIC POWER UTILITY TECHNOLOGY \*\***

**Line Worker Technician Major**

**Substation Technician Major**

**Effective Summer 2012**

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
EUT121	Overhead Line Technology I or Substation Technology I (EUT123)	6	-
	Select (1) Arts/Humanities from the list below*	<u>3</u>	-
		15	
<u>Second Semester</u>			
MTH125	College Algebra^	4	MTH23 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
EET120	DC Circuit Analysis	4	Co-MTH125 and Co-MTH128
COM123	Small Group Communication	3	ENG124
EUT122	Overhead Line Technology II or Substation Technology II (EUT124)	<u>6</u>	Overhead Line Tech I/ Substation Technology I
		18	
<u>Third Semester</u>			
ETD202	Eng Tech Div - Independent Study	<u>2</u>	-
<u>Fourth Semester</u>			
PHY101	Principles of Physics^	4	MTH123 or Proficiency and IDS102 or Proficiency
BUS122	Basic Economics	3	IDS102 or Proficiency
EET122	AC Circuit Analysis	4	EET120
ACC130	Business Law & Ethics	3	-
EUT221	Overhead Line Technology III or Substation Technology III (EUT224)	<u>6</u>	Overhead Line Tech II/ Substation Technology II
		20	
<u>Fifth Semester</u>			
EET226	Transmission & Distribution	3	EET122
ENG221	Technical Report Writing	3	ENG124
IET121	Industrial Management Concepts	2	-
EST129	Switchgear, Transformers & Controls	2	EET120
EUT222	Overhead Line Technology IV or Substation Technology IV (EUT225)	7	Overhead Line Tech III/ Substation Technology III
		<u>17</u>	
<b>TOTAL CREDITS</b>		<b>72</b>	

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

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### ELECTRICAL ENGINEERING TECHNOLOGY

*Effective Summer 2012*

Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Co-MTH125, Co-MTH128	
EET122	AC Circuit Analysis	4	EET120	
EET123	Electronic Devices & Circuits	4	EET120 or EST130	
EET125	Circuit Manufacturing Techniques	1	EET120	
EET126	Electrical Machines	4	Co-EET122	
EET128	NEC & Electrical Systems Design	2	EET122	
EET226	Transmission & Distribution	3	EET122	
EET227	PLC's & Industrial Controls I	3	EET120 or EST130	
EET228	PLC's & Industrial Controls II	3	EET227	
EET232	Industrial Electronics	4	EET123	
EET233	Technical Project – Electrical	1	EET123, EET227	
DET125	Basic AutoCAD	3		
ETD121	Engineering Student Success Seminar	1	-	
<b>TOTAL</b>		<b>37</b>		
Non-Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
ECA127	Programming Logic and Problem Solving <sup>^</sup>	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA128	Visual Basic Programming	3	ECA127	
EET263	Industrial Sensors and Advanced Applications	2	EET120 or EST130	
PHY121	Physics I	4	Co-MTH125 and Co-MTH128	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH221	Concepts of Calculus	3	MTH126 or Proficiency	
	*Select one (1) Arts/Humanities elective from the list below.	3	None	
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>73</b>		

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

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ELECTRICAL ENGINEERING TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ECA127	Programming Logic and Problem Solving	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
EET120	DC Circuit Analysis	4	Co-MTH125, Co-MTH128
ETD121	Engineering Student Success Seminar	1	
ENG124	College Composition^	3	ENG105 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
MTH128	Trigonometry	<u>1</u>	Co-MTH125
		16	
<u>Second Semester</u>			
EET122	AC Circuit Analysis	4	EET120
EET123	Electronic Devices & Circuits	4	EET120 or EST130
EET126	Electrical Machines	4	Co-EET122
MTH126	Pre-Calculus	4	MTH125 or Proficiency
PHY121	Physics I	<u>4</u>	Co-MTH125 and Co- MTH128
		20	
<u>Third Semester</u>			
DET125	Basic AutoCAD	3	
EET128	NEC & Electrical Systems Design	2	EET122
COM123	Small Group Communication	3	ENG124
EET227	PLC's & Industrial Controls I	3	EET120 or EST130
MTH221/MTH223	Concepts of Calc or Analyt Geo – Calc I	3/4	MTH126 or Proficiency
ENG221	Technical Report Writing	3	ENG124
ECA128	Visual Basic Programming	<u>3</u>	ECA127
		20/21	
<u>Fourth Semester</u>			
EET226	Transmission & Distribution	3	EET122
EET228	PLC's & Industrial Controls II	3	EET227
EET232	Industrial Electronics	4	EET123
EET233	Technical Project – Electrical	1	EET123, EET227
	Arts/Humanities Elective*	3	
EET263	Industrial Sensors & Adv. Applications	2	EET120 or EST130
EET125	Circuit Manufacturing Techniques	<u>1</u>	EET120
		17	
<b>TOTAL CREDITS</b>		<b>73/74</b>	

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012  
Revised 2/2012



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### ELECTRICAL ENGINEERING TECHNOLOGY- ELECTRO-MECHANICAL MAJOR

*Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Co-MTH125, Co-MTH128	
EET122	AC Circuit Analysis	4	EET120	
EET123	Electronic Devices & Circuits	4	EET120 or EST130	
EET126	Electrical Machines	4	Co-EET122	
EET227	PLC's & Industrial Controls I	3	EET120 or EST130	
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125	
MET123	Material Science	2	-	
MET225	Manufacturing Processes	3	-	
MET222	Fluid Power	4	MET124	
MET227	Thermodynamics and Heat Transfer	3	MTH125, PHY121	
DET125	Basic AutoCAD	3		
ETD121	Engineering Student Success Seminar	1	-	
<b>TOTAL</b>		<b>39</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA127	Programming Logic and Problem Solving	3	(IDS101 or Proficiency) and (MTH101 or Proficiency or ECA120)	
EET263	Industrial Sensors and Advanced Applications	2	EET120 or EST130	
PHY121	Physics I	4	Co-MTH125 and Co-MTH128	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH221	Concepts of Calculus I	3	MTH126 or Proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from list below*	3	-	
<b>TOTAL</b>		<b>33</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

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

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ELECTRICAL ENGINEERING TECHNOLOGY – ELECTRO-MECHANICAL MAJOR**

Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
ECA127	Programming Logic and Problem Solving	3	(IDS101 or Proficiency) and (MTH101 or Proficiency or ECA120)
EET120	DC Circuit Analysis	4	Co-MTH125, Co-MTH128
ETD121	Engineering Student Success Seminar	1	-
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency
MTH128	Trigonometry	<u>1</u>	Co-MTH125
		16	
<u>Second Semester</u>			
EET122	AC Circuit Analysis	4	EET120
EET123	Electronic Devices & Circuits	4	EET120 or EST130
EET126	Electrical Machines	4	Co-EET122
MTH126	Pre-Calculus	4	MTH125 or Proficiency
PHY121	Physics I	<u>4</u>	Co-MTH125 and Co-MTH128
		20	
<u>Third Semester</u>			
MET123	Material Science	2	-
MET124	Statics & Strength of Materials	4	Co-PHY121
EET227	PLC's & Industrial Controls I	3	EET120 or EST130
MTH221/MTH223	Concepts of Calc or Analyt Geo – Calc I	3/4	MTH126 or Proficiency
ENG221	Technical Report Writing	3	ENG124
DET125	Basic AutoCAD	<u>3</u>	
		18/10	
<u>Fourth Semester</u>			
COM123	Small Group Communication	3	ENG124
MET222	Fluid Power	4	MET124
MET225	Manufacturing Processes	3	-
MET227	Thermodynamics & Heat Transfer	3	MTH125, PHY121
EET263	Industrial Sensors & Adv. Applications	2	EET120 or EST130
	Arts/Humanities elective*	<u>3</u>	-
		18	
<b>TOTAL CREDITS</b>		<b>72/73</b>	

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

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012

Revised 2/2012





# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### ELECTRICAL MAINTENANCE TECHNOLOGY

**Effective Summer 2012**

Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET120	DC Circuit Analysis	4	Co-MTH125, Co-MTH128	
EET122	AC Circuit Analysis	4	EET120	
EET123	Electronic Devices & Circuits	4	EET120 or EST130	
MST121	Blueprint Reading	2	-	
MST221	Mechanical Drive Components	3	-	
EST129	Switchgear, Transformers & Controls	2	EET120	
EET126	Electrical Machines	4	Co-EET122	
EET128	NEC & Electrical Systems Design	2	EET122	
EET227	PLC's & Industrial Controls I	3	EET120, EST130	
EET228	PLC's & Industrial Controls II	3	EET227	
ETD121	Engineering Technology Seminar	1	-	
EST221	Electrical/Electronic Troubleshooting	3	EET123	
EET125	Circuit Manufacturing Techniques	1	EET120	
	<i>Select 1 course from the following technical electives:**</i>			
EET232	Industrial Electronics	4	EET123	
EET244	Electronic Telecommunications	3	-	
IET228	Introduction To Robotics	2	-	
AIT135	Industrial Robotics	4	IET228	
<b>TOTAL</b>		<b>38/40</b>		
Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	IDS101 or Proficiency	
HVC121	HVAC Principles I	3		
MST134	Hydraulic and Pneumatic Systems^	6	MTH101 or Proficiency	
MTH125	College Algebra ^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
PHY121	Physics I	4	Co-MTH125 and Co-MTH128	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from the list below.*	3	-	
<b>TOTAL</b>		<b>33</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71/73</b>		

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\*\* EET232, EET244, IET228, AIT135

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

## ELECTRICAL MAINTENANCE TECHNOLOGY

**Effective Summer 2012**

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
EET120	DC Circuit Analysis	4	Co-MTH125, Co-MTH128
ETD121	Engineering Technology Seminar	1	-
MST134	Hydraulic & Pneumatic Systems^	6	MTH101 or Proficiency
MST121	Blueprint Reading	2	-
MTH125	College Algebra^	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
		18	
<u>Second Semester</u>			
EET125	Circuit Manufacturing Techniques	1	EET120
EET123	Electronic Devices & Circuits	4	EET120 or EST130
EET126	Electrical Machines	4	Co- EET122
PHY121	Physics I	4	Co-MTH125 and Co-MTH128
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
EET122	AC Circuit Analysis	4	EET120
		20	
<u>Third Semester</u>			
EET128	NEC & Electrical Systems Design	2	EET122
EET227	PLC's & Industrial Controls I	3	EET120 or EST130
MST221	Mechanical Drive Components	3	-
COM123	Small Group Communication	3	ENG124
EST129	Switchgear, Transformers & Controls	2	EET120
ENG124	College Composition^	3	ENG105 or Proficiency
		16	
<u>Fourth Semester</u>			
EET228	PLC's & Industrial Controls II	3	EET227
EST221	Electrical/Electronic Troubleshooting	3	EET123
ENG221	Technical Report Writing	3	ENG124
HVC121	HVAC Principles I	3	-
	Technical Elective**	2/4	-
	Arts/Humanities Elective*	3	-
		17/19	
<b>TOTAL CREDITS</b>		<b>71/73</b>	

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\*\* EET232, EET244, IET228, AIT135



# ENGINEERING TECHNOLOGY

## ONE-YEAR CERTIFICATE PROGRAM

4555

### **AUTOMATION & ROBOTICS TECHNOLOGY**

#### **ONE-YEAR TECHNICAL CERTIFICATE**

**Effective Summer 2012**

Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IET223	Computer Numerical Control	4	-	
IET228	Intro to Robotics	2	-	
ECA127	Programming Logic & Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
EST130	Electrical Circuits and Devices ^	4	MTH101 or Proficiency	
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122	
EET227	PLCs and Industrial Controls I	3	EST130 or EET120	
MST121	Blueprint Reading	2	-	
AIT135	Industrial Robotics	4	IET228	
TOTAL		25		

Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST221	Mechanical Drive Components	3	-	
MST134	Hydraulics & Pneumatics Sys. ^	6	MTH101 or Proficiency	
MTH101	Intro to Algebra^	3	MTH100 or Proficiency	
TOTAL		12		

TOTAL CREDIT HOURS		37
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^based upon SSC placement

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

**Automation/Robotics ONE-YEAR TECHNICAL CERTIFICATE****Effective Summer 2012**

<u>Summer</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
MTH101	Intro to Algebra^	3	MTH100 or Proficiency
MST221	Mechanical Drive Components	3	-
MST121	Blueprint Reading	2	-
ECA127	Programming Logic & Problem Solving^	<u>3</u>	(IDS101 or Proficiency) and (MTH101 or Proficiency)
	TOTAL	11	
<u>Semester I</u>			
IET228	Intro to Robotics	2	-
IET223	Computer Numerical Control	4	-
EST130	Electrical Circuits and Devices	<u>4</u>	MTH101 or Proficiency
	TOTAL	10	
<u>Semester II</u>			
AIT221	Advanced CNC Programming	3	IET223 or ARL121 or ARL122
EET227	PLCs and Industrial Controls I	3	EST130 or EET120
MST134	Hydraulic & Pneumatics Sys.^	6	MTH101 or Proficiency
AIT135	Industrial Robotics	<u>4</u>	IET228
	TOTAL	<u>16</u>	
	<b>TOTAL CREDIT HOURS</b>	<b>37</b>	

^Based upon SSC placement



# ENGINEERING TECHNOLOGY

## ONE-YEAR TECHNICAL CERTIFICATE

### PREDICTIVE & PREVENTIVE MAINTENANCE TECHNOLOGY

#### ONE-YEAR TECHNICAL CERTIFICATE

Effective Summer 2012

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 Application^	4	MTH101 or Proficiency	
MST134	Hydraulic & Pneumatic Systems^	6	MTH101 or Proficiency	
MST221	Mechanical Drive Components	3	-	
EST130	Electrical Circuits and Devices^	4	MTH101 or Proficiency	
AIT134	Predictive & Preventive Maintenance Technologies I	3	MST221 and MST125	
AIT222	Predictive & Preventive Maintenance Technologies II	3	AIT134	
TOTAL		28		
Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency )	
MTH125	College Algebra ^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
TOTAL		8		
TOTAL CREDIT HOURS		36		

^Based upon SSC placement

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

**Predictive & Preventive Maintenance TECHNICAL CERTIFICATE**  
**Effective Summer 2012**

<u>Semester I</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
MST121	Blueprint Reading	2	-
MST125	Basic Pumps	3	
MST221	Mechanical Drive Components	3	-
MTH125	College Algebra^	4	MTH123 or Proficiency
MST126	Pipefitting Principles & Applications^	4	MTH101 or Proficiency
	TOTAL	16	
<u>Semester II</u>			
MTH128	Trigonometry	1	Co-MTH125
AIT134	Predictive & Preventive Maint. Tech I	3	-
MST134	Hydraulic & Pneumatic Systems^	6	MTH101 or Proficiency
EST130	Electrical Circuits and Devices	4	MTH101 or Proficiency
	TOTAL	14	
<u>Semester III</u>			
ECA127	Programming Logic & Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
AIT222	Predictive & Preventive Maint. Tech II	3	AIT134
		6	
	<b>TOTAL CREDITS</b>	36	

^Based upon SSC placement



# ENGINEERING TECHNOLOGY

## ONE –YEAR TECHNICAL CERTIFICATE

### WIND TURBINE MAINTENANCE TECHNOLOGY

Effective Summer 2012

Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MST121	Blue Print Reading	2	-	
AET121	Sustainable/Alternative Energy Sources	3	-	
AIT223	Analysis/Applications of Wind Turbine Energy	3	AIT136	
AIT134	Predictive/Preventive Maintenance Technologies I	3	MST221 and MST125	
MST221	Mechanical Drive Components	3	-	
EST130	Electrical Circuits and Devices^	4	MTH101 or Proficiency	
AIT222	Predictive/Preventive Maintenance Technologies II	3		
AIT224	Wind Turbine Energy Systems	3	AET223	
TOTAL		24		

  

Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EMS123	Emergency Medical Responder	3	-	
ENV123	OSHA 10-Hour Safety Orientation	1	-	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
MTH125	College Algebra^	4	MTH123 or Proficiency	
TOTAL		11		
TOTAL CREDIT HOURS		35		

### Wind Turbine Maintenance TECHNICAL CERTIFICATE

Semester I		Credit Hours	Prerequisite
EMS123	Emergency Medical Responder	3	-
MST121	Blue Print Reading	2	-
AET121	Sustainable/Alternative Energy Sources	3	-
MST221	Mechanical Drive Components	3	-
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency
TOTAL		14	
Semester II			
AIT223	Analysis/Applications of Wind Turbine Energy	3	AIT136
MTH125	College Algebra^	4	MTH123 or Proficiency
EST130	Electrical Circuits and Devices^	4	MTH101 or Proficiency
AIT134	Predictive Maint. Tech I	3	-
TOTAL		14	
Semester III			
AIT224	Wind Turbine Energy Systems	3	AIT223
ENV123	OSHA 10-Hour Safety Orientation	1	-
AIT222	Predictive Maint. Tech II	3	AIT134
TOTAL CREDIT HOURS		35	

Rope and Rescue course is offered as a non-credited course.

^Based on SSC placement scores



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### **ELECTRONIC ENGINEERING TECHNOLOGY**

*Effective Summer 2012*

Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DET125	Basic AutoCAD	3		
EET120	DC Circuit Analysis	4	Co-MTH125, Co-MTH128	
EET122	AC Circuit Analysis	4	EET120	
EET123	Electronic Devices & Circuits	4	EET120 or EST130	
EET125	Circuit Manufacturing Techniques	1	EET120	
EET225	Digital Communication & Systems Analysis	3	EET248 and EET262	
EET230	Electronic Circuits I	4	EET123	
EET232	Industrial Electronics	4	EET123	
EET235	Technical Project - Electronic	1	EET125, EET230, EET248	
EET248	Workstation Interfacing	4	ECA128, Co-EET262	
EET262	Pulse and Digital Integrated Circuits	4	ECA128 or ECA222	
ETD121	Engineering Student Success Seminar	1	-	
<b>TOTAL</b>		<b>37</b>		
Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA128	Visual Basic Programming	3	ECA127	
EET263	Industrial Sensors and Advanced Applications	2	PHY121	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH221	Concepts of Calculus	3	MTH126 or Proficiency	
PHY121	Physics I	4	Co-MTH125 and Co-MTH128	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from the list below.	3	-	
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>73</b>		

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ELECTRONIC ENGINEERING TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ECA127	Programming Logic and Problem Solving	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
EET120	DC Circuit Analysis	4	Co-MTH125, Co-MTH128
ETD121	Engineering Student Success Seminar	1	-
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
DET125	Basic AutoCAD	<u>3</u>	
		19	
<u>Second Semester</u>			
EET123	Electronic Devices & Circuits	4	EET120 or EST130
EET125	Circuit Manufacturing Techniques	1	EET120
ECA128	Visual Basic Programming	3	ECA127
MTH126	Pre-Calculus	4	MTH125 or Proficiency
EET122	AC Circuit Analysis	4	EET120
PHY121	Physics I	<u>4</u>	Co-MTH125 and Co-MTH128
		20	
<u>Third Semester</u>			
EET262	Pulse and Digital Integrated Circuits	4	ECA128 or ECA222
EET263	Industrial Sensors and Advanced Applications	2	EET120 or EST130
EET248	Workstation Interfacing	4	ECA128, Co-EET262
EET230	Electronic Circuits I	4	EET123
MTH221/MTH223	Concepts of Calculus or Analyt Geo – Calc I	<u>3/4</u>	MTH126 or Proficiency
		17/18	
<u>Fourth Semester</u>			
ENG221	Technical Report Writing	3	ENG124
EET225	Digital Communication & Systems Analysis	3	EET248 and EET262
EET232	Industrial Electronics	4	EET123
EET235	Technical Project - Electronic	1	EET125, EET230, EET248
COM123	Small Group Communication	3	ENG124
	Arts/Humanities Elective*	<u>3</u>	-
		17	
<b>TOTAL CREDITS</b>		<b>73/74</b>	

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

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ENGINEERING TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE

## ENVIRONMENTAL, HEALTH & SAFETY TECHNOLOGY

**Effective Summer 2012**

TECHNICAL COURSES							
Course No.	Course Title			Credits	Pre- and Co-Requisites		Completed Sem./Year
BIO126	Science, Energy & the Environment			4	-		
ETD121	Engineering Technology Seminar			1	-		
ENV121	Regulations & Compliance			3	-		
ENV221	OSHA 40-Hour HAZWOPER			2	-		
ENV222	Industrial Processes and Pollution Control			3	CHM121, MTH125, or CHM141		
ENV223	Basic Geology/Hydrology			3	MTH125		
ENV224	Air Sampling, Analysis, and Control			3	CHM121, MTH222 or CHM141		
ENV225	Solid & Hazardous Waste Sampling, Analysis and Management			3	CHM121, MTH222, ENV121, ENV221		
ENV226	Water Sampling, Analysis, and Control			3	CHM121, MTH222, ENV223		
ENV228	Health & Safety			3	ENV121		
ENV236	Environmental, Health and Safety Special Projects			3	ENV121, ITD122,ENV221		
TOTAL				31			
Select at least 1 course (typically ENV230) from the following TECHNICAL ELECTIVES: Please see course catalog for technical elective co- and pre-requisites							
TECHNICAL ELECTIVES				TECHNICAL ELECTIVES			
Course No.	Course Title	Credits	Completed Sem./Year	Course No.	Course Title	Credits	Completed Sem./Year
ENV164	Sustainable Green Bldg Tech	3		ENV143	Basic Water Treatment-Fluoridation+		
ENV123	OSHA 10-Hour Safety	1		ENV144	Basic Water Treat-Iron & Manganese <sup>+</sup>	1	
ENV124	Transportation Haz Mat Training	1		ENV145	Quality <sup>+</sup>	1	
ENV125	Intro to Haz Mat & Waste Mgmt	1		ENV146	Sedimentation <sup>+</sup>	1	
ENV126	HAZWOPER – Moderate Risk <sup>+</sup>	2		ENV147	Water Sources & Treatment <sup>+</sup>	1	
ENV163	Water/Wastewater Math & Chem.	2		ENV148	Distribution Facilities <sup>+</sup>	1	
ENV127	Water Cert. Exam Prep.	2		ENV149	Storage Systems <sup>+</sup>	1	
ENV128	Wastewater Cert. Exam Prep.	2		ENV150	System Disinfection <sup>+</sup>	1	
ENV129	Permits & Administration <sup>+</sup>	1		ENV151	System O&M <sup>+</sup>	1	
ENV130	Pumps, Maintenance & Safety <sup>+</sup>	3		ENV152	System Safety <sup>+</sup>	1	
ENV131	Wastewater Treatment I <sup>+</sup>	4		ENV153	Valves, Mains & Meters <sup>+</sup>	1	
ENV132	Wastewater Treatment II <sup>+</sup>	4		ENV154	Water Mains <sup>+</sup>	1	
ENV133	Wastewater Treatment – Indus. <sup>+</sup>	4		ENV155	Water Quality <sup>+</sup>	1	
ENV134	Wastewater Collection Systems <sup>+</sup>	4		ENV156	Disinfection & Chlorination <sup>+</sup>	1	
ENV135	Wastewater Analysis <sup>+</sup>	3		ENV157	Fixed Film Process <sup>+</sup>	1	
ENV136	Water Treatment I <sup>+</sup>	4		ENV158	Pollution Control <sup>+</sup>	1	
ENV137	Water Treatment II <sup>+</sup>	4		ENV159	Pond Systems <sup>+</sup>	1	
ENV138	Water Distribution Systems <sup>+</sup>	4		ENV160	Preliminary Treatment <sup>+</sup>	1	
ENV139	Water Analysis <sup>+</sup>	3		ENV161	Primary Treatment <sup>+</sup>	1	
ENV140	Basic Water Treat-Coag & Flocc <sup>+</sup>	1		ENV162	Suspended Growth Systems <sup>+</sup>	1	
ENV141	Basic Water Treatment-Disinfect <sup>+</sup>	1		ENV230	OSHA 8-Hour Refresher ++	1	
ENV142	Basic Water Treatment-Filtration <sup>+</sup>	1		ENV231	OSHA 30-Hour General Industry	2	
NON-TECH							
Course No.	Course Title			Credits	Pre- and Co-Requisites		Completed Sem./Year
MTH125	College Algebra ^			4	MTH123 or Proficiency		
MTH128	Trigonometry			1	Co-MTH125		
MTH222	Statistics^			3	MTH123, MTH125 or Proficiency		
CHM121	General Organic & Biological Chemistry I			4	CHM101 or HS Chem		
CHM122	General Organic & Biological Chemistry II			4	CHM121		
ITD122	Computer Applications for Professionals^			3	IDS101 or Proficiency		
ENG124	College Composition^			3	ENG105 or Proficiency		
ENG221	Technical Report Writing			3	ENG124		
COM123	Small Group Communication			3	ENG124		
	Select one Arts/Humanities elective from the list below*			3	-		
TOTAL				31			
TOTAL CREDIT HOURS				62/69			

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

+These are 100% internet-based training courses (Web Level 3).

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

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ENVIRONMENTAL, HEALTH & SAFETY TECHNOLOGY**  
**Effective Summer 2012**

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
BIO126	Science, Energy & the Environment	4	-
ETD121	Engineering Technology Seminar	1	-
CHM121	General Organic & Biological Chemistry I	<u>4</u>	CHM101 or HS Chem
		17	
<u>Second Semester</u>			
CHM122	General Organic & Biological Chemistry II	4	CHM121
MTH222	Statistics <sup>^</sup>	3	MTH123, MTH125 or Proficiency
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
ENV221	OSHA 40-Hour HAZWOPER	2	-
ENV121	Regulations & Compliance	3	-
	Arts/Humanities elective *	<u>3</u>	-
		18	
<u>Third Semester</u>			
ENV222	Industrial Processes and Pollution Control	3	CHM121, MTH125, MTH128
ENV223	Basic Geology/Hydrology	3	MTH125
ENV224	Air Sampling, Analysis, and Control	3	CHM121, MTH222 or CHM141
COM123	Small Group Communication	<u>3</u>	ENG124
		12	
<u>Fourth Semester</u>			
ENV236	Environmental Health & Safety Special Projects	3	ENV121, ITD122, ENV221
ENG221	Technical Report Writing	3	ENG124
ENV225	Solid & Hazardous Waste Sampling, Analysis & Mgmt.	3	CHM121, MTH222, ENV121, ENV221
ENV226	Water Sampling, Analysis, and Control	3	CHM121, MTH222, ENV223
ENV228	Health & Safety	3	ENV121
ENV230++/	OSHA 8-Hour HAZWOPER Refresher	1/3	ENV221
		<u>1/4</u>	
ENV Elective <sup>+</sup>		17/22	
<b>TOTAL CREDITS</b>		<b>64/69</b>	

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

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

+These are 100% internet-based training courses (Web Level 3).

ENV164, ENV123, ENV124, ENV125, ENV126, ENV163, ENV127, ENV128, ENV129, ENV130, ENV131, ENV132, ENV133, ENV134, ENV135, ENV136, ENV137, ENV138, ENV139, ENV140, ENV141, ENV142, ENV143, ENV144, ENV145, ENV146, ENV147, ENV148, ENV149, ENV150, ENV151, ENV152, ENV153, ENV154, ENV155, ENV156, ENV157, ENV158, ENV159, ENV160, ENV161, ENV162, ENV230, ENV231

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

Reviewed 3/2012  
Revised 2/2012



# ENGINEERING TECHNOLOGY

## ONE-YEAR CERTIFICATE PROGRAM

### SUSTAINABLE/ALTERNATIVE ENERGY TECHNOLOGY

#### ONE-YEAR TECHNICAL CERTIFICATE

Effective Summer 2012

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	
EST130	Electrical Circuits and Devices^	4	MTH101 or Proficiency	
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	EST130 or EET120	
EET128	National Electric Code & Electrical System Design	2	EET122	
TOTAL		24		

Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MTH125	College Algebra^	4	MTH123 or Proficiency	
DET125	Basic AutoCAD	3		
DET230	Advanced AutoCAD (Inventor)	3	DET125	
TOTAL		10		

TOTAL CREDIT HOURS		34		
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^ Based on SSC placement scores

\*\* Eight Week Courses

## STUDENT ADVISING NOTES

4053

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

### **SUSTAINABLE/ALTERNATIVE ENERGY TECHNOLOGY** **ONE-YEAR TECHNICAL CERTIFICATE** **Effective Summer 2012**

Summer I		Credit Hours	Prerequisite
MTH125	College Algebra	4	MTH123 or Proficiency
AET121	Sustainable/Alternative Energy Sources	<u>3</u>	-
TOTAL		7	
Semester I			
AET122	Analysis/Apps of Sustainable Alternative Energy	3	AET121
EST130	Electrical Circuits and Devices	4	MTH101
MET225	Manufacturing Processes	3	-
DET125	Basic AutoCAD	<u>3</u>	-
TOTAL		13	
Semester II			
AET123	Sustainable/Alternative Energy Systems**	3	AET122
AET124	Sustainable/Alternative Energy Project**	3	AET123
EET227	PLCs and Industrial Controls I	3	EST130 or EET122
EET128	National Electric Code & Electrical System Design	2	EET122
DET230	Advanced AutoCAD (Inventor)	3	DET 125
TOTAL		14	
TOTAL CREDIT HOURS		34	

^ Based on SSC placement scores

\*\* Eight Week Courses



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### HEATING, VENTILATING, AND AIR CONDITIONING TECHNOLOGY

Effective Summer 2012

Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HVC121	HVAC Principles I	3	-	
HVC122	HVAC Principles II	3	Co-HVC121	
HVC222	HVAC Design and Application	3	HVC122	
HVC223	HVAC System Operation and Troubleshooting - Heating	3	HVC122	
HVC224	HVAC System Operation and Troubleshooting - Cooling	3	HVC122	
HVC227	HVAC Field Installation Techniques and Procedures	4	Co-HVC122	
HVC123	Sheet Metal Layout I	3	-	
HVC226	Sheet Metal Layout II	3	HVC123 or MST132	
HVC234	HVAC Electrical Systems & Applications	3	MTH101 or Proficiency, Co-HVC121	
HVC236	Advanced HVAC Electrical Applications	3	HVC234	
MST121	Blueprint Reading	2	-	
	<i>Select 6 credit hours from the following technical electives:</i>			
HVC237	HVAC Commercial Controls	3		
HVC232	Advanced HVAC Applications	3	HVC222 and HVC227	
HVC235	Refrigeration	3	-	
HVC238	Chiller Operations	3	HVC122	
<b>TOTAL</b>		<b>39</b>		
Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ETD121	Engineering Technology Seminar	1	-	
CET121	Building Materials and Construction Methods	3	-	
PHY101	Principles of Physics^	4	MTH123 or Proficiency And ID102 or Proficiency	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MST126	Pipefitting Principles and Applications^	4	MTH101 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from the list below.*	3	-	
<b>TOTAL</b>		<b>31</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**HEATING, VENTILATING, AND AIR CONDITIONING TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
ETD121	Engineering Technology Seminar	1	-
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency
HVC121	HVAC Principles I	3	-
HVC122	HVAC Principles II	3	Co-HVC121
HVC123	Sheet Metal Layout I	3	-
	Arts or Humanities Elective*	<u>3</u>	-
		17	
<u>Second Semester</u>			
MST121	Blueprint Reading	2	-
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
CET121	Building Materials and Construction Methods	3	-
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency
HVC227	HVAC Field Installation Techniques/Procedures	4	Co-HVC122
			MTH123 or Proficiency
PHY101	Principles of Physics <sup>^</sup>	<u>4</u>	And
			IDS102 or Proficiency
		19	
<u>Third Semester</u>			
MST126	Pipefitting Principles & Applications	4	MTH101 or Proficiency
HVC222	HVAC Design and Application	3	HVC122
HVC223	HVAC System Operation/Troubleshooting-Heating	3	HVC122
HVC234	HVAC Electrical Systems & Applications	3	MTH125 or Proficiency, Co- HVC121
COM123	Small Group Communication	<u>3</u>	ENG124
		16	
<u>Fourth Semester</u>			
HVC226	Sheet Metal Layout II	3	HVC123MST132
HVC224	HVAC System Operation/Troubleshooting-Cooling	3	HVC122
HVC236	Advanced HVAC Electrical Applications	3	HVC234
ENG221	Technical Report Writing	3	ENG124
	Technical Electives**	6	-
		<u>18</u>	
<b>TOTAL CREDITS</b>		<b>70</b>	

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

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\*\* HVC232, HVC235, HVC237, HVC238

Reviewed 3/2012  
Revised 2/2012



# ENGINEERING TECHNOLOGY ONE-YEAR CERTIFICATE PROGRAM

## HVAC TECHNOLOGY PROGRAM

### ONE-YEAR TECHNICAL CERTIFICATE

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HVC121	HVAC Principles I	3	-	
HVC122	HVAC Principles II	3	Co-HVC121	
HVC234	HVAC Electrical Systems & Applications	3	MTH101 or Proficiency, Co-HVC121	
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	Co-HVC122	
HVC123	Sheet Metal Layout I	3	-	
TOTAL		22		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CET121	Building Materials and Construction	3	-	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENV231	OSHA 30-Hour General Industry	2	-	
TOTAL		8		
TOTAL CREDIT HOURS		30		

#### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

### HVAC ONE-YEAR TECHNICAL CERTIFICATE

<u>Semester I</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
HVC121	HVAC Principles I	3	-
HVC122	HVAC Principles II	3	Co-HVC121
HVC123	Sheet Metal Layout I	3	-
ENV231	OSHA 30-Hour General Industry	2	-
		11	
<u>Semester II</u>			
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
HVC227	HVAC Field Installation Techniques/Procedures	4	Co-HVC122
HVC234	HVAC Electrical Systems & Applications	3	MTH101 or Proficiency, Co-HVC121
HVC223	HVAC System Operation/Troubleshooting-Heating	3	HVC122
		13	
<u>Semester III</u>			
CET121	Building Materials and Construction	3	-
HVC224	HVAC System Operation/Troubleshooting-Cooling	3	HVC122
		6	
TOTAL CREDITS		30	

^Based on SSC placement scores





# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### MECHANICAL ENGINEERING TECHNOLOGY

*Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MET123	Material Science	2	-	
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125	
MET221	Advanced Strength of Materials	2	MET124	
MET222	Fluid Power	4	MET124	
MET223	Dynamics	2	MET124	
MET225/AIT122	Manufacturing Processes or Machine Tools	3	-	
MET226	Technical Project - Mechanical and Design	2	ETD121, (DET125 or DET131)	
MET227	Thermodynamics and Heat Transfer	3	MTH125, PHY121	
MET228	Machine Design	4	MET124	
DET121	Engineering Drawing	3	-	
DET125 Or DET131	Basic AutoCAD Or Pro Engineer	3 3	DET21	
EST130	Electrical Circuits and Devices <sup>^</sup>	4	MTH101 or Proficiency	
ETD121	Engineering Student Success Seminar	1	-	
<b>TOTAL</b>		<b>37</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH223	Analytical Geometry – Calculus I	4	MTH126 or Proficiency	
PHY121	Physics I	4	Co-MTH125 and Co- MTH128	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from the list below.*	3	-	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>69</b>		

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

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MECHANICAL ENGINEERING TECHNOLOGY**

Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ETD121	Engineering Student Success Seminar	1	-
MET123	Material Science	2	-
DET121	Engineering Drawing	3	-
ENG124	College Composition^	3	ENG105 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
ITD122	Computer Applications for Professionals	<u>3</u>	ITD100 or Proficiency
		17	
<u>Second Semester</u>			
MET124	Statics & Strength of Materials	4	Co-PHY121
MET225/AIT122	Manufacturing Processes or Machine Tools	3	-
MTH126	Pre-Calculus	4	MTH125 or Proficiency
DET125	Basic AutoCAD	3	DET121
or DET131	or Pro Engineer		
PHY121	Physics I	<u>4</u>	Co-MTH125 and Co- MTH128
		18	
<u>Third Semester</u>			
COM123	Small Group Communication	3	ENG124
MET228	Machine Design	4	MET124
MET221	Advanced Strength of Materials	2	MET124
MET222	Fluid Power	4	MET124
MTH223	Analytical Geometry-Cal I	<u>4</u>	MTH126 or Proficiency
		17	
<u>Fourth Semester</u>			
MET223	Dynamics	2	MET124
EST130	Electrical Circuits and Devices^	4	MTH101 or Proficiency
MET227	Thermodynamics and Heat Transfer	3	MTH125, PHY121
MET226	Technical Project - Mechanical and Design	2	ETD121 (DET125 or DET131)
ENG221	Technical Report Writing	3	ENG124
	Arts/Humanities Elective*	3	-
		<u>17</u>	
<b>TOTAL CREDITS</b>		69	

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# ENGINEERING TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### MECHANICAL ENGINEERING TECHNOLOGY - FUEL CELL MAJOR

*Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125	
MET229	Introduction to Alternative Energy and Fuel Cells	3	-	
MET222	Fluid Power	4	MET124	
MET230	Analysis and Applications of Types of Fuel Cells	3	MET229	
MET225/AIT122	Manufacturing Processes or Machine Tools	3	-	
MET231	Fuel Cell Systems	3	MET230	
MET227	Thermodynamics and Heat Transfer	3	MTH125, PHY121	
MET232	Fuel Cell Project	3	MET231	
DET230	Advanced AutoCAD (Inventor)	3	DET125	
DET125	Basic AutoCAD	3		
EST130	Electrical Circuits and Devices	4	MTH125	
ETD121	Engineering Student Success Seminar	1	-	
<b>TOTAL</b>		<b>37</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH128	Trigonometry	1	Co-MTH125	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH221/MTH223	Concepts of Calculus or Analyt Geo – Cal I	3/4	MTH126 or Proficiency	
PHY121	Physics I	4	Co-MTH125 and Co-MTH128	
CHM141	General Chemistry I	5	CHM101 or HS Chem	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM123	Small Group Communication	3	ENG124	
	Select one (1) Arts/Humanities elective from the list below.*	3	-	
<b>TOTAL</b>		<b>36/37</b>		
<b>TOTAL CREDIT HOURS</b>		<b>73/74</b>		

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MECHANICAL ENGINEERING TECHNOLOGY-FUEL CELL MAJOR**

## Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ETD121	Engineering Student Success Seminar	1	-
MET229	Introduction to Alternative Energy and Fuel Cells	3	-
CHM141	General Chemistry I	5	CHM101 or HS Chem
MTH125	College Algebra^	4	MTH123 or Proficiency
MTH128	Trigonometry	1	Co-MTH125
ENG124	College Composition^	3	ENG105 or Proficiency
DET125	Basic AutoCAD	<u>3</u>	
		20	
<u>Second Semester</u>			
MET124	Statics & Strength of Materials	4	Co-PHY121 and MTH125
MET230	Analysis and Applications of Types of Fuel Cells	3	MET229
MTH126	Pre-Calculus	4	MTH125 or Proficiency
ECA127	Programming Logic & Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
PHY121	Physics I	<u>4</u>	MTH125 and MTH128
		18	
<u>Third Semester</u>			
COM123	Small Group Communication	3	ENG124
MET222	Fluid Power	4	MET124
MET231	Fuel Cell Systems	3	MET230
DET230	Advanced AutoCAD (Inventor)	3	DET125
MTH221/MTH223	Concepts of Calculus or Analytical Geo – Calc I	<u>3/4</u>	MTH126 or Proficiency
		16/17	
<u>Fourth Semester</u>			
EST130	Electrical Circuits and Devices	4	MTH101 or Proficiency
MET227	Thermodynamics and Heat Transfer	3	MTH125, PHY121
MET232	Fuel Cell Project	3	MET231
ENG221	Technical Report Writing	3	ENG124
MET225/AIT122	Manufacturing Processes or Machine Tools	3	-
	Arts/Humanities Elective*	<u>3</u>	-
		19	
<b>TOTAL CREDITS</b>		<b>73/74</b>	

^ Based upon SSC placement score

\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012

Revised 2/2012



# ENGINEERING TECHNOLOGY

## ONE-YEAR CERTIFICATE PROGRAM

### FUEL CELL TECHNOLOGY

#### ONE-YEAR TECHNICAL CERTIFICATE

Summer 2012

Technical Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EET128	National Electric Code & Electrical System Design	2	EET122	
EET227	PLCs and Industrial Controls I	3	EST130 or EET120	
EST130	Electrical Circuits and Devices^	4	MTH101 or Proficiency	
MET225	Manufacturing Processes	3	-	
MET229	Alternative Energy Sources/Fuel Cells	3	-	
MET230	Analysis/Applications of Fuel Cells	3	MET229	
MET231	Fuel Cell Systems	3	MET230	
MET232	Fuel Cell Project	3	Co-MET231	
TOTAL		24		

Non-Tech Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
DET125	Basic AutoCAD	3		
MTH125	College Algebra^	4	MTH123 or Proficiency	
TOTAL		10		

TOTAL CREDIT HOURS		34		
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^ Based upon SSC placement score

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

**FUEL CELL TECHNOLOGY**  
**ONE-YEAR TECHNICAL CERTIFICATE**  
 Summer 2012

<u>Summer I</u>		<u>Credit Hours</u>	<u>Prerequisite</u>
MTH125	College Algebra^	4	MTH123 or Proficiency
MET229	Alternative Energy Sources/Fuel Cells	4	-
TOTAL		7	
<u>Semester I</u>			
MET230	Analysis/Applications of Fuel Cells	3	MET229
EST130	Electrical Circuits and Devices	4	MTH125
DET125	Basic AutoCAD	3	
MET225	Manufacturing Processes	3	
TOTAL		13	
<u>Semester II</u>			
MET231	Fuel Cell Systems	3	MET230
MET232	Fuel Cell Project	3	Co-MET231
EET227	PLCs and Industrial Controls I	3	EST130
EET128	National Electric Code & Electrical System Design	2	EST130
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
TOTAL		14	
<b>TOTAL CREDITS</b>		<b>34</b>	

^ Based upon SSC placement score



**Dental Assisting**  
***Effective Summer 2012***

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
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	Intro to Dental Terminology & Basic Anatomy	2		
<b>TOTAL</b>		<b>15</b>		

<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
CHM101	Introduction to Chemistry <sup>+</sup>	4	MTH123or proficiency or HS Chem	
BIO101	Intro to Anatomy & Physiology <sup>+</sup>	3	IDS102 or proficiency	
ITD122	Computer Applications for Professionals ^	3	ITD100 or proficiency	
SOC121	Sociology <sup>^</sup>	3	IDS102 or proficiency	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
COM121	Effective Speaking	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or proficiency	
BIO121	Anatomy & Physiology I	4	BIO101 or HS Bio	
PHL122	Ethics	3		
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123	
MTH125 or MTH222	College Algebra <sup>^</sup> or Statistics	3/4	MTH123 or proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
SOC225	Cultural Diversity	3		
ENG230	Business Communication	3	ENG124	
	Literature or History elective*	3	ENG124	
<b>TOTAL</b>		<b>49/50</b>		
<b>TOTAL CREDIT HOURS</b>		<b>64/65</b>		

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

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

+ 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.

# 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.

\* Student may select any literature or history course 3 credit hours or more.

Reviewed 3/2012  
Revised 2/2012

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

## **Dental Assisting** ***Effective Summer 2012***

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
DAS121	Dental Assisting Techniques I	3	
DAS122	Dental Assisting Radiography	2	
MTH125 or	College Algebra^	4	MTH123 or proficiency
MTH222	Statistics^	3	MTH123 or proficiency
ENG124	College Composition^	3	ENG105 or proficiency
DAS128	Intro to Dental Terminology & Basic Anatomy	<u>2</u>	
		13/14	
<u>Second Semester</u>			
CHM101	Intro to Chemistry^+	4	MTH123 or proficiency Or HS Chem
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency
SOC121	Sociology^	3	IDS102 or proficiency
DAS123	Dental Assisting Techniques II	3	DAS121
DAS124	Dental Assisting Materials	<u>2</u>	
		15	
<u>Third Semester</u>			
BIO101	Introduction to Anatomy & Physiology	3	
PSY121	General Psychology^	3	IDS102 or proficiency
DAS125	Dental Assisting Specialty+	<u>3</u>	DAS123
		9	
<u>Fourth Semester</u>			
BIO121	Anatomy & Physiology I	4	BIO101 or HS Bio
COM121	Effective Speaking	3	
SOC225	Cultural Diversity	3	
	Literature or History Elective*	<u>3</u>	ENG124
		13	
<u>Fifth Semester</u>			
BUS121	Business Administration^	4	IDS102 or proficiency
PHL122	Ethics	3	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123
ENG230	Business Communication	<u>3</u>	ENG124
		14	
<b>TOTAL CREDITS</b>		<b>64</b>	

*Please be advised that this curriculum could change. 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.*

^ Based upon SSC placement score

+ 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.

# 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.

\* Student may select any literature or history course 3 credit hours or more.

Reviewed 3/2012

Revised 2/2012





# Health Sciences

## ASSOCIATE OF APPLIED SCIENCE

3401

### Dental Hygiene

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DHY121	Head, Neck & Oral Anatomy	2		
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	
DHY127	Community Oral Health I	1		
DHY131	Fundamentals of Dental Hygiene Practice	4		
DHY132	Dental Hygiene Theory I	2	DHY131, Co-DHY133	
DHY133	Clinical Dental Hygiene I	2	DHY131, DHY123, Co-DHY132	
DHY134	Clinical Dental Hygiene IA	1	DHY133	
DHY221	Nutrition in Dentistry	1	DHY132	
DHY222	Dental Pharmacology	2	BIO221, DHY126	
DHY223	Community Oral Health II	1	DHY127, DHY134	
DHY224	Periodontics II	1	DHY124	
DHY225	Anesthesia & Pain Control	2	BIO122, DHY121, DHY132	
DHY231	Dental Hygiene Theory II	1	DHY132, Co-DHY232	
DHY232	Clinical Dental Hygiene II	4	DHY134, Co-DHY231	
DHY233	Dental Hygiene Theory III	2	DHY231, Co-DHY234	
DHY234	Clinical Dental Hygiene III	5	DHY232, Co-DHY233	
Total		42		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy & Physiology I	4	BIO101 or BIO127 or proficiency or HS bio or BIO123	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123	
BIO221	Microbiology#	4	BIO122, BIO123, or BIO141	
CHM121	Gen/Org and Biol Chemistry I	4	CHM101 or HS Chem	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG105 or proficiency	
MTH222	Statistics^	3	MTH123 or proficiency	
PSY121	General Psychology^	3	IDS102 or proficiency	
SOC121	Sociology^	3	IDS102 or proficiency	
TOTAL		31		
TOTAL CREDIT HOURS		73		

Please be advised that this curriculum could change. 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.

^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.

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

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

### **Dental Hygiene** **Effective Summer 2012**

Pre Eligibility Courses

CHM121	Gen/Org and Biol Chemistry I	4
BIO121	Anatomy & Physiology I	4
PSY121	General Psychology^	3
ENG124	College Composition^	<u>3</u>
		14

Pre- and Co-requisites

CHM101 or HS Chem
BIO101 or BIO127 or HS Bio
IDS102 or proficiency
ENG105 or proficiency

First Semester

DHY121	Head, Neck & Oral Anatomy	2
DHY122	Oral Histology & Embryology	1
DHY123	Dental Radiography	3
DHY131	Fundamentals of DH Practice	4
BIO122	Anatomy & Physiology II	<u>4</u>
		14

Co-DHY121

BIO121 or BIO123

Second Semester

DHY124	Periodontics I	2
DHY125	Dental Materials	3
DHY126	Pathology	2
DHY132	Dental Hygiene Theory I	2
DHY133	Clinical Dental Hygiene I	2
BIO221	Microbiology#	<u>4</u>
		14

DHY122
DHY131
DHY122
DHY131, Co-DHY133
DHY131, DHY123, Co-DHY132
BIO122, BIO123, or BIO141

Summer Semester

DHY127	Community Oral Health I	1
DHY134	Clinical Dental Hygiene IA	1
DHY221	Nutrition in Dentistry	1
MTH222	Statistics^	<u>3</u>
		6

DHY133
DHY132
MTH123 or proficiency

Third Semester

SOC121	Sociology^	3
DHY222	Dental Pharmacology	2
DHY223	Community Oral Health II	1
DHY225	Anesthesia & Pain Control	2
DHY231	Dental Hygiene Theory II	1
DHY232	Clinical Dental Hygiene II	<u>4</u>
		14

IDS102 or proficiency
BIO221, DHY126
DHY127, DHY134
BIO122, DHY121, DHY132
DHY132, Co-DHY232
DHY134, Co-DHY231

Fourth Semester

COM121	Effective Speaking	3
DHY224	Periodontics II	1
DHY233	Dental Hygiene Theory III	2
DHY234	Clinical Dental Hygiene III	<u>5</u>
		11

DHY124
DHY231, Co-DHY234
DHY232, Co-DHY233

**TOTAL CREDITS                      73**

*Please be advised that this curriculum could change. 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.*

^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.

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

Reviewed 3/2012  
Revised 2/2012



## Health Sciences Division

### ASSOCIATE OF TECHNICAL STUDIES

3422

#### Expanded Functions Dental Auxiliary Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DAS226	Expanded Dental Assisting I	1	Co-DAS227	
DAS227	Expanded Dental Assisting II	2	Co-DAS226	
DAS228	Directed Clinical Practice	4	DAS226, DAS227	
DAS128	Intro to Dental Terminology & Basic Anatomy	2		
<b>TOTAL</b>		<b>9</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Intro to Anatomy & Physiology <sup>++</sup>	3	IDS102 or proficiency	
BIO121	Anatomy & Physiology I	4	BIO101 or BIO123 or BIO127 Or HS Bio	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141	
BUS121	Business Administration	4	IDS102 or proficiency	
CHM121	Gen/Org and Biol Chemistry I	4	CHM101 or HS Chem	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
IDS115	College Success Skills	3		
ITD122	Computer Applications for Professionals	3	ITD100 or proficiency	
MTH125 or MTH222	College Algebra <sup>^</sup> or Statistics <sup>++</sup>	4/3	MTH123 or proficiency	
PHL122	Ethics	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or proficiency	
SOC121	Sociology <sup>^</sup>	3	IDS102 or proficiency	
	Social Science Elective <sup>*</sup>	3		
<b>TOTAL</b>		<b>56/57</b>		
<b>TOTAL CREDIT HOURS</b>		<b>65/66</b>		

++Students who begin taking technical courses summer 2013 and after will be required to take MTH125 College Algebra or MTH222 Statistics.

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

<sup>^</sup>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.

\* May select any PSY/SOC course of three credit hours or more or SWK127

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Expanded Functions Dental Auxiliary**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BIO101	Intro to A&P+	3	IDS102 or proficiency
IDS115	College Success Skills	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency
PSY121	General Psychology^	3	IDS102 or proficiency
DAS128	Intro to Dental Terminology & Basic Anatomy	<u>2</u>	
		14	
<u>Second Semester</u>			
BUS121	Business Administration^	4	IDS102 or proficiency
DAS226	Expanded Dental Assisting I	1	Co-DAS227
DAS227	Expanded Dental Assisting II	<u>2</u>	Co-DAS226
		7	
<u>Third Semester</u>			
BIO121	Anatomy & Physiology I	4	BIO101 or BIO123 or BIO127 Or HS Bio
SOC121	Sociology^	3	IDS102 or proficiency
ENG124	College Composition^	3	ENG105 or proficiency
DAS228	Directed Clinical Practice	4	DAS226, DAS227
MTH125	College Algebra^ or Statistics^++	4/3	MTH123 or proficiency
MTH222		17/18	
<u>Fourth Semester</u>			
CHM121	Gen/Org and Biol Chemistry I	4	CHM101 or HS Chem
COM121	Effective Speaking	3	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123
	Social Science Elective*	<u>3</u>	
		14	
<u>Fifth Semester</u>			
PHL122	Ethics	3	
COM122	Interpersonal Communication	3	
BIO124	Human Diseases	3	BIO122 or BIO123
BIO221	Principles of Microbiology	<u>4</u>	BIO122, BIO123, or BIO141
		13	
<b>TOTAL CREDITS</b>		<b>65/66</b>	

++Students who begin taking technical courses summer 2013 and after will be required to take MTH125 College Algebra or MTH222 Statistics.

*Please be advised that this curriculum could change. 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.*

^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.

\* May select any PSY/SOC course of three credit hours or more or SWK127



# Health Sciences

## ASSOCIATE OF SCIENCE

3563

### Dietary Manager

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DMA121	ServSafe	1	Co-DMA122	
DMA122	ServSafe Experience	1	Co-DMA121	
DMA123	Nutrition/Medical Nutrition Therapy for Dietary Manager	3	Co-DMA124	
DMA124	Nutrition/MNT For Dietary Manager Experience	3	Co-DMA123	
DMA125	Management of Foodservice Operations for the Dietary Manager	3	Co-DMA126	
DMA126	Management of Foodservice Operations for the Managers Experience	3	Co-DMA125	
DMA127	Dietary Operations Delivery	3	Co-DMA128	
DMA128	Dietary Operation Delivery Experience	3	Co-DMA128	
<b>TOTAL</b>		<b>20</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Intro to Anatomy & Physiology <sup>+</sup>	3	IDS102 or proficiency	
BIO123	Principles of Human Structure and Functions	5	BIO101 or HS BIO or BIO121	
BIO125	Medical Terminology	3		
CHM101	Intro to Chemistry <sup>+</sup>	4	MTH123 or proficiency or HS Chem	
COM121	Effective Speaking	3		
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
PHL122	Ethics	3		
PSY121	General Psychology <sup>^</sup>	3	IDS102 or proficiency	
SOC121	Sociology <sup>^</sup>	3	IDS102 or proficiency	
SOC225	Cultural Diversity	3		
ENG233 or HIS121	British Literature Med to 1785  US History 1- to 1877	3	ENG124	
<b>TOTAL</b>		<b>43</b>		
<b>TOTAL CREDIT HOURS</b>		<b>63</b>		

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

<sup>^</sup>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. The Student has the ability to test out of the classes to take them.

The student has the option of taking classes during the summer. Field experience can be arranged with permission.

This coursework is in compliance with the requirements of the Dietary Manager's Association and upon completion: the student is eligible to take the national certification examination.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Dietary Manager**  
***Effective Summer 2012***

First Semester

		Credit Hours	Pre- and Co-requisites
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
PSY121	General Psychology <sup>^</sup>	3	IDS 102 or proficiency
DMA121	ServSafe	1	Co-DMA122
DMA122	ServSafe Experience	1	Co- DMA121
BIO125	Medical Terminology	3	
SOC121	Sociology <sup>^</sup>	<u>3</u>	IDS102 or proficiency
		18	

Second Semester

CHM101	Intro to Chemistry <sup>^+</sup>	4	MTH123 or proficiency or HS Chem
ENG221	Technical Report Writing	3	ENG124
BIO101	Intro to Anatomy & Physiology <sup>^+</sup>	3	IDS102 or proficiency or HS BIO
DMA123	Nutrition/Medical Nutrition Therapy	3	Co-DMA124
DMA124	Nutrition/MNT Therapy Experience	<u>3</u>	Co- DMA123
		16	

Third Semester

BIO123	Human Structure and Functions	5	BIO101 or HS BIO or BIO121
COM121	Effective Speaking	3	
DMA125	Management of Food Service Operations	3	Co-DMA126
DMA126	Management of Food Service Operations Experience	<u>3</u>	Co-DMA125
		14	

Fourth Semester

DMA127	Dietary Operations Delivery	3	Co-DMA128
DMA128	Dietary Operations Delivery Experience	3	Co-DMA127
PHL122	Ethics	3	
SOC225	Cultural Diversity	3	
ENG233	British Literature Med to 1785		ENG124
or			
HIS121	US History 1- to 1877	<u>3</u>	
		15	
	<b>TOTAL CREDITS</b>	<b>63</b>	

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

<sup>^</sup>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.

The Student has the ability to test out of the classes to take them.

The student has the option of taking classes during the summer. Field experience can be arranged with permission.

This coursework is in compliance with the requirements of the Dietary Manager's Association and upon completion: the student is eligible to take the national certification examination.



## Health Sciences One Year Certificate Program

3565

### *Dietary Manager Certificate Program*

*Summer 2012 – Spring 2013*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
DMA121	ServSafe	1	Co-DMA122	
DMA122	ServSafe Experience	1	Co-DMA121	
DMA123	Nutrition/Medical Nutrition Therapy for Dietary Manager	3	Co-DMA124	
DMA124	Nutrition/ MNT Therapy for Dietary Managers Experience	3	Co-DMA123	
DMA125	Management of Foodservice Operations for the Dietary Manager	3	Co-DMA126	
DMA126	Management of Foodservice Operations for the Managers Experience	3	Co-DMA125	
DMA127	Dietary Operations Delivery	3	Co-DMA128	
DMA128	Dietary Operations Delivery Experience	3	Co-DMA127	
<b>TOTAL</b>		<b>20</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101 Or BIO127	Introduction to Anatomy & Physiology+ Or Human Biology	3 4	IDS102 or proficiency	
ENG124	College Composition^	3	ENG105 or proficiency	
MTH125	College Algebra^	4	MTH123 or proficiency	
CHM101	Introduction to Chemistry^	4	MTH123 or proficiency	
HTH101	Student Success for Health	1		
Elective	Elective*	3/4		
<b>TOTAL</b>		<b>19/20</b>		
<b>TOTAL CREDIT HOURS</b>		<b>39/40</b>		

*Please be advised that this curriculum could change. 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.*

^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.

\*Suggested Electives for students desiring to continue toward the Associate of Science for the Dietary Manager or Dietetic Technician Programs: Arts and Humanities elective, COM121, PSY121, SOC225, PHL122 or BUS121

The student has the option of taking classes during the summer. Field experience can be arranged with permission. This coursework is in compliance with the requirements of the Dietary Manager's Association and upon completion: the student is eligible to take the national certification examination.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

**Dietary Manager Certificate Program**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
DMA121	ServSafe	1	Co-DMA122
DMA122	ServSafe Experience	1	Co-DMA121
DMA123	Nutrition/ Medical Nutrition Therapy	3	Co-DMA124
DMA124	Nutrition /Medical Nutrition Therapy Experience	3	Co-DMA123
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
HTH101	Student Success for Health	<u>1</u>	
		<b>16</b>	
<u>Second Semester</u>			
DMA125	Management of Foodservice Operations	3	Co-DMA126
DMA126	Management of Foodservice Operations Experience	3	Co-DMA125
BIO101	Introduction to Anatomy and Physiology <sup>^</sup>	3	IDS102 or Proficiency
Or			
BIO127	Human Biology	4	
CHM101	Introduction to Chemistry <sup>^</sup>	<u>4</u>	MTH123 or proficiency or HS Chem
		<b>13/14</b>	
<u>Third Semester</u>			
DMA127	Dietary Operations Delivery	3	Co-DMA128
DMA128	Dietary Operations Delivery Experience	3	Co-DMA127
Elective*		<u>3/4</u>	
		<b>9/10</b>	
<b>TOTAL CREDITS</b>		<b>39/40</b>	

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

<sup>^</sup>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.

\*Suggested Electives for students desiring to continue toward the Associate of Science for the Dietary Manager or Dietetic Technician Programs: Arts and Humanities elective, COM121, PSY121, SOC225, PHL122 or BUS121

The student has the option of taking classes during the summer. Field experience can be arranged with permission. This coursework is in compliance with the requirements of the Dietary Manager's Association and upon completion: the student is eligible to take the national certification examination.





## Health Sciences ASSOCIATE OF APPLIED SCIENCE

3555

### *Emergency Fire Services* *Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EMS121	EMT-Basic #	5		
EMS122	Paramedic I	10	BIO101, EMS121	
EMS221	Paramedic II	10	EMS122	
EMS222	Paramedic III	4	EMS221	
FST225	Haz Mat/ WMD	3		
FST226	Line Officer	3		
FST228	Firefighter I & II+++	10		
<b>TOTAL</b>		<b>45</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Introduction to A&P+^	3	IDS102 or proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG105 or proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency	
MTH125	College Algebra^	4	MTH123 or proficiency	
PHY101	Principles Physics^	4	IDS102 or proficiency, MTH123 or proficiency	
PSY121	General Psychology^	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>23</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

*Please be advised that this curriculum could change. 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.*

^ Based on SSC placement score.

# EMS121 is a prerequisite for EMS122. A student can waive this course by showing proof of current State of Ohio EMT-B certification. This certification is required for enrollment to the paramedic program. Must be completed with a grade of "B" or higher prior to the start of EMS122

++++ FST228 – Contact Emergency Fire Services Coordinator for equipment requirements.

+ 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.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Emergency Fire Services**  
**Effective Summer 2012**

<u>Summer</u>		Credit Hours	Pre- and Co-requisites
BIO101	Intro to A&P+^	3	IDS102 or proficiency or HS BIO
EMS121	EMT-Basic#	<u>5</u> 8	
<u>First Semester</u>			
EMS122	Paramedic I	10	BIO101, EMS121
ENG124	College Composition^	<u>3</u> 13	ENG105 or proficiency
<u>Second Semester</u>			
PSY121	General Psychology^	3	IDS102 or proficiency
MTH125	College Algebra^	4	MTH123 or proficiency
EMS221	Paramedic II	<u>10</u> 17	EMS122
<u>Summer</u>			
EMS222	Paramedic III	4	EMS221
<u>Third Semester</u>			
ITD122	Computer Applications for Professionals	3	ITD100 or proficiency
FST228	Firefighter I&II++++	<u>10</u> 13	
<u>Fourth Semester</u>			
PHY101	Principles Physics	4	MTH123 or proficiency, IDS102 or proficiency
COM121	Effective Speaking	3	
FST225	Haz Mat/WMD	3	
FST226	Line Officer	<u>3</u> 13	
<b>TOTAL CREDITS</b>		<b>68</b>	

*Please be advised that this curriculum could change. 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.*

^ Based on SSC placement score.

# EMS121 is a prerequisite for EMS122. A student can waive this course by showing proof of current State of Ohio EMT-B certification. This certification is required for enrollment to the paramedic program. Must be completed with a grade of "B" or higher prior to the start of EMS122

++++ FST228 – Contact Emergency Fire Services Coordinator for equipment requirements.

+ 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.



## Health Sciences

### ASSOCIATE OF APPLIED SCIENCE

3553

### Emergency Medical Services

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
EMS121	EMT-Basic #	5		
EMS122	Paramedic I	10	BIO101, EMS121	
EMS221	Paramedic II	10	EMS122	
EMS222	Paramedic III	4	EMS221	
FST224	Legal Aspects	2		
FST225	Haz Mat/ WMD	3		
TOTAL		34		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Introduction to A&P +^	3	IDS102 or proficiency	
BIO125	Medical Terminology	3		
BUS121	Business Administration^	4	IDS102 or proficiency	
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG105 or proficiency	
HIT230	Healthcare Delivery	2		
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency	
MTH125	College Algebra^	4	MTH123 or proficiency	
OTA223	Life Span	5	ENG124	
PSY121	General Psychology^	3	IDS102 or proficiency	
TOTAL		33		
TOTAL CREDIT HOURS		67		

*Please be advised that this curriculum could change. 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.*

^ Based on SSC placement score.

# EMS121 is a prerequisite for EMS122. A student can waive this course by showing proof of current State of Ohio EMT-B certification. This certification is required for enrollment to the paramedic program. Must be completed with a grade of "B" or higher prior to the start of EMS122

+ 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.

Reviewed 3/2012  
Revised 2/2012

FULL-TIME STUDENT - ADVISING NOTES

3553

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

## **Emergency Medical Services** **Effective Summer 2012**

<u>Summer</u>		Credit Hours	Pre- and Co-requisites
EMS121	EMT-Basic #	5	
BIO101	Intro to A&P+ ^	<u>3</u>	IDS102 or proficiency or HS BIo
		8	
<u>First Semester</u>			
EMS122	Paramedic I	10	BIO101, EMS121
ENG124	College Composition^	<u>3</u>	ENG105 or proficiency
		13	
<u>Second Semester</u>			
MTH125	College Algebra^	4	MTH123 or proficiency
EMS221	Paramedic II	10	EMS122
FST224	Legal Aspects	<u>2</u>	
		16	
<u>Summer</u>			
EMS222	Paramedic III	4	EMS221
<u>Third Semester</u>			
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency
PSY121	General Psychology^	3	IDS102 or proficiency
BIO125	Medical Terminology	3	
HIT230	Healthcare Delivery	<u>2</u>	
		11	
<u>Fourth Semester</u>			
BUS121	Business Administration^	4	IDS102 or proficiency
OTA223	Life Span	5	ENG124
FST225	Haz Mat/WMD	3	
COM121	Effective Speaking	<u>3</u>	
		15	
	<b>TOTAL CREDITS</b>	<b>67</b>	

*Please be advised that this curriculum could change. 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.*

^ Based on SSC placement score.

# EMS121 is a prerequisite for EMS122. A student can waive this course by showing proof of current State of Ohio EMT-B certification. This certification is required for enrollment to the paramedic program. Must be completed with a grade of "B" or higher prior to the start of EMS122

+ 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.

Reviewed 3/2012  
Revised 2/2012



# Health Sciences

## ASSOCIATE OF APPLIED SCIENCE

3051

### Health Information Management

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HIT121	Health Data Management and Delivery Systems	4		
HIT123	Healthcare Legal and Ethical Issues	2	Co-HIT121	
HIT124	Clinical Classification Systems I	4	HIT121, BIO122 or BIO123, Co-BIO124	
HIT122	Alternative Health Records & Registries	3	HIT121	
HIT221	Clinical Classification Systems II	3	HIT124, BIO222	
HIT222	Healthcare Statistics and Research	3	HIT122, HIT224, Co-HIT224	
HIT223	HIM Supervision Concepts and Practices	3	HIT224, Co-ENG222	
HIT224	Quality Management in Healthcare	2	Co-HIT222	
HIT226	Professional Practice Experience I/Seminar I	4	Department Chair Approval	
HIT227	Professional Practice Experience II/Seminar II	4	Department Chair Approval	
HIT229	Health Information Systems and Technology	3	HIT224, ITD122	
HIT232	Healthcare Reimbursement Methodologies	2	HIT124	
HIT233	Clinical Classification Systems III	2	HIT124	
<b>TOTAL</b>		<b>39</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO123	Principles of Human Structure and Function#+	5	BIO101 or BIO121 or BIO127 or HS bio	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO222	Pharmacology	3	BIO122 or BIO123	
ENG124	College Composition^	3	ENG105 or proficiency	
ENG222	Health Information Writing	3	ENG124; Co-HIT223	
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency	
MTH222	Statistics^	3	MTH123 or proficiency	
COM121 Or COM122	Effective Speaking or Interpersonal Communication	3		
PSY121 Or SOC121	General Psychology^ or Sociology^	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^Based on SSC placement scores

+ 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 may be substituted for BIO123

*Please be advised that this curriculum could change. 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.*

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
ITD 122	Computer Applications for Professionals^	3	ITD100 or proficiency
HIT 121	Health Data Management and Delivery Systems	4	
HIT 123	Health Care Legal and Ethical Issues	2	Co-HIT121
BIO 123	Principles of Human Structure & Function#+	5	BIO101 or BIO121 or BIO127 or HS bio
BIO 125	Medical Terminology	<u>3</u>	
		17	
<u>Second Semester</u>			
HIT122	Alternative Health Records & Registries	3	HIT121
HIT 124	Clinical Classification Systems I	4	HIT121, BIO122 or BIO123, Co-BIO124
BIO 124	Human Diseases	3	BIO122 or BIO123
ENG 124	College Composition^	3	ENG105 or proficiency
BIO 222	Pharmacology	<u>3</u>	BIO122 or BIO123
		16	
<u>Summer</u>			
MTH 222	Statistics^	3	MTH123 or proficiency
COM121 or	Effective Speaking		
COM122	Interpersonal Communication	3	
PSY121 or	General Psychology^		IDS102 or proficiency
SOC121	Sociology^	<u>3</u>	
		9	
<u>Third Semester</u>			
HIT 221	Clinical Classification Systems II	3	HIT124, BIO222
HIT 222	Healthcare Statistics and Research	3	HIT122, HIT224, Co-HIT224
HIT 224	Quality Management in Healthcare	2	Co-HIT222
HIT 226	Professional Practice Experience I/Seminar I	4	
HIT 232	Health Care Reimbursement Methodologies	<u>2</u>	HIT124
		14	
<u>Fourth Semester</u>			
ENG 222	Health Information Writing	3	ENG124, Co-HIT223
HIT 223	HIM Supervision: Concepts and Practices	3	HIT224, Co-ENG222
HIT 227	Professional Practice Experience II/ Seminar II	4	
HIT 229	Health Information Systems and Technology	3	HIT224, ITD122
HIT 233	Clinical Classification Systems III	<u>2</u>	HIT124
		15	
<b>TOTAL CREDITS</b>		<b>71</b>	

^Based on SSC placement scores

+ 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 may be substituted for BIO123

*Please be advised that this curriculum could change. 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.*



## Health Sciences One Year Certificate

### Medical Coding Certificate Program

#### Afternoon/Night Track

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
HIT121	Health Data Management and Delivery Systems	4		
HIT123	Healthcare Legal and Ethical Issues	2	Co-HIT121	
HIT124	Clinical Classification System I	4	HIT121; BIO122 or BIO123; Co-BIO124	
HIT221	Clinical Classification Systems II +++	3	HIT124, BIO222	
HIT233	Clinical Classification Systems III +++	2	HIT124	
HIT231	Coding Professional Practice Experience/Seminar # +++	2	HIT124	
HIT232	Healthcare Reimbursement Methodologies	2	HIT124	
<b>TOTAL</b>		<b>19</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO123	Principles of Human Structure and Function+	5	BIO101 or BIO121 or BIO127 or HS Bio	
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	
<b>TOTAL</b>		<b>17</b>		
<b>TOTAL CREDIT HOURS</b>		<b>36</b>		

^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.

# The coding professional practice experience is on campus in our virtual lab.

+++ The summer semester courses are accelerated and the schedule is rigorous.

*Please be advised that this curriculum could change. 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 ADVISING NOTES**

**3055**

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

### **Medical Coding Certificate Program**

#### **Afternoon/Night Track**

#### **Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
HIT121	Health Data Management and Delivery Systems	4	
HIT123	Healthcare Legal and Ethical Issues	2	Co-HIT121
BIO123	Principles of Human Structure and Function	5	BIO101 or BIO121 or BIO127
BIO125	Medical Terminology	<u>3</u>	
		14	
<u>Second Semester</u>			
ITD122	Computer Applications for Professionals	3	ITD100 or proficiency
HIT124	Clinical Classification System I	4	HIT121; BIO122 or BIO123; Co-BIO124
BIO124	Human Diseases	3	BIO122 or BIO123
BIO222	Pharmacology	3	BIO121 or BIO123
HIT232	Healthcare Reimbursement Methodologies	<u>2</u>	HIT124
		15	
<u>Summer</u>			
HIT221	Clinical Classification Systems II+++	3	BIO222; Co-HIT124
HIT233	Clinical Classification Systems III +++	2	
HIT231	Coding Professional Practice Experience/Seminar #+++	<u>2</u>	HIT124
		7	
<b>TOTAL CREDITS</b>		<b>36</b>	

^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.

# The coding professional practice experience is on campus in our virtual lab.

+++ The summer semester courses are accelerated and the schedule is rigorous.

*Please be advised that this curriculum could change. 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.*







## Health Sciences Division

### ASSOCIATE OF TECHNICAL STUDIES

3450

### Massage Therapy – Fall Start

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121, MAS123	
MAS123	Massage Therapy Anatomy and Physiology I	1		
MAS124	Massage Therapy Anatomy & Physiology II	2	MAS123, Co-BIO122	
MAS223	Massage Therapy Review	3	BIO122 or BIO123, Co-MAS226	
MAS224	Massage Therapy III	4		
MAS225	Massage Therapy IV	2	MAS 224	
MAS226	Massage Therapy V	3	MAS124, MAS225	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	Co-MAS225	
MAS229	Clinic Operations	2	MAS225	
<b>TOTAL</b>		<b>28</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC121	Principles of Accounting	4	None	
BIO121	Anatomy & Physiology I+	4	BIO101 or BIO123 or BIO127	
BIO122	Anatomy & Physiology II	4	BIO121	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3	None	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or proficiency	
MGT121	Principles of Management	3	BUS121	
MKT121	Principles of Marketing	3	BUS121	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or proficiency	
PSY222	Psychological Aspects of Therapy <sup>^</sup>	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>41</b>		
<b>TOTAL CREDIT HOURS</b>		<b>69</b>		

\*Students who begin taking technical courses summer 2013 and after will be required to take MTH125 College Algebra. Students entering this program prior to summer 2013 should take BUS124 Business Analysis with Algebra instead of MTH125 College Algebra.

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

<sup>^</sup>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.

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Massage Therapy – Effective Summer 2013****Summer 2012 – Spring 2013**

<u>Fall</u>		Credit Hours	Pre- and Co-requisites
MAS121	Massage Therapy I	6	
BIO121	Anatomy & Physiology I	4	BIO101 or BIO123 or BIO127
BUS121	Business Administration	4	IDS102 or proficiency
ENG 124	College Composition <sup>^</sup>	3	ENG105 or proficiency
MAS123	Massage Therapy Anatomy & Physiology I	<u>1</u>	
		18	
<u>Spring</u>			
MAS122	Massage Therapy II	2	MAS121, MAS123
BIO122	Anatomy & Physiology II	4	BIO121
MAS124	Massage Therapy A&P II	2	MAS123, Co-BIO 122
PSY222	Psychological Aspects of Therapy	3	IDS102 or proficiency
MAS224	Massage Therapy III	<u>4</u>	
		15	
<u>Summer</u>			
BIO124	Human Diseases	3	BIO122 or BIO123
BIO125	Medical Terminology	3	None
MAS225	Massage Therapy IV	2	MAS224
MAS228	Professional Practice and Evaluation	<u>1</u>	Co-MAS225
		9	
<u>Fall</u>			
MTH125	College Algebra	4	MTH123 or proficiency
MAS223	Massage Therapy Review	3	BIO 122 or BIO123, Co-MAS226
MAS226	Massage Therapy V	3	MAS124, MAS 225
MAS227	Massage Therapy Procedures	2	MAS121
MAS229	Clinic Operations	<u>2</u>	MAS225
		14	
<u>Spring</u>			
ITD122	Computer Applications for Professionals	3	Passing score on the Computer Entrance Test or ITD100
MKT121	Principles of Marketing	3	BUS121
ACC121	Principles of Accounting	4	None
MGT121	Principles of Management	<u>3</u>	BUS121
		13	

**TOTAL CREDITS****69**

\*Students who begin taking technical courses summer 2013 and after will be required to take MTH125 College Algebra. Students entering this program prior to summer 2013 should take BUS124 Business Analysis with Algebra instead of MTH125 College Algebra.

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

<sup>^</sup>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.

Reviewed 3/2012

Revised 2/2012



## Health Sciences Division ASSOCIATE OF TECHNICAL STUDIES

### Massage Therapy – Spring Start Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	BIO121, MAS123	
MAS123	Massage Therapy Anatomy & Physiology I	1		
MAS124	Massage Therapy Anatomy and Physiology II	2	MAS123, Co-BIO122	
MAS223	Massage Therapy Review	3	BIO122,co- MAS226	
MAS224	Massage Therapy III	4	MAS122	
MAS225	Massage Therapy IV	2	MAS224	
MAS226	Massage Therapy V	3	MAS225,MAS124	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	Co-MAS225	
MAS229	Clinic Operations	2	MAS225	
<b>TOTAL</b>		<b>28</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC121	Principles of Accounting	4		
BIO121	Anatomy & Physiology I+	4	BIO101 or HS Bio	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BUS121	Business Administration^	4	IDS102 or proficiency	
ENG124	College Composition^	3	ENG105 or proficiency	
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency	
MGT121	Principles of Management	3	BUS121	
MKT121	Principles of Marketing	3	BUS121	
MTH125	College Algebra*^	4	MTH123 or proficiency	
PSY222	Psychological Aspects of Therapy^	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>41</b>		
<b>TOTAL CREDIT HOURS</b>		<b>69</b>		

\*Students who begin taking technical courses summer 2013 and after will be required to take MTH125 College Algebra. Students entering this program prior to summer 2013 should take BUS124 Business Analysis with Algebra instead of MTH125 College Algebra.

*Please be advised that this curriculum could change. 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.*

^Based on SSC placement scores

+ 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.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Massage Therapy – Spring Start**  
**Effective Summer 2012**

<u>Spring</u>		Credit Hours	Pre- and Co-requisites
MAS121	Massage Therapy I	6	
BIO121	Anatomy & Physiology I+	4	BIO101 or HS Bio
BUS121	Business Administration^	4	IDS102 or proficiency
MTH125	College Algebra*	4	MTH123 or proficiency
MAS123	Massage Therapy A&P I	<u>1</u>	
		19	
<u>Summer</u>			
ITD122	Computer Applications for Professionals^	3	ITD100 or proficiency
MAS122	Massage Therapy II	2	MAS121, MAS123
ENG124	College Composition^	3	ENG105 or proficiency
BIO125	Medical Terminology	<u>3</u>	
		11	
<u>Fall</u>			
BIO122	A&P II	4	BIO121
MAS124	Massage Therapy A&P II	2	MAS121, Co-BIO122
PSY222	Psychological Aspects of Therapy^	3	IDS102 or proficiency
MAS224	Massage Therapy III	4	MAS122
MAS225	Massage Therapy IV	2	MAS224, MAS228
MAS227	Massage Therapy Procedures	2	MAS121
MAS228	Professional Practice & Evaluation	<u>1</u>	Co-MAS225
		18	
<u>Spring</u>			
BIO124	Human Diseases	3	BIO122 or BIO123
MAS223	Massage Therapy Review	3	BIO122, co-MAS226
MAS226	Massage Therapy V	3	MAS225, MAS124
MAS229	Clinic Operations	<u>2</u>	MAS225
		11	
<u>Summer</u>			
ACC121	Principles of Accounting	4	
MGT121	Principles of Management	3	BUS121
MKT121	Principles of Marketing	<u>3</u>	BUS121
		10	
<b>TOTAL CREDITS</b>		<b>69</b>	

\*Students who begin taking technical courses summer 2013 and after will be required to take MTH125 College Algebra. Students entering this program prior to summer 2013 should take BUS124 Business Analysis with Algebra instead of MTH125 College Algebra.

*Please be advised that this curriculum could change. 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.*

^Based on SSC placement scores

+ 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.



## Health Sciences ASSOCIATE OF TECHNICAL STUDIES

### Massage Therapy – Wayne College

#### Fall Start

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAS 121	Massage Therapy I	6		
MAS 122	Massage Therapy II	2	MAS121,MAS123	
MAS 123	Massage Therapy Anatomy & Physiology I	1		
MAS 124	Massage Therapy Anatomy and Physiology II	2	MAS123, Co-BIO122	
MAS 223	Massage Therapy Review	3	BIO122, co-MAS 226	
MAS 224	Massage Therapy III	4	MAS122	
MAS 225	Massage Therapy IV	2	MAS224,	
MAS 226	Massage Therapy V	3	MAS225	
MAS 227	Massage Therapy Procedures	2	MAS121 or MAS124	
MAS 228	Professional Practice and Evaluation	1	Co-MAS225	
MAS 229	Clinic Operations	2	MAS225	
<b>TOTAL</b>		<b>28</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
3450:145 (MTH 125)	College Algebra*	4	(MTH 123)	
2420:170 (BUS124)	Applied Math for Business	3	(none)	
2420:104 (BUS 121)	Intro to Business in the Global Environment	3	(ENG 123 or Proficiency)	
2420:211 (ACC 121)	Basic Accounting	3	(None)	
2420:103 (MGT 121)	Essentials of Management	3	(BUS 121)	
2520:101 (MKT 121)	Essentials of Marketing	3	(BUS 121)	
3100:200 (BIO 121)	Anatomy & Physiology I	4	H.S. BIO within last 5 years	
3100:202 (BIO 122)	Anatomy & Physiology II	4	(BIO 121, MAS 122)	
3300:111 (ENG 124)	English Composition I	4	(ENG 105)	
2740:121 (BIO 124)	Study of Disease Processes	3	2740:120 (BIO 122 or BIO 123)	
BIO 125	Medical Terminology	3		
PSY 222	Psychological Aspects of Therapy^	3	IDS102 or proficiency	
ITD 122	Computer Applications for Professionals^	3	ITD 100 or proficiency	
<b>TOTAL</b>		<b>40</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

Grey denotes course held at Wayne College

\*Students who begin taking technical courses summer 2013 and after will be required to take MTH125 College Algebra. Students entering this program prior to summer 2013 should take BUS124 Business Analysis with Algebra instead of MTH125 College Algebra.

*Please be advised that this curriculum could change. 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.*

^Based on SSC placement scores

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Massage Therapy – Wayne College – Fall Start**  
**Effective Summer 2012**

<u>Fall</u>		Credit Hours	Pre- and Co-requisites
MAS 121	Massage Therapy I	6	
3100:200 (BIO 121)	Anatomy & Physiology I	4	(BIO 101)
3300:111 (ENG124)	English Composition I	4	(ENG105)
2420:104 (BUS 121)	Intro to Business in the Global Environment	3	(ENG 123 or Proficiency)
MAS 123	Massage Therapy A&P I	<u>1</u>	
		18	
<u>Spring</u>			
MAS 122	Massage Therapy II	2	MAS121
MAS 224	Massage Therapy III	4	MAS122
3100:202 (BIO 122)	Anatomy & Physiology II	4	(BIO 121)
PSY 222	Psychological Aspects of Therapy^	3	IDS102 or proficiency
MAS 124	Massage Therapy A&P II	<u>2</u>	MAS121, Co-BIO122
		15	
<u>Summer</u>			
BIO 125	Medical Terminology	3	
MAS 225	Massage Therapy IV	2	MAS224
MAS 228	Professional Practice & Evaluation	<u>1</u>	Co-MAS225
		6	
<u>Fall</u>			
MAS 223	Massage Therapy Review	3	BIO122, co-MAS226
MAS 226	Massage Therapy V+	3	MAS225, MAS124
MAS 227	Massage Therapy Procedures	2	MAS121
2740:121 (BIO 124)	Study of Disease Processes	3	2740:120 (BIO 122 or BIO 123)
MAS 229	Clinic Operations	<u>2</u>	MAS225
		13	
<u>Spring</u>			
2420:211 (ACC 121)	Basic Accounting	3	(None)
2420:103 (MGT 121)	Essentials of Management	3	(BUS 121)
2520:101 (MKT 121)	Essentials of Marketing	3	(BUS 121)
ITD 122	Computer Applications for Professionals^	3	ITD 100 or proficiency
3450:145 (MTH 125)	College Algebra*	<u>4</u>	(MTH 123)
2420:145(BUS124)	Applied Math for Business	3	None
		16	
<b>TOTAL CREDITS</b>		<b>68</b>	

\*Students who begin taking technical courses summer 2013 and after will be required to take MTH125 College Algebra. Students entering this program prior to summer 2013 should take BUS124 Business Analysis with Algebra instead of MTH125 College Algebra.

*Please be advised that this curriculum could change. 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.*

^Based on SSC placement scores

Reviewed 3/2012  
Revised 2/2012

Grey denotes course held at Wayne College.



## Health Sciences One Year Certificate

### Massage Therapy Certificate Option Fall Start Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121,MAS123	
MAS123	Massage Therapy Anatomy and Physiology I	1		
MAS124	Massage Therapy Anatomy & Physiology II	2	MAS123 Co-BIO122	
MAS223	Massage Therapy Review	3	BIO122, MAS226	
MAS224	Massage Therapy III	4	MAS122	
MAS225	Massage Therapy IV	2	MAS224, Co-MAS228	
MAS226	Massage Therapy V	3	MAS225, MAS124	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	Co-MAS225	
MAS229	Clinic Operations	2	MAS225	
TOTAL		28		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy & Physiology I+	4	BIO101 or HS Bio	
BIO122	Anatomy & Physiology II	4	BIO121or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
PSY222	Psychological Aspects of Therapy^	3	IDS102 or proficiency	
TOTAL		14		
TOTAL CREDIT HOURS		42		

*Please be advised that this curriculum could change. 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.*

^Based on SSC placement scores

+ 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.



Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

**Massage Therapy Certificate**  
***Effective Summer 2012***

<u>Fall</u>		Credit Hours	Pre- and Co-requisites
MAS121	Massage Therapy I	6	
BIO121	Anatomy & Physiology I+	4	BIO101 or HS Bio
MAS123	Massage Therapy Anatomy & Physiology I	1	
PSY222	Psychological Aspects of Therapy <sup>^</sup>	<u>3</u>	IDS102 or proficiency
		14	
<u>Spring</u>			
MAS122	Massage Therapy II	2	MAS121
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123
MAS124	Massage Therapy A&P II	2	MAS123, Co-BIO122
MAS224	Massage Therapy III	<u>4</u>	MAS122
		12	
<u>Summer</u>			
BIO124	Human Diseases	3	BIO122 or BIO123
MAS225	Massage Therapy IV	2	MAS224, Co-MAS228
MAS228	Professional Practice & Evaluation	<u>1</u>	Co-MAS225
		6	
<u>Fall</u>			
MAS223	Massage Therapy Review	3	BIO122, MAS226
MAS226	Massage Therapy V	3	MAS225, MAS124
MAS227	Massage Therapy Procedures	2	MAS121
MAS229	Clinic Operations	<u>2</u>	MAS225
		10	
<b>TOTAL CREDITS</b>		<b>42</b>	

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

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

+ 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.



## Health Sciences One Year Certificate

### Massage Therapy Certificate Option Spring Start Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121, MAS123	
MAS123	Massage Therapy Anatomy and Physiology I	1		
MAS124	Massage Therapy Anatomy and Physiology II	2	MAS123, Co-BIO122	
MAS223	Massage Therapy Review	3	BIO122, MAS226	
MAS224	Massage Therapy III	4	MAS122	
MAS225	Massage Therapy IV	2	MAS224, Co-MAS228	
MAS226	Massage Therapy V	3	MAS225, MAS124	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	Co-MAS225	
MAS229	Clinic Operations	2	MAS225	
TOTAL		28		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy & Physiology I	4	BIO101 or HS Bio	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
PSY222	Psychological Aspects of Therapy <sup>^</sup>	3	IDS102 or proficiency	
TOTAL		14		
TOTAL CREDIT HOURS		42		

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

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

+ 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.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

**Massage Therapy Certificate**  
***Effective Summer 2012***

<u>Spring</u>		Credit Hours	Pre- and Co-requisites
MAS121	Massage Therapy I	6	
BIO121	Anatomy & Physiology	4	BIO101 or HS Bio
MAS123	Massage Therapy Anatomy & Physiology I	1	
PSY222	Psychological Aspects of Therapy^	<u>3</u>	IDS102 or proficiency
		14	
<u>Summer</u>			
MAS122	Massage Therapy II	2	MAS121, MAS123
<u>Fall</u>			
BIO122	Anatomy and Physiology II	4	BIO121 or BIO123
MAS124	Massage Therapy A&P II	2	MAS123, Co- BIO122
MAS224	Massage Therapy III	4	MAS122
MAS225	Massage Therapy IV	2	MAS224, Co-MAS228
MAS228	Professional Practice and Evaluation	<u>1</u>	Co-MAS225
		13	
<u>Spring</u>			
BIO124	Human Diseases	3	BIO122 or BIO123
MAS223	Massage Therapy Review	3	BIO122, MAS226
MAS226	Massage Therapy V	3	MAS225, MAS124
MAS227	Massage Therapy Procedures	2	MAS121
MAS229	Clinic Operations	<u>2</u>	MAS225
		13	
<b>TOTAL CREDITS</b>		<b>42</b>	

*Please be advised that this curriculum could change. 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.*

^Based on SSC placement scores

+ 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.





## Health Sciences One Year Certificate

### Massage Therapy – Wayne College

#### Certificate Fall Start

*Effective Summer 2012*

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
MAS121	Massage Therapy I	6		
MAS122	Massage Therapy II	2	MAS121, MAS123	
MAS123	Massage Therapy Anatomy and Physiology I	1		
MAS124	Massage Therapy Anatomy and Physiology II	2	MAS123, Co-BIO122	
MAS223	Massage Therapy Review	3	BIO122, MAS226	
MAS224	Massage Therapy III	4	MAS122	
MAS225	Massage Therapy IV	2	MAS224, Co-MAS228	
MAS226	Massage Therapy V+	3	MAS225, MAS124	
MAS227	Massage Therapy Procedures	2	MAS121	
MAS228	Professional Practice and Evaluation	1	Co-MAS225	
MAS229	Clinic Operations	2	MAS225	
<b>TOTAL</b>		<b>28</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
3100:200 (BIO121)	Anatomy & Physiology I	4	H.S. Biology within last 5 years (BIO101)	
3100:200 (BIO122)	Anatomy & Physiology II	4	3100:200 MAS122 (BIO121)	
2740:121 (BIO124)	Study of Disease Processes (Pathophysiology)	3	2740:120 (BIO122 or BIO123)	
PSY222	Psychological Aspects of Therapy <sup>^</sup>	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>14</b>		
<b>TOTAL CREDIT HOURS</b>		<b>42</b>		

Grey denotes course held at Wayne.

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

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

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Massage Therapy Certificate – Wayne College – Fall Start**  
**Effective Summer 2012**

<u>Fall</u>		Credit Hours	Pre- and Co-requisites
MAS121	Massage Therapy I	6	
3100:200 (BIO121)	Anatomy & Physiology	4	H.S. Biology within last 5 years (BIO101)
MAS123	Massage Therapy Anatomy & Physiology I	1	
PSY222	Psychological Aspects of Therapy^	3	IDS102 or proficiency
		14	
<u>Spring</u>			
MAS122	Massage Therapy II	2	MAS121, MAS123
MAS224	Massage Therapy III	4	MAS122
3100:202 (BIO122)	Anatomy and Physiology II	4	3100:200, MAS122 (BIO122)
MAS124	Massage Therapy A&P II	2	MAS123, Co-BIO122
		12	
<u>Summer</u>			
MAS225	Massage Therapy IV	2	MAS224, Co-MAS229
MAS228	Professional Practice and Evaluation	1	Co-MAS225
2740:121 (BIO124)	Study of Disease Processes (Pathophysiology)	3	2740:120 (BIO122 or BIO123)
		6	
<u>Fall</u>			
MAS223	Massage Therapy Review	3	BIO122, MAS226
MAS226	Massage Therapy V+	3	MAS225, MAS124
MAS227	Massage Therapy Procedures	2	MAS121
MAS229	Clinic Operations	2	MAS225
		10	
<b>TOTAL CREDITS</b>		<b>42</b>	

+ MAS230 by permission

Grey denotes course held at Wayne.

*Please be advised that this curriculum could change. 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.*

^Based on SSC placement scores



# Health Sciences Division

## ASSOCIATE OF APPLIED SCIENCE

**3101**

### Medical Assisting

#### DAY TRACK

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MAT121	Medical Assisting I	5		
MAT122	Medical Assisting II	5	MAT121	
MAT123	Medical Assisting III	2	MAT122	
MAT124	Medical Office Procedures I	3	MAT121	
MAT221	Medical Laboratory Procedures	3	MAT122	
MAT222	Insurance for Medical Assisting	3	MAT122,MAT124	
MAT223	Office Procedures II	4	MAT122, ENG124,MAT124 and (MTH101 or Proficiency)	
MAT224	Pharmacology/Administration of Medications	4	MAT122	
MAT225	Emergency Medical Procedures	2	MAT122	
MAT226	Medical Office Management/Law	3	MAT122	
MAT227	Medical Assisting Practicum	2	Co-MAT123	
MAT233	Seminar	1	Co-MAT123	
<b>TOTAL</b>		<b>37</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
BIO101	Introduction to Anatomy & Physiology+^	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
GER121	Introduction to Gerontology	3		
HTH101	Student Success Health Seminar	1		
MTH222	Statistics^	3	MTH123 or Proficiency	
PSY121	General Psychology^	3	IDS102 or Proficiency	
PSY123	Human Growth and Development	3	PSY121	
<b>TOTAL</b>		<b>28</b>		
Elective*		<b>3</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^ Based on SSC placement scores

\*Choose from MAT230 or MAT232

+ 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.

*Please be advised that this curriculum could change. 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.*

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Medical Assisting – Day Track**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BIO101	Introduction to Anatomy & Physiology^	3	IDS102 or Proficiency
HTH101	Student Success Health Seminar	1	
MAT121	Medical Assisting I	5	
BIO125	Medical Terminology	3	
GER121	Introduction to Gerontology	<u>3</u>	
		15	
<u>Second Semester</u>			
MTH222	Statistics^	3	MTH123 or Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
PSY121	General Psychology^	3	IDS102 or proficiency
MAT122	Medical Assisting II	5	MAT121
MAT124	Medical Office Procedures I	<u>3</u>	MAT121
		17	
<u>Third Semester (Summer)</u>			
COM121	Effective Speaking	3	
PSY123	Human Growth and Development	3	PSY121
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		9	
<u>Fourth Semester</u>			
MAT221	Medical Lab. Procedures	3	MAT122
MAT222	Insurance for Medical Assisting	3	MAT122, MTH 124
MAT223	Office Procedures II	4	MAT122, ENG124, (MTH101 or Proficiency)
MAT224	Pharmacology/Administration of Medications	<u>4</u>	MAT122
		14	
<u>Fifth Semester</u>			
MAT123	Medical Assisting III	2	MAT122
MAT225	Emergency Medical Procedure	2	MAT122
MAT226	Medical Office Management/Law	3	MAT122
MAT227	Medical Assisting Practicum	2	Co-MAT123
MAT233	Seminar	<u>1</u>	Co-MAT123
		10	
	Elective*	3	
	<b>TOTAL CREDITS</b>	<b>68</b>	

^ Based on SSC placement scores

\*Choose from MAT230 or MAT232

+ Because of the strong emphasis on science in this major, applicants must have successfully completed 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. *Please be advised that this curriculum could change. 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.*

Reviewed 3/2012  
Revised 2/2012





## Health Sciences Division ASSOCIATE OF APPLIED SCIENCE

**3101**

### **Medical Assisting**

#### **NIGHT TRACK**

**Effective Summer 2012**

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
MAT121	Medical Assisting I	5		
MAT122	Medical Assisting II	5	MAT121	
MAT123	Medical Assisting III	2	MAT122	
MAT124	Medical Office Procedures I	3	MAT121	
MAT221	Medical Laboratory Procedures	3	MAT122	
MAT222	Insurance for Medical Assisting	3	MAT122, MAT124	
MAT223	Office Procedures II^	4	MAT122, ENG124, (MTH101 or Proficiency)	
MAT224	Pharmacology/Administration of Medications	4	MAT122	
MAT225	Emergency Medical Procedures	2	MAT122	
MAT226	Medical Office Management/Law	3	MAT122	
MAT227	Medical Assisting Practicum	2	Co-MAT123	
MAT233	Seminar	1	Co-MAT123	
<b>TOTAL</b>		<b>37</b>		

<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
BIO101	Introduction to Anatomy & Physiology^+	3	IDS102 or Proficiency	
BIO125	Medical Terminology	3		
COM121	Effective Speaking	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
GER121	Introduction to Gerontology	3		
HTH101	Student Success Health Skills	1		
MTH222	Statistics^	3	MTH123 or Proficiency	
PSY121	General Psychology^	3	IDS102 or Proficiency	
PSY123	Human Growth and Development	3	PSY121	
<b>TOTAL</b>		<b>28</b>		
Elective*		<b>3</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^ Based on SSC placement scores

\*Choose from MAT230 or MAT232

+ 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.

*Please be advised that this curriculum could change. 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.*

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Medical Assisting-Night Track****Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BIO101	Introduction to Anatomy & Physiology^	3	IDS102 or Proficiency
HTH101	Student Success Health Skills	1	
MAT121	Medical Assisting I	5	
BIO125	Medical Terminology	3	
GER121	Introduction to Gerontology	<u>3</u>	
		15	
<u>Second Semester</u>			
MTH222	Statistics^	3	MTH123or Proficiency
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
MAT122	Medical Assisting II	5	MAT121
MAT124	Medical Office Procedures I	<u>3</u>	MAT121
		14	
<u>Third Semester (Summer)</u>			
COM121	Effective Speaking	3	
PSY123	Human Growth and Development	3	PSY121
ENG124	College Composition^	<u>3</u>	ENG105
		9	
<u>Fourth Semester</u>			
PSY121	General Psychology^	3	IDS102 or proficiency
MAT221	Medical Lab. Procedures	3	MAT122
MAT222	Insurance for Medical Assisting	3	MAT122, MAT124
MAT223	Office Procedures II	<u>4</u>	MAT122,ENG124, (MTH101 or Proficiency)
		13	
<u>Fifth Semester</u>			
MAT123	Medical Assisting III	2	MAT122
MAT224	Pharmacology/Administration of Medications	4	MAT122
MAT225	Emergency Medical Procedure	2	MAT122
MAT226	Medical Office Management/Law	3	MAT122
MAT227	Medical Assisting Practicum	2	Co-MAT123
MAT233	Seminar	<u>1</u>	Co-MAT123
		14	
	Elective*	3	
	<b>TOTAL CREDITS</b>	<b>68</b>	

^ Based on SSC placement scores

\*Choose from MAT230 or MAT232

+ 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.

*Please be advised that this curriculum could change. 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.*



## Health Sciences

### ASSOCIATE OF TECHNICAL STUDIES

3502

### Medical Instrument Sterilization Technician

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MIS121	Medical Instrument Sterilization I/Seminar	4	Co-BIO101, Co-BIO125	
MIS122	Medical Instrument Sterilization II/Seminar	6	MIS121	
MIS123	Intro to Surgical Terminology/Microbiology	3	MIS121	
MIS221	Medical Instrument Sterilization III/Seminar	6	MIS122, MIS123	
<b>TOTAL</b>		<b>19</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Intro to Anatomy & Physiology +^	3	IDS102 or proficiency	
BIO123	Principles of Human Structure and Function	5	BIO101 or BIO121 or BIO127	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO221	Principles of Microbiology	4	BIO122 or BIO123 or BIO141	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
ENG124	College Composition ^	3	ENG105 or proficiency	
IDS115	College Success Skills	3		
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency	
MTH222 or MTH125	Statistics or College Algebra^	3/4	MTH123 or proficiency	
PSY121	General Psychology ^	3	IDS102 or proficiency	
SOC121	Sociology ^	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>42/43</b>		
<b>TOTAL CREDIT HOURS</b>		<b>61/62</b>		

^Based on SSC placement scores

+ 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.

*Please be advised that this curriculum could change. 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.*

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Medical Instrument Sterilization**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BIO101	Intro to A&P ^+	3	IDS102 or proficiency
IDS115	College Success Skills	3	
MIS121	Medical Instrument Sterilization I/Seminar	4	Co-BIO125, Co-BIO101
BIO125	Medical Terminology	<u>3</u>	
		13	
<u>Second Semester</u>			
MIS122	Medical Instrument Sterilization II/Seminar	6	MIS121
BIO123	Principles of Human Structure and Function	5	BIO101 or BIO121 or BIO127
MIS123	Introduction to Surgical Terminology/Microbiology	3	MIS121
ENG124	College Composition ^	<u>3</u>	ENG105 or proficiency
		17	
<u>Summer</u>			
MIS221	Medical Instrument Sterilization III/Seminar	6	MIS122, MIS123
<u>Third Semester</u>			
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency
PSY121	General Psychology ^	3	IDS102 or proficiency
COM122	Interpersonal Communication	3	
BIO124	Human Diseases	<u>3</u>	BIO122 or BIO123
		12	
<u>Fourth Semester</u>			
SOC121	Sociology ^	3	IDS102 or proficiency
COM121	Effective Speaking^	3	
BIO221	Principles of Microbiology	4	BIO122 or BIO123 or BIO141
MTH222 or	Statistics or College Algebra^	<u>3/4</u>	MTH123 or proficiency
MTH125		13/14	
<b>TOTAL CREDITS</b>		<b>61/62</b>	

^Based on SSC placement scores

+ 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.

*Please be advised that this curriculum could change. 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.*



## Health Sciences One Year Certificate

### Medical Instrument Sterilization Technician Certificate Program

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MIS121	Medical Instrument Sterilization I/Seminar	4	Co-BIO125;Co- BIO101	
MIS122	Medical Instrument Sterilization II/Seminar	6	MIS121	
MIS123	Intro to Surgical Terminology/Microbiology	3	MIS121	
MIS221	Medical Instrument Sterilization III/Seminar	6	MIS122; MIS123	
TOTAL		19		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Intro to Anatomy & Physiology +^	3	IDS102 or Proficiency	
IDS115	College Success Skills	3		
ENG124	College Composition ^	3	ENG105 or Proficiency	
BIO125	Medical Terminology	3		
TOTAL		12		
TOTAL CREDIT HOURS		31		

^Based on SSC placement scores

+ 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.

*Please be advised that this curriculum could change. 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.*

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 one year.

**Medical Instrument Sterilization**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BIO101	Into to A&P +^	3	IDS102 or Proficiency
IDS115	College Success Skills	3	
MIS121	Medical Instrument Sterilization I/Seminar	4	Co-BIO125;Co- BIO101
BIO125	Medical Terminology	<u>3</u> 13	
<u>Second Semester</u>			
MIS122	Medical Instrument Sterilization II/Seminar	6	MIS121
MIS123	Introduction to Surgical Terminology/Microbiology	3	MIS121
ENG124	College Composition ^	<u>3</u> 12	ENG105 or Proficiency
<u>Summer</u>			
MIS221	Medical Instrument Sterilization III/Seminar	6	MIS122; MIS123
<b>TOTAL CREDITS</b>		31	

^Based on SSC placement scores

+ 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.

*Please be advised that this curriculum could change. 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.*



## Health Sciences Division ASSOCIATE OF APPLIED SCIENCE

3301

### Medical Laboratory

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MLT121	Fundamentals of Lab Techniques	3		
MLT122	Urinalysis and Body Fluids	3	MLT124	
MLT123	Hematology I	3		
MLT124	Hematology II	4	MLT123	
MLT125	Immunohematology	5	MLT126	
MLT126	Clinical Immunology/Serology	3		
MLT222	Clinical Chemistry	5	BIO121 or BIO123	
MLT223	Clinical Microbiology	7	BIO221, MLT126	
MLT225	MLT Applications	3	MLT223	
MLT226	Directed Practice	6	MLT225, Co-MLT227	
MLT227	Seminar	1	MIT223, Co-MLT226	
TOTAL		43		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO123	Principles of Human Structure & Function+	5	BIO101 or BIO121 or HS Bio	
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141	
CHM121	General, Organic, & Biological Chemistry I	4	CHM101 or proficiency	
CHM122	General, Organic & Biological Chemistry II	4	CHM121	
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
	Elective ***	2		
	Social Science Elective**	3		
TOTAL		28		
TOTAL CREDIT HOURS		71		

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

\*\* PSY121 or SOC121 or other substitution with permission

\*\*\*Elective per an advisor. Suggest 2 of the following 1 credit hour courses: AOT102, AOT105, AOT104, AOT106, or HIT230 (2 cr hr).

+ Anatomy and Physiology I and II (BIO121, 122) may be substituted. 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.

*Please be advised that this curriculum could change. 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.*

Reviewed 3/2012  
Revised 2/2012

FULL-TIME STUDENT - ADVISING NOTES

3301

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

### **Medical Laboratory Technology** **Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BIO123	Principles of Human Structure and Function+	5	BIO101 or BIO121
CHM121	General, Organic, Biological Chemistry I	4	CHM101 or HS Chem
MLT121	Fundamentals of Laboratory Techniques	3	
MLT126	Clinical Immunology/Serology	3	
MLT123	Hematology I	<u>3</u>	
		18	
<u>Second Semester</u>			
CHM122	General, Organic & Biological Chemistry II	4	CHM121
MTH222	Statistics	3	MTH123
ENG124	College Composition^	3	ENG105
MLT124	Hematology II	4	MLT123
MLT125	Immunohematology	<u>5</u>	MLT126
		19	
<u>Summer</u>			
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141
MLT122	Urinalysis and Body Fluids	3	MLT124
	Elective***	<u>2</u>	
		9	
<u>Fourth Semester</u>			
	Social Science Elective**	3	
MLT222	Clinical Chemistry	5	BIO123, BIO121, CHM122, MLT122
MLT223	Clinical Microbiology	<u>7</u>	BIO221, MLT126
		15	
<u>Fifth Semester</u>			
MLT225	MLT Applications	3	MLT223
MLT226	Directed Practice	6	MLT225, Co-MLT227
MLT227	Seminar	<u>1</u>	MLT223, Co-MLT226
		10	
<b>TOTAL CREDITS</b>		<b>71</b>	

^Based on SSC placement scores

\*\* PSY121 or SOC121 or other substitution with permission

\*\*\*Elective per an advisor. Suggest 2 of the following 1 credit hour courses: AOT102, AOT105, AOT104, AOT106, or HIT230 (2 cr hr).

+ Anatomy and Physiology I and II (BIO121, 122) may be substituted. 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.

*Please be advised that this curriculum could change. 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.*

Reviewed 3/2012  
Revised 2/2012





## Health Sciences Division

### ASSOCIATE OF APPLIED SCIENCE

3352

### Nursing

#### Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NUR121	Fundamental Concepts of Nursing I	6	Admission to Program	
NUR122	Nursing Care of the Child Bearing Family#	4	BIO122, CHM122, ENG124, NUR221 or NUR225	
NUR123	Nursing Care of Children#	4	NUR122	
NUR221	Nursing Care of Persons with Alterations in Health I	6	BIO121, CHM121, NUR121, PSY121	
NUR222	Nursing Care of Persons with Alterations in Health II	8	PSY123, either NUR201 or NUR123	
NUR223	Nursing Care of Persons with Alterations in Health III++	8	NUR222, SOC121, CO- NUR224, BIO221	
NUR224	Nursing Seminar	1	BIO221, NUR222, SOC121, Co-NUR223	
<b>TOTAL</b>		<b>37</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy & Physiology I+	4	BIO101 or BIO123 or HS Bio	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123	
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141	
CHM121	General Organic & Biological Chem. I+	4	CHM101	
CHM122	General Organic & Biological Chem. II	4	CHM121	
ENG124	College Composition^	3	ENG105 or proficiency	
MTH222	Statistics^	3	MTH123 or proficiency	
PSY121	General Psychology^	3	IDS102 or proficiency	
PSY123	Human Growth & Development	3	PSY121	
SOC121	Sociology^	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>35</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

^ Based on SSC placement score.

+ 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.

# NUR 122 and NUR 123-conducted in 5-week sessions consecutively

++ Lab only conducted in 1<sup>st</sup> 8 weeks of course. 10 hour clinical for 1<sup>st</sup> 8 weeks; then 24 hours/week Please be advised that this curriculum could change. 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.

(last 7 weeks)

Please be advised that this curriculum could change. 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

**3352**

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Nursing**  
**Summer 2012 – Spring 2013**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
NUR121	Fundamental Concepts of Nursing I	6	Admission to the Program
BIO121	Anatomy & Physiology I+	4	BIO101, BIO123 or HS Bio
PSY121	General Psychology^	3	IDS102 or proficiency
CHM121	General, Organic, & Biological Chem. I+	4	CHM101 or HS Chem
		17	
<u>Second Semester</u>			
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123
CHM122	General, Organic, & Biological Chem. II	4	CHM121
ENG124	College Composition^	3	ENG105 or proficiency
NUR221	Nursing Care of Persons with Alterations in Health I	6	BIO121, CHM121, NUR121, PSY121
		17	
<u>Summer</u>			
NUR122	Nursing Care of the Child Bearing Family#	4	BIO122, CHM122, ENG124, NUR221 or NUR225
NUR123	Nursing Care of Children#	4	NUR122
PSY123	Human Growth & Development	3	PSY121
		11	
<u>Third Semester</u>			
SOC121	Sociology^	3	IDS102 or proficiency
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141
NUR222	Nursing Care of Persons with Alterations in Health II	8	PSY123, NUR201 or NUR123
		15	
<u>Fourth Semester</u>			
NUR223	Nursing Care of Persons with Alterations in Health III++	8	NUR222, SOC121, Co-NUR224, BIO221
NUR224	Nursing Seminar	1	BIO221, NUR222, SOC121, Co-NUR223
MTH222	Statistics^	3	MTH123 or proficiency
		12	
<b>TOTAL CREDITS</b>		<b>72</b>	

^ Based on SSC placement score.

+ 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.

# NUR 122 and NUR 123-conducted in 5-week sessions consecutively

++ Lab only conducted in 1<sup>st</sup> 8 weeks of course. 10 hour clinical for 1<sup>st</sup> 8 weeks; then 24 hours/week for the remainder of the semester (last 7 weeks)

*Please be advised that this curriculum could change. 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.*



## Health Sciences ASSOCIATE OF APPLIED SCIENCE

3352

### **RN Completion for LPN** **Effective Summer 2012**

A Licensed Practical Nurse (LPN) admitted to Stark State College's ADN program with Advanced Standing Admission meets the credit requirements for graduation in the following way:

- 35 credits for one calendar year curriculum
- 20 credits for nursing courses granted upon successful completion of the Transition for the LPN course
- 22 hours of prerequisite credit (see Admission Criteria and listing below):

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy & Physiology I	4	BIO101 or BIO127 (Prerequisites are waived for all LPN's seeking advanced standing admission.)	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123	
CHM121	General, Organic & Biological Chemistry I	4	CHM101	
CHM122	General, Organic & Biological Chemistry II	4	CHM121	
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>22</b>	<b>(Prerequisite credits as above)</b>	

The one calendar year curriculum is below:

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NUR201	Transition for the LPN+	5	Admission to the program	
NUR222	Nursing Care of Persons with Alterations in Health II	8	PSY123	
NUR223	Nursing Care of Persons with Alterations in Health III	8	NUR222	
NUR224	Nursing Seminar	1	BIO221, NUR222, SOC121 Co-NUR223	
<b>TOTAL</b>		<b>22</b>		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141	
MTH222	Statistics*	3	MTH123 or proficiency	
PSY123	Human Growth & Development	3	PSY121	
SOC121	Sociology	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>13</b>		
<b>TOTAL CREDIT HOURS</b>		<b>35</b>		

\*Students who begin taking technical courses summer 2014 and after will be required to take MTH222 Statistics. Students entering this program prior to summer 2014 should take ENG231 College Composition II.

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

<sup>^</sup>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.

+ NUR 201 conducted in 8-week session

++ Lab only conducted in 1<sup>st</sup> 8 weeks of course. 10 hour clinical for 1<sup>st</sup> 8 weeks; then 24 hours/week for the remainder of the semester.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**RN Completion for LPNs**  
***Effective Summer 2012***

<u>Summer</u>		Credit Hours	Pre- and Co-requisites
PSY123	Human Growth and Development^	3	PSY121
NUR201	Transition for the LPN+	<u>5</u> 8	Admission to Program
<u>Fall</u>			
SOC121	Sociology^	3	IDS102 or proficiency
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141
NUR222	Nursing Care of Persons with Alterations in Health II	<u>8</u> 15	PSY123
<u>Spring</u>			
NUR223	Nursing Care of Persons with Alterations in Health III++	8	BIO221, SOC121, NUR221, Co-NUR224
NUR224	Nursing Seminar	1	BIO221, NUR222, SOC121, Co-NUR223
MTH222	Statistics*	<u>3</u> 12	MTH123 or proficiency
<b>TOTAL CREDITS</b>		<b>35</b>	

\*Students who begin taking technical courses summer 2014 and after will be required to take MTH222 Statistics. Students entering this program prior to summer 2014 should take ENG231 College Composition II.

*Please be advised that this curriculum could change. 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.*

^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.

+ NUR 201 conducted in 8-week session

++ Lab only conducted in 1<sup>st</sup> 8 weeks of course. 10 hour clinical for 1<sup>st</sup> 8 weeks; then 24 hours/week for the remainder of the semester.



## Health Sciences

### ASSOCIATE OF APPLIED SCIENCE

3352

### **RN Completion for Paramedics**

*Effective Summer 2012*

A Paramedic admitted to Stark State College's ADN Program with advanced standing admission meets the credit requirements for graduation in the following way:

- 12 credits for nursing courses granted upon successful completion of the Transition for the Paramedic Course (see admissions criteria).
- 44 credits for 4 semesters of course work (see below).
- 22 hours of prerequisite credit as follows:

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO121	Anatomy & Physiology I	4	BIO101 or BIO127 (Prerequisites are waived for all Paramedics seeking advanced standing admission.) or HS Bio	
BIO122	Anatomy & Physiology II	4	BIO121 or BIO123	
CHM121	General, Organic & Biological Chemistry I	4	CHM101 or HS Chem	
CHM122	General, Organic & Biological Chemistry II	4	CHM121	
PSY121	General Psychology^	3	IDS102 or proficiency	
ENG124	College Composition^	3	ENG105 or proficiency	
<b>TOTAL</b>		<b>22</b>	<b>(Prerequisite credits as above)</b>	

The four semesters of course work are comprised of the following:

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NUR225	Transition for the Paramedic*	6	Admission to Program	
NUR122	Nursing Care of the Childbearing Family	4	NUR225, BIO122, CHM122 & ENG124	
NUR123	Nursing Care of Children	4	NUR122	
NUR222	Nursing Care of Persons with Alterations in Health II	8	PSY123	
NUR223	Nursing Care of Persons with Alterations in Health III+	8	NUR22, SOC121, BIO221, co-NUR224	
NUR224	Nursing Seminar	1	BIO221, NUR222, SOC121, Co-NUR223	
<b>TOTAL</b>		<b>31</b>		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141	
MTH222	Statistics++^	3	MTH123 or proficiency	
PSY123	Human Growth & Development	3	PSY121	
SOC121	Sociology^	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>13</b>		
<b>TOTAL CREDIT HOURS</b>		<b>44</b>		

Please be advised that this curriculum could change. 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.

^ Based on SSC placement score.

+ 10 hour clinical for 1<sup>st</sup> 8-weeks; then 24 hours/week for the remainder of the semester.

++ Students who begin taking technical courses summer 2014 and after will be required to take MTH222 Statistics.

Students entering this program prior to summer 2014 should take ENG231 College Composition II instead of MTH222 Statistics.

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.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**RN Completion for Paramedics**  
**Effective Summer 2012**

<u>Fall</u>		Credit Hours	Pre- and Co-requisites
NUR 225	Transition for the Paramedic*	6	
<u>Spring</u>			
NUR 122	Nursing Care of the Childbearing Family	4	NUR225, BIO122, CHM122, ENG124
NUR 123	Nursing Care of Children	4	NUR122
PSY 123	Human Growth and Development	<u>3</u>	PSY121
		11	
<u>Summer</u>			
SOC 121	Sociology	3	IDS102 or proficiency
BIO 221	Principles of Microbiology	4	BIO122, BIO123, or BIO141
NUR 222	Nursing Care of Persons with Alterations in Health II	<u>8</u>	PSY123
		15	
<u>Fall</u>			
NUR 223	Nursing Care of Persons with Alterations in Health III+	NUR22, SOC121, BIO221, co-NUR224 8	
			NUR222, NUR 224
	Nursing Seminar	1	BIO221, NUR222, SOC121, Co-NUR223
MTH222	Statistics++^	<u>3</u>	MTH123 or proficiency
		12	
<b>TOTAL CREDITS</b>		<b>44</b>	

*Please be advised that this curriculum could change. 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.*

^ Based on SSC placement score.

\* NUR225 conducted in 10 weeks.

+ 10 hour clinical for 1<sup>st</sup> 8-weeks; then 24 hours/week for the remainder of the semester.

++ Students who begin taking technical courses summer 2014 and after will be required to take MTH222 Statistics.

Students entering this program prior to summer 2014 should take ENG231 College Composition II instead of MTH222 Statistics.

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.



## Health Sciences

### ASSOCIATE OF APPLIED SCIENCE

3251

### Occupational Therapy Assistant

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
OTA121	Foundations of Occupational Therapy	3		
OTA122	Therapeutic Media	3	Co-OTA121	
OTA123	Psychosocial Aspects in OT	4	OTA122, OTA124, PSY121, co-PSY221	
OTA124	Psychosocial Clinical Experience	3	OTA121, Co-OTA123	
OTA221	Developmental Aspects in OT	4	BIO123or BIO122, OTA121	
OTA222	Developmental Clinical Experience	3	BIO123or BIO122, OTA124	
OTA224	OT in Physical Dysfunction	4	OTA124, Co-BIO124	
OTA225	Physical Dys. Clinical Experience	3	OTA222, Co-OTA224	
OTA226	OTA Seminar	2	OTA224, OTA225	
OTA227	Clinical Application I	3	OTA224, OTA225, co-OTA226	
OTA228	Clinical Application II	3	OTA224, OTA225, Co-OTA226	
<b>TOTAL</b>		<b>35</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO123	Principles of Human Structure & Function*	5	BIO101 or BIO121 or BIO127 or HS Bio	
BIO 124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
ENG124	College Composition^	3	ENG105 or proficiency	
MTH125 or MTH222	College Algebra or Statistics^	4/3	MTH123 or proficiency	
OTA223	Life Span Development	5	ENG124	
PSY121	General Psychology^	3	IDS102 or proficiency	
PSY221	Abnormal Psychology	3	PSY121	
PTA226	Functional Anatomy	4	BIO123 or BIO122	
SOC121	Sociology^	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>35/36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70/71</b>		

Please be advised that this curriculum could change. 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.

^ Based on SSC placement score.

\* May substitute BIO 123 with BIO 121 and BIO 122

+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.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Occupational Therapy Assistant**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
PSY121	General Psychology^	3	IDS102 or proficiency
OTA121	Foundations of Occupational Therapy	3	
OTA122	Therapeutic Media	3	Co-OTA121
ENG124	College Composition^	3	ENG105 or proficiency
BIO125	Medical Terminology	<u>3</u>	
		15	
<u>Second Semester</u>			
MTH 125 or MTH222	College Algebra or Statistics^	3/4	MTH123 or proficiency
BIO123	Principles of Human Structure and Function*	5	BIO101 or BIO121 or HS Bio
OTA123	Psychosocial Aspects in OT	4	OTA122, OTA124, PSY121, Co-PSY221
OTA124	Psychosocial Clinical Experience	3	OTA121, Co-OTA123
PSY221	Abnormal Psychology	<u>3</u>	PSY121
		18/19	
<u>Third Semester</u>			
OTA221	Developmental Aspects in OT	4	BIO123 or BIO122, OTA121
OTA222	Developmental Clinical Experience	3	BIO123 or BIO122, OTA124
OTA223	Life Span Development	5	ENG124
PTA226	Functional Anatomy	<u>4</u>	BIO123 or BIO122
		16	
<u>Fourth Semester</u>			
SOC121	Sociology^	3	IDS102 or proficiency
BIO124	Human Diseases	3	BIO122 or BIO123
OTA224	OT in Physical Dysfunction	4	OTA124, Co-BIO124
OTA225	Physical Dys. Clinical Experience	<u>3</u>	OTA222, Co-OTA224
		13	
<u>Fifth Semester</u>			
OTA226	OTA Seminar	2	OTA224, OTA225
OTA227	Clinical Application I	3	OTA224, OTA225, Co-OTA226
OTA228	Clinical Application II	<u>3</u>	OTA224, OTA225, Co-OTA226
		8	
<b>TOTAL CREDITS</b>		<b>70/71</b>	

*Please be advised that this curriculum could change. 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.*

^ Based on SSC placement score.

\* May substitute BIO 123 with BIO 121 and BIO 122

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.

Reviewed 3/2012  
Revised 2/2012





# Health Sciences

## ASSOCIATE OF APPLIED SCIENCE

3151

### *Physical Therapist Assistant*

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
PTA121	Fundamentals of Physical Therapy	4		
PTA122	Musculoskeletal Anatomy	4	BIO123 or BIO122	
PTA123	Kinesiology	4	PHY101, PTA122, co-PTA221	
PTA124	Measurement Procedures for the PTA	2	PTA123, PTA221	
PTA125	Professional Clinical Practice for the PTA	1	PTA123, PTA221	
PTA221	PTA Procedures I	5	PTA122, co- PTA123	
PTA222	PTA Procedures II	5	BIO124, PTA124, PTA125, Co-PTA228, co-PTA229	
PTA223	PTA Procedures III	2	PTA222	
PTA227	Directed Practice III	3		
PTA228	Seminar I	2	PTA124 PTA125, co-PTA222, co-PTA229	
PTA229	Directed Practice I	3	PTA124, PTA125, co-PTA222, co-PTA228	
PTA230	Seminar II	1	PTA222, PTA228, PTA229	
PTA231	Directed Practice II	2	PTA229	
<b>Total</b>		<b>38</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO123	Principles of Human Structure & Function+	5	BIO101 or BIO121 or BIO127 or HS BIO	
BIO124	Human Diseases	3	BIO123 or BIO122	
BIO125	Medical Terminology	3		
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency	
MTH125 or MTH222	College Algebra <sup>^</sup> or Statistics <sup>^</sup>	4/ 3	MTH123 or proficiency	
OTA223	Life Span Development	5	ENG124	
PHY101	Principles of Physics <sup>^</sup>	4	MTH123 or proficiency and IDS102 or proficiency	
PSY121	General Psychology <sup>^</sup>	3	IDS102 or proficiency	
PSY222	Psychological Aspects of Therapy <sup>^</sup>	3	IDS102 or proficiency	
<b>TOTAL</b>		<b>32/33</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70/71</b>		

Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.

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

+ 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.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Physical Therapist Assistant**  
**Summer 2012 – Spring 2013**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
PHY101	Principles of Physics <sup>^</sup>	4	MTH123 or proficiency and IDS102 or proficiency
PTA121	Fundamentals of Physical Therapy	4	
PTA122	Musculoskeletal Anatomy	4	BIO123 or BIO122
BIO123	Principles of Human Structure and Function+	<u>5</u>	BIO101 or BIO121 or BIO127 Or HS BIO
		17	
<u>Second Semester</u>			
MTH125 or MTH222	College Algebra <sup>^</sup> or Statistics <sup>^</sup>	4 3	MTH123 or proficiency MTH123 or proficiency
PTA123	Kinesiology	4	PHY101, PTA122, co- PTA221
BIO124	Human Diseases	3	BIO123 or BIO122
BIO125	Medical Terminology	3	
PTA221	PTA Procedures I	<u>5</u>	PTA122, co-PTA123
		18/19	
<u>Third Semester</u>			
PSY121	General Psychology <sup>^</sup>	3	IDS102 or proficiency
ENG124	College Composition <sup>^</sup>	3	ENG105 or proficiency
PTA124	Measurement Procedures for the PTA	2	PTA123, PTA221
PTA125	Professional Clinical Practice for the PTA	<u>1</u>	PTA123, PTA221
		9	
<u>Fourth Semester</u>			
PSY222	Psychological Aspects of Therapy <sup>^</sup>	3	IDS102 or proficiency
PTA222	PTA Procedures II	5	BIO124, PTA124, PTA125, Co-PTA228, co-PTA229
OTA223	Life Span Development	5	ENG124
PTA229	Directed Practice I	3	co- PTA228, PTA124 PTA125, co-PTA222
PTA228	Seminar I	<u>2</u>	PTA124, PTA125, PTA222, PTA229
		18	
<u>Fifth Semester</u>			
PTA223	PTA Procedures III	2	PTA222
PTA227	Directed Practice III	3	
PTA230	Seminar II	1	PTA222, PTA228, PTA229
PTA231	Directed Practice II	<u>2</u>	PTA229
		8	

**TOTAL CREDITS****70/71**

*Please be advised that this curriculum could change. Students are required to follow the program curriculum in effect when they begin taking technical courses, not when students are accepted to the College or program.*

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

+ 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.



## Health Sciences

### ASSOCIATE OF APPLIED SCIENCE

3202

### Respiratory Care

*Effective Summer 2012*

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
RCT121	Introduction to Respiratory Care	3		
RCT122	Medical Gas Administration	3		
RCT123	Airway Management Procedure	3	RCT121; RCT122	
RCT124	Pharmacology for R.T.	2	BIO122 or BIO123; RCT121; RCT122; RCT123	
RCT125	Clinical Practice Basic Procedures/Seminar	3	RCT121; RCT122	
RCT126	Introduction to Critical Care	3	RCT123; RCT124	
RCT127	Cardiopulmonary A & P	3	BIO122 or BIO123; RCT123; RCT124	
RCT128	Clinical Practice Airway Management/Seminar	2	RCT123; RCT124; RCT125	
RCT221	Advanced Respiratory Care Procedures	3	RCT126; RCT127	
RCT222	Respiratory Diseases	3	RCT124; RCT127	
RCT223	Patient Assessment & Monitoring	3	RCT221; RCT222	
RCT224	Clinical Practice Critical Care/Seminar	3	RCT124; RCT126; RCT127; RCT128	
RCT225	Clinical Practice Specialty Rotations/Sem.	5	RCT127; RCT221; RCT222; RCT224	
<b>TOTAL</b>		<b>39</b>		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO123	Human Structure & Function+	5	BIO101 or BIO121 or BIO127 or HS Bio	
BIO125	Medical Terminology	3		
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141	
CHM121	Gen/Org and Bio Chem I+	4	CHM101 or HS Chem	
ENG124	College Composition ^	3	ENG105 or proficiency	
ITD122	Computer Applications for Professionals ^	3	ITD100 or proficiency	
MTH125	College Algebra	4	MTH123 or proficiency	
	Social Science Elective (SOC)*	3	Some courses could have pre- requisites	
	Psychology Elective(PSY)**	3	Some courses could have pre- requisites	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

*Please be advised that this curriculum could change. 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.*

^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.

\* May select from Sociology offerings only

\*\*May select from Psychology offerings only

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**Respiratory Care**  
***Effective Summer 2012***

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
RCT121	Introduction to Respiratory Care	3	
RCT122	Medical Gas Administration	3	
MTH125	College Algebra ^	4	MTH123 or proficiency
BIO123	Human Structure & Function+	5	BIO101 or BIO121 or BIO127 Or HS Bio
BIO125	Medical Terminology	<u>3</u>	
		18	
<u>Second Semester</u>			
CHM121	Gen/Org and Bio Chem I+	4	CHM101 or HS Chem
RCT123	Airway Management Procedures	3	RCT121; RCT122
ENG124	College Composition ^	3	ENG105 or proficiency
RCT124	Pharmacology for R.T.	2	RCT121; RCT122; BIO122 or 123
RCT125	Clinical Practice Basic Procedures/Seminar	<u>3</u>	RCT121; RCT122
		15	
<u>Summer</u>			
RCT126	Introduction to Critical Care	3	RCT123; RCT124
RCT127	Cardio Pulmonary A&P	3	RCT123; RCT124; BIO122 or BIO123
RCT128	Clinical Practice Airway Management/Seminar	<u>2</u>	RCT123; RCT124; RCT125
		8	
<u>Third Semester</u>			
	Social Science Elective(SOC) * ^	3	IDS102 or proficiency
BIO221	Principles of Microbiology	4	BIO122, BIO123, or BIO141
RCT221	Advanced Respiratory Care Procedures	3	RCT126; RCT127
RCT222	Respiratory Diseases	3	RCT124; RCT127
RCT224	Clinical Practice Critical Care/Seminar	<u>3</u>	RCT124; RCT126; RCT127; RCT128
		16	
<u>Fourth Semester</u>			
	Psychology Elective (PSY)** ^	3	IDS102 or proficiency
ITD122	Computer Applications for Professionals ^	3	ITD100 or proficiency
RCT223	Patient Assessment & Monitoring	3	RCT221; RCT222
RCT225	Clinical Practice Specialty Rotations/Seminar	<u>5</u>	RCT127; RCT221; RCT222; RCT224
		14	
<b>TOTAL CREDITS</b>		<b>71</b>	

*Please be advised that this curriculum could change. 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.*

^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.

\* May select from Sociology offerings only

\*\*May select from Psychology offerings only



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

5300

### **3D GRAPHICS AND ANIMATION TECHNOLOGY**

Effective Summer 2012

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
IMT122	Graphic Arts Design	3		
IMT136	Principles of Animation	3		
IMT245	Graphic Arts Design II	3	IMT122	
IMT125	3D Graphics Modeling	3	IMT122	
IMT227	3D Graphics Animation	3	IMT136, IMT125	
IMT249	Textures & Effects for 2D & 3D Design	3	IMT125	
IMT257	Advanced Rendering	3	Co-Req IMT249	
IMT240	Advanced 3D Graphics Modeling	3	IMT125	
IMT237	Compositing	3	IMT223 or IMT125	
IMT243	Advanced Compositing	3	IMT237	
IMT258	3D Production Practicum	3	IMT240	
IMT265	Motion Graphics Portfolio	3	IMT237	
<b>TOTAL</b>		<b>36</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG227	Writing for Media	3	ENG124	
IMT121	Interactive Media	3		
IMT137	Drawing Basics	3		
MTH125	College Algebra^	4	MTH123 or Proficiency	
PHY101	Principles of Physics^	4	MTH123 or proficiency, IDS102 or proficiency	
	Select one (1) Arts/Humanities elective from the list below **	3	Some of these courses may have pre-requisites	
	Select one (1) Social Science elective from the list below *	3	Some of these courses may have pre-requisites	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^Based on SSC placement scores

\*\*Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\*Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**3D GRAPHICS AND ANIMATION TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
IMT121	Interactive Media	3	
IMT136	Principles of Animation	3	
IMT122	Graphic Arts Design	3	
IMT137	Drawing Basics	3	
ENG124	College Composition^	3	ENG105 or Proficiency
		<b>15</b>	
<u>Second Semester</u>			
IMT125	3D Graphics Modeling	3	IMT122
IMT245	Graphic Arts Design II	3	IMT122
ENG227	Writing for Media	3	ENG124
MTH125	College Algebra^	4	MTH123 or Proficiency
	Arts/Humanities Elective**	3	Some of these courses may have pre-requisites
		<b>16</b>	
<u>Summer Semester</u>			
COM121	Effective Speaking		
Or	Or		
COM123	Small-group Communications	3	ENG124
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
		<b>6</b>	
<u>Third Semester</u>			
IMT240	Advanced 3D Graphics Modeling	3	IMT125
IMT227	3D Graphics Animation	3	IMT136, IMT125
IMT249	Textures & Effects for 2D & 3D Design	3	IMT125
IMT257	Advanced Rendering	3	Co-Req IMT249
IMT237	Compositing	3	IMT223 or IMT125
		<b>15</b>	
<u>Fourth Semester</u>			
PHY101	Principles of Physics^	4	MTH123 or proficiency, IDS102 or Proficiency
IMT258	3D Production Practicum	3	IMT240
IMT265	Motion Graphics Portfolio	3	
IMT243	Advanced Compositing	3	IMT237
	Social Science Elective*	3	Some of these courses may have pre-requisites
		<b>16</b>	
<b>TOTAL CREDITS</b>		<b>68</b>	

^ Based on SSC placement scores

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED BUSINESS

2120

### **ADMINISTRATIVE OFFICE PROFESSIONAL**

Effective Summer 2012

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
AOT121	Keyboarding/Formatting	3		
AOT129	Keyboarding Skill Building	1	AOT121	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
AOT128	Desktop Publishing - Microsoft Publisher	3	ITD122 & IMT122	
ACC121	Principles of Accounting	4		
IMT122	Graphic Arts Design	3		
AOT238	Web Design for Office Professionals	3	ITD122 & IMT122	
AOT130	Communication & Transcription Skills	3		
AOT127	Word Processing - Microsoft Word	3	ITD122 & AOT121	
AOT226	Spreadsheet - Microsoft Excel	3	ITD122	
AOT236	Database Applications - Microsoft Access	3	ITD122	
AOT134	Form Design Essentials	1		
<b>TOTAL</b>		<b>33</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
AOT132	Records Management^	3	IDS102 or Proficiency	
AOT232	AOT Practicum	3	AOT226	
BUS121	Business Administration^	4	IDS102 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
ACC130	Business Law & Ethics	3		
AOT227	Administrative Procedures & Systems	3	AOT121 or AOT129 & AOT130 & ITD122	
ENG124	College Composition^	3	ENG105 or Proficiency	
SOC225	Cultural Diversity	3		
PSY121 Or SOC121	General Psychology^ Or Sociology^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
BUS221	Microeconomics^	3	IDS102 or Proficiency	
AOT107	Digital Technologies	1		
AOT 108	Microsoft Outlook	1		
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>69</b>		

^ Based on SSC placement scores

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ADMINISTRATIVE OFFICE PROFESSIONAL**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition^	3	ENG105 or Proficiency
AOT130	Communication & Transcription Skills	3	
AOT121	Keyboarding/Formatting	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
BUS121	Business Administration^	4	IDS102 or Proficiency
		16	
<u>Second Semester</u>			
AOT127	Word Processing – Microsoft Word	3	ITD122 & AOT121
ACC121	Principles of Accounting	4	
SOC225	Cultural Diversity	3	
AOT129	Keyboarding Skill Building	1	AOT121
IMT122	Graphic Arts Design	3	
AOT132	Records Management^	3	IDS102 or Proficiency
AOT134	Form Design Essentials	1	
MTH222	Statistics^	3	MTH123 or Proficiency
		21	
<u>Third Semester</u>			
AOT226	Spreadsheets – Microsoft Excel	3	ITD122
ACC130	Business Law and Ethics	3	
PSY121	General Psychology^		
Or	or		
SOC121	Sociology^	3	IDS102 or Proficiency
COM121	Effective Speaking	3	
AOT128	Desktop Publishing – Microsoft Publisher	3	ITD122 & IMT122
		15	
<u>Fourth Semester</u>			
BUS221	Microeconomics^	3	IDS102 or Proficiency
AOT227	Administrative Procedures & Systems	3	AOT121 or AOT129 & AOT130 & ITD122
AOT232	AOT Practicum	3	AOT226
AOT236	Database Applications – Microsoft Access	3	ITD122
AOT238	Web Design for Office Professionals	3	ITD122 & IMT122
AOT108	Microsoft Outlook	1	
AOT107	Digital Technologies	1	
		17	
<b>TOTAL CREDITS</b>		<b>69</b>	

^ Based on SSC placement scores





# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

2123

## ADMINISTRATIVE OFFICE PROFESSIONAL - MANAGEMENT MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting	3		
MGT121	Principles of Management	3	BUS121	
ITD122	Computer Applications for Professionals <sup>++</sup>	3	ITD100 or Proficiency	
ACC229	Computerized Accounting Applications	3	ACC121 or ACC132 or ENT123 & ITD122	
ACC121	Principles of Accounting	4		
MGT221	Supervision	3	MGT121	
ACC227	Payroll Accounting	3	ACC121 or ACC132	
AOT130	Communication & Transcription Skills	3		
AOT127	Word Processing - Microsoft Word	3	ITD122 & AOT121	
AOT226	Spreadsheet - Microsoft Excel	3	ITD122	
<b>TOTAL</b>		<b>31</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT132	Records Management <sup>^</sup>	3	IDS102 or Proficiency	
AOT232	AOT Practicum	3	AOT226	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency	
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency	
ACC130	Business Law & Ethics	3		
AOT227	Administrative Procedures & Systems	3	AOT121 or AOT129 & AOT130 & ITD122	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
SOC225	Cultural Diversity	3		
PSY121 Or SOC121	General Psychology <sup>^</sup> or Sociology <sup>^</sup>	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency	
AOT107	Digital Technologies	1		
AOT 108	Microsoft Outlook	1		
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>67</b>		

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

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ADMINISTRATIVE OFFICE PROFESSIONAL – MANAGEMENT MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition^	3	ENG105 or Proficiency
AOT130	Communication & Transcription Skills	3	
AOT121	Keyboarding/Formatting	3	
ITD122	Computer Applications for Professionals^++	3	ITD100 or Proficiency
BUS121	Business Administration^	4	IDS102 or Proficiency
		16	
<u>Second Semester</u>			
AOT127	Word Processing – Microsoft Word	3	ITD122 & AOT121
ACC121	Principles of Accounting	4	
SOC225	Cultural Diversity	3	
MGT121	Principles of Management	3	BUS121
AOT132	Records Management^	3	
MTH222	Statistics^	3	MTH123 or Proficiency
		19	
<u>Third Semester</u>			
AOT226	Spreadsheets – Microsoft Excel	3	ITD122
ACC130	Business Law and Ethics	3	
PSY121	General Psychology^		
or	or		
SOC121	Sociology^	3	IDS102 or Proficiency
MGT221	Supervision	3	MGT121
ACC227	Payroll Accounting	3	ACC121 or ACC132
AOT108	Microsoft Outlook	1	
AOT107	Digital Technologies	1	
		17	
<u>Fourth Semester</u>			
COM121	Effective Speaking	3	
BUS221	Microeconomics^	3	IDS102 or Proficiency
AOT227	Administrative Procedures & Systems	3	AOT121 or AOT129 & AOT130 & ITD122
AOT232	AOT Practicum	3	AOT226
ACC229	Computerized Accounting Applications	3	ACC121 or ACC132 or ENT123 & ITD122
		15	
	<b>TOTAL CREDITS</b>	67	

^ Based on SSC placement scores



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

2124

## **ADMINISTRATIVE OFFICE PROFESSIONAL – VIRTUAL OFFICE PROFESSIONAL** **MAJOR**

Effective Summer 2012

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
AOT121	Keyboarding/Formatting	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ACC121	Principles of Accounting	4		
IMT122	Graphic Arts Design	3		
AOT128 or AOT238	Desktop Publishing - Microsoft Publisher or Web Design for Office Professionals	3	ITD122 & IMT122	
AOT130	Communication & Transcription Skills	3		
AOT127	Word Processing - Microsoft Word	3	ITD122 & AOT121	
AOT226	Spreadsheet - Microsoft Excel	3	ITD122	
AOT236	Database Applications - Microsoft Access	3	ITD122	
AOT227	Administrative Procedures & Systems	3	AOT121 or AOT129 & AOT130 & ITD122	
AOT107	Digital Technologies	1		
AOT 108	Microsoft Outlook	1		
AOT134	Form Design Essentials	1		
<b>TOTAL</b>		<b>34</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
AOT234	AOT Special Topics	2		
BUS121	Business Administration ^	4	IDS102 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
ACC130	Business Law & Ethics	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
SOC225	Cultural Diversity	3		
PSY121 Or SOC121	General Psychology^ Or Sociology ^	3	IDS102 or Proficiency	
COM122	Interpersonal Communications	3		
BUS221	Microeconomics^	3	IDS102 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
ENT121	Entrepreneurial Marketing	3	ENT120	
ENT221	Entrepreneurial Finance	3	ENT120	
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

^ Based on SSC placement scores

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ADMINISTRATIVE OFFICE PROFESSIONAL – VIRTUAL OFFICE PROFESSIONAL****MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition^	3	ENG105 or Proficiency
AOT130	Communication & Transcription Skills	3	
AOT121	Keyboarding/Formatting	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
BUS121	Business Administration^	4	IDS102 or Proficiency
		16	
<u>Second Semester</u>			
AOT127	Word Processing – Microsoft Word	3	ITD122 & AOT121
ACC121	Principles of Accounting	4	
SOC225	Cultural Diversity	3	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency
IMT122	Graphic Arts Design	3	
MTH222	Statistics^	3	MTH123 or Proficiency
AOT134	Form Design Essentials	1	
		20	
<u>Third Semester</u>			
AOT226	Spreadsheets – Microsoft Excel	3	ITD122
ACC130	Business Law and Ethics	3	
PSY121	General Psychology^		
Or	Or		
SOC121	Sociology^	3	IDS102 or proficiency
ENT121	Entrepreneurial Marketing	3	ENT120
COM122	Interpersonal Communications	3	
AOT128	DPT-Microsoft Publisher		
Or			
AOT238	Web Design for Office Prof	3	ITD122 & IMT122
		18	
<u>Fourth Semester</u>			
BUS221	Microeconomics^	3	IDS102 or Proficiency
AOT227	Administrative Procedures & Systems	3	AOT121 or AOT129 & AOT130 & ITD122
AOT234	AOT Special Topics	2	
AOT236	Database Applications – Microsoft Access	3	ITD122
ENT221	Entrepreneurial Finance	3	ENT120
AOT108	Microsoft Outlook	1	
AOT107	Digital Technologies	1	
		16	
<b>TOTAL CREDITS</b>		<b>70</b>	

^Based on SSC placement scores



# INFORMATION TECHNOLOGY

## One Year Certificate

2122

### ADMINISTRATIVE OFFICE PROFESSIONAL CERTIFICATE

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting	3		
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
IMT122	Graphic Arts Design	3		
AOT127	Word Processing - Microsoft Word	3	ITD122 & AOT121	
AOT226	Spreadsheet - Microsoft Excel	3	ITD122	
AOT236	Database Applications - Microsoft Access	3	ITD122	
AOT132	Records Management^	3	IDS102 or Proficiency	
AOT134	Form Design Essentials	1		
TOTAL		22		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MTH222	Statistics^	3	MTH123 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
SOC225	Cultural Diversity	3		
PSY121 Or SOC121	General Psychology^ Or Sociology ^	3	IDS102 or Proficiency	
TOTAL		12		
TOTAL CREDIT HOURS		34		

^ Based on SSC placement scores

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**ADMINISTRATIVE OFFICE PROFESSIONAL CERTIFICATE**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition^	3	ENG105 or Proficiency
AOT121	Keyboarding/Formatting	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
AOT127	Word Processing – Microsoft Word	3	ITD122 & AOT121
MTH222	Statistics^	3	MTH123 or Proficiency
AOT134	Form Design Essentials	<u>1</u>	
		16	
<u>Second Semester</u>			
SOC225	Cultural Diversity	3	
IMT122	Graphic Arts Design	3	
AOT132	Records Management^	3	IDS102 or Proficiency
AOT226	Spreadsheets – Microsoft Excel	3	ITD122
PSY121	General Psychology^		
or	or		
SOC121	Sociology^	3	IDS102 or Proficiency
AOT236	Database Applications – Microsoft Access	<u>3</u>	ITD122
		18	
	<b>TOTAL CREDITS</b>	<b>34</b>	

^ Based on SSC placement scores



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### COMMERCIAL MUSIC TECHNOLOGY

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT129	Digital Audio Recording and Editing	3	Co-IMT121	
IMT134	Technical Musicianship	3	IMT135	
IMT135	Music Theory and Composition I	3		
IMT223	Digital Video Recording and Editing	3	IMT121	
IMT239	Music Synthesis I	3	IMT129 & 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 co-req IMT246	
IMT267	Film Scoring and Audio for Video	3	IMT134, IMT223, IMT239	
<b>TOTAL</b>		<b>36</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
IMT121	Interactive Media	3		
IMT230	Webcasting & Music Publishing	3	IMT129	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
MTH125	College Algebra^	4	MTH123 or Proficiency	
PHY101	Principles of Physics	4	MTH123 or Proficiency, IDS102 or Proficiency	
	Select one (1) Arts/Humanities elective from the list below. **	3	Some of these courses may have pre-requisites	
	Select one (1) Social Science elective from the list below. *	3	Some of these courses may have pre-requisites	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^Based on SSC placement scores

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\*Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMMERCIAL MUSIC TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
IMT121	Interactive Media	3	
IMT135	Music Theory and Composition I	3	
ITD122	Computer Applications for. Professionals^	3	ITD100 or Proficiency
IMT129	Digital Audio Recording and Editing	3	Co-req. IMT121
MTH125	College Algebra^	<u>4</u>	MTH123 or Proficiency
		<b>16</b>	
<u>Second Semester</u>			
IMT247	Music Theory and Composition II	3	IMT135
PHY101	Principles of Physics	4	MTH101 or MTH121 or MTH103 or MTH125
ENG124	College Composition^	3	ENG105 or Proficiency
IMT250	Music Technology	3	IMT129
IMT134	Technical Musicianship	<u>3</u>	IMT135
		<b>16</b>	
<u>Summer Semester</u>			
COM121	Effective Speaking		
Or	Or	3	
COM123	Small-group Communications		ENG124
ENG231	College Composition II	<u>3</u>	ENG124
		<b>6</b>	
<u>Third Semester</u>			
IMT230	Webcasting	3	IMT129
	Arts/Humanities Elective**	3	Some of these courses may have pre-requisites
IMT239	Music Synthesis	3	IMT129 & IMT247
IMT223	Digital Video Recording and Editing	3	IMT121
IMT260	Live Sound	<u>3</u>	IMT129
		<b>15</b>	
<u>Fourth Semester</u>			
IMT267	Film Scoring and Audio for Video	3	IMT134, IMT223, IMT239
IMT261	Advanced Music Technology	3	IMT239 co-req. IMT246
IMT246	Applied Music Technology	3	IMT250
IMT259	Music Synthesis II	3	IMT239
	Social Science Elective*	<u>3</u>	Some of these courses may have pre-requisites
		<b>15</b>	
	<b>TOTAL CREDITS</b>	<b>68</b>	

^ Based on SSC placement scores

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\*Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122





# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE

## COMPUTER ENGINEERING

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NET121	Intro to Computer Networking	3		
ECA222	C++ Programming	3	ECA127	
ECA223	Java Programming	3	ECA127	
ECA227	Assembly Language Programming	3	ECA222 or ECA223	
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253	
ECA239	Advanced Java Programming	3	ECA223	
NET220	Unix/Linux Operating Environment	3	MTH 101 or Proficiency	
EET227	PLC's & Industrial Controls I	3	EST130 or EET120	
EET262	Pulse and Digital Integrated Circuits	4	ECA128 or ECA222	
EST130	Electrical Circuits and Devices	4	MTH101 or Proficiency	
<b>TOTAL</b>		<b>32</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency	
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD121	Information Technology Student Success Seminar	1		
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus^	4	MTH125 or Proficiency	
MTH128	Trigonometry^	1	MTH125 or Proficiency	
PHY121	Col Physics I w/Alg	4	MTH125 and MTH128	
	Select one (1) Arts or Humanities elective from the list below**	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below *	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>38</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

^ Based on SSC placement scores

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012

Revised 2/2012

Academic Advising:

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

Academic Advising:

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**COMPUTER ENGINEERING**

Effective Summer 2012

<b><u>First Semester</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Pre- and Co-requisites</u></b>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professional^	3	
ECA127	Programming Logic and Problem Solving ^	3	ITD100 or Proficiency (IDS101 or Proficiency) and (MTH101 or Proficiency)
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
EST130	Electrical Circuits and Devices^	4	MTH101 or Proficiency
	<b>TOTAL</b>	<b>17</b>	
<b><u>Second Semester</u></b>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
NET121	Intro to Computer Networking	3	
ECA222	C++ Programming	3	ECA127
ECA223	Java Programming	3	ECA127
MTH125	College Algebra^	4	MTH123 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<b><u>Summer Semester</u></b>			
ENG221	Technical Report Writing	3	ENG124
	Arts/Humanities Elective**	3	Note: Some of these courses may require prerequisites.
	Social Science Elective*	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>9</b>	
<b><u>Third Semester</u></b>			
ECA227	Assembly Language Programming	3	ECA222 or ECA223
ECA239	Advanced Java Programming	3	ECA223
EET227	PLC's and Industrial Controls I	3	EST130 or EET120
MTH126	Pre-Calculus^	4	MTH125 or Proficiency
MTH128	Trigonometry^	1	MTH125 or Proficiency
	<b>TOTAL</b>	<b>14</b>	
<b><u>Fourth Semester</u></b>			
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253
NET220	Unix/Linux Operating Environment	3	MTH101 or Proficiency
EET262	Pulse and Digital Integrated Circuits	4	ECA128 or ECA222
PHY121	Col Physics I w/Alg	4	MTH125 and MTH128
	<b>TOTAL</b>	<b>14</b>	
	<b>TOTAL CREDITS</b>	<b>70</b>	

^ Based on SSC placement scores

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012

Revised 2/2012



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### COMPUTER GRAPHIC ARTS

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency	
ECA234	Advanced Cascading Style Sheets	3	ECA228	
IMT122	Graphic Arts Design I	3		
IMT131	Color Theory and Design	3		
IMT132	Digital Photography	3		
IMT137	Drawing Basics	3		
IMT244	Digital Page Layout and Design	3	IMT122, IMT131, IMT253	
IMT245	Graphic Arts Design II	3	IMT122	
IMT253	Graphics for Illustration	3	IMT122	
IMT254	Portfolio Development	3	IMT244 and IMT245	
IMT255	Advanced Illustration	3	IMT253	
<b>TECHNICAL ELECTIVE</b>	<b>Pick one of the following: #</b>			
ECA155	Flash Animation and Design #	3	ECA228	
IMT125	3D Graphics Modeling #	3	IMT122	
IMT262	Advanced Digital Photography #	3	IMT132	
<b>TOTAL</b>		<b>36</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	4	IDS102 or Proficiency	
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG227	Writing for Media	3	ENG124	
MKT121	Principles of Marketing	3	BUS121	
MKT222	Advertising	3	MKT121	
MTH125	College Algebra^	4	MTH123 or Proficiency	
SOC121 Or PSY121	Sociology^ Or General Psychology^	3	IDS102 or Proficiency	
	Select one (1) Arts/Humanities Electives**	3	Some of these courses may have pre-requisites	
PHY101	Principles of Physics	4	MTH123 or Proficiency, IDS102 or Proficiency	
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

^Based on SSC placement scores

#Select 3 credit hours of electives

\*\*Arts/Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER GRAPHIC ARTS**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
IMT131	Color Theory & Design	3	
IMT122	Graphic Arts Design	3	
IMT137	Drawing Basics	3	
ENG124	College Composition^	3	ENG105 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
		<b>16</b>	
<u>Second Semester</u>			
IMT132	Digital Photography	3	
IMT253	Graphics for Illustration	3	IMT122
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ENG227	Writing for Media	3	ENG124
PHY101	Principles of Physics^	4	MTH123 or Proficiency, IDS102 or Proficiency
		<b>16</b>	
<u>Summer Semester</u>			
COM121	Effective Speaking		
Or	Or	3	
COM123	Small-group Communications		ENG124
	Arts/Humanities Electives**	3	Some of these courses may have pre-requisites
BUS121	Business Administration^	4	IDS102 or Proficiency
		<b>10</b>	
<u>Third Semester</u>			
ECA228	Internet/Intranet Design & Development^	3	IDS101 or Proficiency
MKT121	Principles of Marketing	3	BUS121
IMT244	Digital Page Layout & Design	3	IMT122, IMT131, IMT253
IMT245	Graphic Arts Design II	3	IMT122
SOC121	Sociology^		IDS102 or Proficiency
Or	Or	3	
PSY121	General Psychology^		IDS102 or Proficiency
		<b>15</b>	
<u>Fourth Semester</u>			
ECA234	Advanced Cascading Style Sheets	3	ECA228
MKT222	Advertising	3	MKT121
IMT255	Advanced Illustration	3	IMT253
IMT254	Portfolio Development	3	IMT244 and IMT245
IMT125	3D Graphics Modeling #		IMT122
ECA155	Flash Animation #		ECA228
IMT262	Advanced Digital Photography #	3	IMT132
		<b>15</b>	
	<b>TOTAL CREDITS</b>	<b>72</b>	

^Based on SSC placement score

\*\*Arts/Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

#Technical Elective: IMT125, ECA155, IMT262

Reviewed 3/2012

Revised 2/2012



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE

**5501**

## **COMPUTER GRAPHIC ARTS** **DIGITAL PHOTOGRAPHY MAJOR**

Effective Summer 2012

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
IMT122	Graphic Arts Design I	3		
IMT131	Color Theory and Design	3		
IMT132	Digital Photography	3		
IMT244	Digital Page Layout and Design	3	IMT131, IMT122 and IMT253	
IMT245	Graphic Arts Design II	3	IMT122	
IMT253	Graphics for Illustration	3	IMT122	
IMT254	Portfolio Development	3	IMT244 and IMT245	
IMT256	Digital Imaging	3	IMT132 and Co- IMT122	
IMT262	Advanced Digital Photography	3	IMT132	
IMT263	Photographic Lighting	3	IMT132	
IMT264	Image Management	3	IMT132 and IMT262	
<b>TECHNICAL Electives</b>	<b>Pick one of the following: #</b>			
IMT137	Drawing Basics	3		
IMT125	3D Graphics Modeling	3	IMT122	
<b>TOTAL</b>		<b>36</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency	
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency	
ITD123	MAC Concepts	1	None	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
ENG227	Writing for Media	3	ENG124	
MKT121	Principles of Marketing	3	BUS121	
MKT222	Advertising	3	MKT121	
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency	
SOC121 or PSY121	Sociology <sup>^</sup> or General Psychology <sup>^</sup>	3	IDS102 or Proficiency	
PHY101	Principles of Physics	4	MTH123 or Proficiency, IDS102 or Proficiency	
<b>TOTAL</b>		<b>34</b>		
<b>TOTAL CREDIT HOURS</b>		<b>70</b>		

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

#Select one Technical Elective

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER GRAPHIC ARTS TECHNOLOGY**  
**DIGITAL PHOTOGRAPHY MAJOR**

Effective Summer 2012

<b>First Semester</b>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD123	MAC Concepts	1	
IMT131	Color Theory and Design	3	
MTH125	College Algebra^	4	MTH123 or Proficiency
IMT122	Graphic Arts Design	3	
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		<b>14</b>	
<b>Second Semester</b>			
IMT132	Digital Photography	3	IMT122
ENG227	Writing for Media	3	ENG124
IMT256	Digital Imaging	3	IMT132 Co-IMT122
IMT253	Graphics for Illustration	3	IMT122
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		<b>15</b>	
<b>Summer Semester</b>			
COM121	Effective Speaking		
Or	Or	3	
COM123	Small-group Communications		ENG124
BUS121	Business Administration^	4	IDS102 or Proficiency
PHY101	Principles of Physics^	4	MTH123 or Proficiency, IDS102 or Proficiency
SOC121	Sociology^		
Or	or		
PSY121	General Psychology^	<u>3</u>	IDS102 or Proficiency
		<b>14</b>	
<b>Third Semester</b>			
MKT121	Principles of Marketing	3	BUS121
IMT244	Digital Page Layout and Design	3	IMT131, IMT122 and IMT253
IMT263	Photographic Lighting	3	IMT132
IMT245	Graphic Arts Design II	<u>3</u>	IMT122
		<b>12</b>	
<b>Fourth Semester</b>			
MKT222	Advertising	3	MKT121
IMT264	Image Management	3	IMT132 and IMT262
IMT262	Advanced Digital Photography	3	IMT132
IMT125	3D Graphics Modeling #		IMT125
or			
IMT137	Drawing Basics #	3	
IMT254	Portfolio Development	<u>3</u>	IMT244 and IMT245
		<b>15</b>	
<b>TOTAL CREDITS</b>		<b>70</b>	

^Based on SSC placement scores

#Select one Technical Elective



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### COMPUTER NETWORK ADMINISTRATION AND SECURITY TECHNOLOGY

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NET120	PC Upgrading and Maintenance	3		
NET121	Intro to Computer Networking	3		
NET131	Microsoft Client Operating System	3	NET120 or NET121	
NET 134	CCNA Phase I	2	NET121	
NET135	CCNA Phase II	2	NET 134	
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or proficiency	
NET244	Microsoft Networking I	3	NET120 , and NET121	
NET245	Microsoft Networking II	3	NET244	
NET246	Microsoft Networking III	3	NET244	
NET260	Mac Server Essentials	3	NET220	
NET266	UNIX/LINUX Network Administration	3	NET220	
NET280	Web Server Administration	3	NET266 or NET264	
NET281	Firewall and Network Security	3	NET135	
	Technical electives #	3-4	Some of these courses may have pre-requisites	
TOTAL		40-41		

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CFS129	Cryptography	3		
COM121or COM123	Effective Speaking or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-calculus^	4	MTH125 or Proficiency	
PHY101	Principles of Physics ^	4	MTH123 or Proficiency, IDS102 or Proficiency	
	Select one (1) Arts/Humanities/Social Science elective from the list below. **	3	Some of these courses may have pre-requisites	
TOTAL		30		
TOTAL CREDIT HOURS		70-71		

^ Based on SSC placement scores

\*\*PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121

#Select 3-4 credit hours of technical electives: ECA127; NET251, NET252; NET264 (ECA274); NET265 (ECA254); **NET250 (ECA250) – REQUIRED ELECTIVE FOR UNIVERSITY OF AKRON ARTICULATION.**

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

## **COMPUTER NETWORK ADMINISTRATION AND SECURITY TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
NET120	PC Upgrading and Maintenance	3	
CFS129	Cryptography	3	
NET121	Intro to Computer Networking	3	
MTH125	College Algebra^	4	MTH123 or Proficiency
		16	
<u>Second Semester</u>			
NET131	Microsoft Client Operating System	3	NET120 ,NET121
NET134	CCNA Phase I	2	NET121
NET135	CCNA Phase II	2	NET134
NET244	Microsoft Networking I	3	NET120,
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or Proficiency
MTH126	Pre-calculus	4	MTH125 or Proficiency
		17	
<u>Third Semester</u>			
ENG124	College Composition^	3	ENG105 or Proficiency
	Arts/Humanities/Social Science elective**	3	Some of these courses may have
NET260	MAC Server Essentials	3	pre-requisites
		9	NET220
<u>Fourth Semester</u>			
COM121 or	Effective Speaking or		
COM123	Small-group Communications	3	ENG124
NET266	UNIX/LINUX Network Administration	3	NET220
PHY101	Principles of Physics	4	MTH123 or proficiency,
			IDS102 or proficiency
	Technical electives #	3-4	Some of these courses may have
			pre-requisites
		13-14	
<u>Fifth Semester</u>			
NET245	Microsoft Networking II	3	NET244
NET246	Microsoft Networking III	3	NET244
NET281	Firewall and Network Security	3	NET135
NET280	Web Server Administration	3	NET266 or
			NET264
ENG231	College Composition II	3	ENG124
		15	
<b>TOTAL CREDITS</b>		<b>70-71</b>	

^ Based on SSC placement scores

\*\* PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121

#Select 3-4 credit hours of technical electives: ECA127; NET251; NET252; NET264 ; NET265 ; **NET250 – REQUIRED ELECTIVE FOR UNIVERSITY OF AKRON ARTICULATION.**





# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### COMPUTER NETWORK ADMINISTRATION AND SECURITY TECHNOLOGY

### CISCO NETWORK ADMINISTRATION MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NET120	PC Upgrading and Maintenance	3		
NET121	Intro to Computer Networking	3		
NET131	Microsoft Client Operating System	3	NET120 or NET121	
NET134	CCNA Phase I	2	NET121	
NET135	CCNA Phase II	2	NET134	
NET220	UNIX/LINUX Operating Environment	3	MTH101 or Proficiency	
NET244	Microsoft Networking I	3	NET120, NET121	
NET250	CCNA Phase III and IV	4	NET135	
NET251	Voice over IP Fundamentals	3	NET135	
NET253	Securing Networks with Switches and Routers	3	NET135	
NET254	Cisco Wireless	3	NET135	
NET281	Firewall and Network Security	3	NET135	
	Technical Elective #	3	Some of these course may have pre-requisites	
<b>TOTAL</b>		<b>38</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CFS129	Cryptography	3		
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
MTH125	College Algebra ^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus	4	MTH125	
PHY101	Principles of Physics	4	MTH123 or proficiency, IDS102 or Proficiency	
	Select one (1) Arts/Humanities/Social Science elective from the list below **	3	Some of these courses may have pre-requisites	
<b>TOTAL</b>		<b>30</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^ Based on SSC placement scores

\*\*BUS122, BUS221, BUS222, PSC121, PHL122, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC225

# Select 3 credit hours of electives: ECA127, NET246, NET264, NET265, NET266

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER NETWORK ADMINISTRATION AND SECURITY TECHNOLOGY**  
**CISCO NETWORK ADMINISTRATION MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
CFS129	Cryptography	3	None
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
NET120	PC Upgrading and Maintenance	3	
NET121	Intro to Computer Networking	<u>3</u>	
		16	
<u>Second Semester</u>			
NET131	Microsoft Client Operating System	3	NET120 or NET121
NET134	CCNA Phase I	2	NET121
NET135	CCNA Phase II	2	NET134
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
MTH126	Pre-Calculus	<u>4</u>	MTH125
		17	
<u>Third Semester</u>			
ENG231	College Composition II	3	ENG124
	Arts/Humanities/Social Science elective**	<u>3</u>	Some of these courses may have pre-requisites
		6	
<u>Fourth Semester</u>			
NET250	CCNA Phase III and IV	4	NET135
NET251	Voice over IP Fundamentals	3	NET135
NET244	Microsoft Networking I	3	NET120 , NET121
PHY101	Principles of Physics	<u>4</u>	MTH123 or Proficiency, IDS102 or Proficiency
		14	
<u>Fifth Semester</u>			
COM121	Effective Speaking		
Or	Or	3	
COM123	Small-group Communications		ENG124
NET254	Cisco Wireless	3	NET135
NET253	Securing Networks with Switches and Routers	3	NET135
NET281	Firewall and Network Security	3	NET135
	Technical Elective #	<u>3</u>	Some of these courses may have pre-requisites
		16	
<b>TOTAL CREDITS</b>		<b>68</b>	

^ Based on SSC placement scores

\*\* BUS122, BUS221, BUS222, PSC121, PHL122, PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC225

# ECA127, NET246 , NET265 , NET264 , NET266



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

5402

### COMPUTER NETWORK ADMINISTRATION AND SECURITY TECHNOLOGY

### UNIX/LINUX DATABASE ADMINISTRATION MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
NET131	Microsoft Client Operating System	3	NET120 , NET121	
ECA142	Oracle Database: Introduction to SQL	3	ECA253	
NET120	PC Upgrading and Maintenance	3		
NET121	Intro to Computer Networking	3		
ECA253	Data Modeling and Database Design^	3	IDS101 or Proficiency, MTH101 or Proficiency	
NET265	UNIX/LINUX Shell Scripting	3	NET220	
ECA270	Oracle Database: Architecture & Administration	3	ECA142	
NET260	Mac OS Server Essentials	3	NET 220	
NET264	UNIX/LINUX System Administration	3	NET220	
NET266	UNIX/LINUX Network Administration	3	NET220	
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or Proficiency	
NET280	Web Server Administration	3	NET264 or NET266	
CFS286	UNIX/LINUX Forensics	3	NET220	
TOTAL		39		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
CFS129	Cryptography	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-calculus	4	MTH125 or Proficiency	
PHY101	Principles of Physics ^	4	MTH123 or Proficiency, IDS102 or Proficiency	
	Select one (1) Arts/Humanities/Social Science elective from the list below. **	3	Some of these courses may have pre-requisites	
TOTAL		30		
TOTAL CREDIT HOURS		69		

^Based on SSC placement scores

\*\*PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER NETWORK ADMINISTRATION AND SECURITY TECHNOLOGY**  
**UNIX/LINUX DATABASE ADMINISTRATION MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD122	Computer Applications for Professionals^+	3	ITD100 or Proficiency
NET120	PC Upgrading and Maintenance	3	
CFS129	Cryptography	3	
NET121	Intro to Computer Networking	3	
MTH125	College Algebra^	<u>4</u>	MTH123 or Proficiency
		16	
<u>Second Semester</u>			
ECA142	Oracle Database: Introduction to SQL	3	ECA253
ECA253	Database Design and Modeling	3	ECA122
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
MTH126	Pre-Calculus	<u>4</u>	MTH125
		16	
<u>Third Semester</u>			
NET265	UNIX/LINUX Shell Scripting	3	NET220
PHY101	Principles of Physics^	<u>4</u>	MTH123 or Proficiency, IDS102 or Proficiency
		7	
<u>Fourth Semester</u>			
NET131	Microsoft Client Operating System	3	NET120 ,NET121
ENG231	College Composition II	3	ENG124
ECA270	Oracle Database: Architecture & Administration	3	ECA142
NET264	UNIX/LINUX System Administration	3	NET220
NET266	UNIX/LINUX Network Administration	<u>3</u>	NET220
		15	
<u>Fifth Semester</u>			
CFS286	UNIX/LINUX Forensics	3	NET220
COM121	Effective Speaking		
Or	Or		
COM123	Small Group Communications	3	ENG124
NET260	Mac OS Server Essentials	3	NET220
NET280	Web Server Administration	3	NET264 or NET266
	Arts/Humanities/Social Science Elective**	<u>3</u>	Some of these courses may have pre-requisites
		15	
<b>TOTAL CREDITS</b>		<b>69</b>	

^Based on SSC placement scores

\*\*PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

5200

## COMPUTER PROGRAMMING & DATABASE

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA128	Visual Basic Development	3	ECA127	
ECA139	Microsoft SQL Server Database	3	ECA253	
ECA142	Oracle Database: Introduction to SQL	3	ECA253	
ECA151	Oracle Database: PL/SQL Development	3	ECA142 and ECA127	
ECA225	Web Development with JavaScript and AJAX	3	ECA228	
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253	
ECA234	Advanced Cascading Style Sheets	3	ECA228	
ECA236	Web Development with PHP and MySQL	3	ECA127 and ECA228	
ECA238	Advanced Visual Basic Development	3	ECA128	
ECA268	Advanced Web Development with PHP and MySQL	3	ECA236	
ECA269	Advanced Microsoft SQL Server Database	3	ECA139	
ECA270	Oracle Database: Architecture and Administration	3	ECA142	
<b>TOTAL</b>		<b>36</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	4	IDS102 or Proficiency	
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency	
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition^	3	ENG105 Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD121	Information Technology Student Success Seminar	1		
MTH222	Statistics^	3	MTH123 or Proficiency	
	Select one (1) Arts or Humanities elective from the list below**	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below*	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>35</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER PROGRAMMING & DATABASE**

Effective Summer 2012

<b><u>First Semester</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Pre- and Co-requisites</u></b>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA127	Programming Logic and Problem Solving ^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<b><u>Second Semester</u></b>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
ECA142	Oracle Database: Introduction to SQL	3	ECA253
ECA128	Visual Basic Development	3	ECA127
ECA225	Web Development with JavaScript and AJAX	3	ECA228
ECA234	Advanced Cascading Style Sheets	3	ECA228
	<b>TOTAL</b>	<b>15</b>	
<b><u>Summer Semester</u></b>			
ENG221	Technical Report Writing	3	ENG124
MTH222	Statistics^	3	MTH123 or Proficiency
	Arts/Humanities Elective**	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>9</b>	
<b><u>Third Semester</u></b>			
ECA139	Microsoft SQL Server Database	3	ECA253
ECA151	Oracle Database: PL/SQL Development	3	ECA142
ECA236	Web Development with PHP and MySQL	3	ECA127 and ECA228
ECA238	Advanced Visual Basic Development	3	ECA128
	Social Science Elective*	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>15</b>	
<b><u>Fourth Semester</u></b>			
BUS121	Business Administration^	4	IDS102 or Proficiency
ECA269	Advanced Microsoft SQL Server Database	3	ECA139
ECA268	Advanced Web Development with PHP and MySQL	3	ECA236
ECA270	Oracle Database: Architecture and Administration	3	ECA142
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253
	<b>TOTAL</b>	<b>16</b>	
	<b>TOTAL CREDITS</b>	<b>71</b>	

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# INFORMATION TECHNOLOGY ONE-YEAR CERTIFICATE PROGRAM

## **DATABASE SYSTEMS**

Effective Summer 2012

<b>TECH Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ECA139	Microsoft SQL Server Database	3	ECA253	
ECA142	Oracle Database: Introduction to SQL	3	ECA253	
ECA151	Oracle Database: PL/SQL Programming	3	ECA142 and ECA127	
ECA252	Data Mining and Data Warehousing #	3	ECA253	
ECA265	Generating Reports for Decision Making #	3	ECA253	
ECA269	Advanced Microsoft SQL Server Database	3	ECA139	
ECA270	Oracle Database: Architecture and Administration	3	ECA142	
<b>TOTAL</b>		<b>18</b>		
<b>NON-TECH Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
BUS121	Business Administration^	4	IDS102 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
<b>TOTAL</b>		<b>13</b>		
<b>TOTAL CREDIT HOURS</b>		<b>31</b>		

^ Based upon SSC placement score

# Choose 3 Hours of Technical Electives: ECA252, ECA265

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**DATABASE SYSTEMS**

Effective Summer 2012

**Summer Semester**

MTH222	Statistics^	3	MTH123 or Proficiency
ECA253	Data Modeling and Database Design^	<u>3</u>	(IDS101 or Proficiency) and (MTH101 or Proficiency)
	<b>TOTAL</b>	<b>6</b>	

**Semester I**

BUS121	Business Administration^	4	IDS102 or Proficiency
ECA142	Oracle Database: Introduction to SQL	3	ECA253
ECA139	Microsoft SQL Server Database	3	ECA253
ECA127	Programming Logic and Problem Solving^	<u>3</u>	(IDS101 or Proficiency) and (MTH101 or Proficiency)
	<b>TOTAL</b>	<b>13</b>	

**Semester II**

ECA151	Oracle Database: PL/SQL Development	3	ECA142 and ECA127
ECA270	Oracle Database: Architecture and Administration	3	ECA151
ECA269	Advanced Microsoft SQL Server Database	3	ECA139
	Technical Electives #	<u>3</u>	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>12</b>	
	<b>TOTAL CREDITS</b>	<b>31</b>	

^ Based upon SSC placement score

# Choose 3 Hours of Technical Electives: ECA252, ECA265





# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### COMPUTER SCIENCE AND ENGINEERING

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA128	Visual Basic Development	3	ECA127	
ECA139	Microsoft SQL Server Database	3	ECA253	
ECA222	C++ Programming	3	ECA127	
ECA223	Java Programming	3	ECA127	
ECA224	Advanced C++ Programming	3	ECA222	
ECA229	Active Server Page Development	3	ECA127 and ECA228	
ECA236	Web Development with PHP and MySQL	3	ECA127 and ECA228	
ECA238	Advanced Visual Basic Development	3	ECA128	
ECA239	Advanced Java Programming	3	ECA223	
ECA260	Software Engineering For Handheld Devices	3	ECA223	
ECA296	Advanced Active Server Page Development	3	ECA229	
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253	
<b>TOTAL</b>		<b>36</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency	
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD121	Information Technology Student Success Seminar	1		
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus	4	MTH125	
	Select one (1) Arts or Humanities elective from the list below**	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below *	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>36</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER SCIENCE AND ENGINEERING**

Effective Summer 2012

<b><u>First Semester</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Pre- and Co-requisites</u></b>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<b><u>Second Semester</u></b>			
ECA222	C++ Programming	3	ECA127
ECA223	Java Programming	3	ECA127
ECA229	Active Server Page Development	3	ECA127 and ECA228
	Arts/Humanities Elective**	3	Note: Some of these courses may require prerequisites
MTH125	College Algebra^	4	MTH123 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<b><u>Summer Semester</u></b>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
ENG221	Technical Report Writing	3	ENG124
	Social Science Elective*	3	Note: Some of these courses may require prerequisites
	<b>TOTAL</b>	<b>9</b>	
<b><u>Third Semester</u></b>			
ECA128	Visual Basic Development	3	ECA127
ECA296	Advanced Active Server Page Development	3	ECA229
ECA139	Microsoft SQL Server Database	3	ECA253
ECA236	Web Development with PHP and MySQL	3	ECA127 and ECA228
MTH126	Pre-Calculus	4	MTH125
	<b>TOTAL</b>	<b>16</b>	
<b><u>Fourth Semester</u></b>			
ECA224	Advanced C++ Programming	3	ECA222
ECA238	Advanced Visual Basic Development	3	ECA128
ECA239	Advanced Java Programming	3	ECA223
ECA260	Software Engineering for Hand-Held Devices	3	ECA223
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253
	<b>TOTAL</b>	<b>15</b>	
	<b>TOTAL CREDITS</b>	<b>72</b>	

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012

Revised 2/2012



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### COMPUTER SCIENCE AND ENGINEERING

#### Mobile Application Development

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
CSE121	Mobile Development Architecture	3	Co-Requisite: ECA127	
CSE221	Android Development 1	3	ECA223 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	ECA234 and ECA225 and CSE221 and CSE222	
ECA222	C++ Programming	3	ECA127	
ECA223	Java Programming	3	ECA127	
ECA225	Web Development with JavaScript and Ajax	3	ECA228	
ECA234	Advanced Cascading Style Sheets	3	ECA228	
ECA260	Software Engineering For Handheld Devices	3	ECA223	
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253	
<b>TOTAL</b>		<b>36</b>		
NON- TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition^	3	ENG105 or Proficiency	
ITD121	Information Technology Student Success Seminar	1		
ITD122	Computer Applications for Professionals ^++	3	ITD100 or Proficiency	
ITD123	Mac Essentials	1		
MTH125	College Algebra^	4	MTH123 or Proficiency	
	Select one (1) Arts or Humanities elective from the list below**	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below*	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>30</b>		
<b>TOTAL CREDIT HOURS</b>		<b>66</b>		

^ Based on SSC placement scores

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER SCIENCE AND ENGINEERING****Mobile Application Development**

Effective Summer 2012

<b><u>First Semester</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Pre- and Co-requisites</u></b>
ITD123	Mac Essentials	1	
ITD121	Information Technology Seminar	1	
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
ECA127	Programming Logic and Problem Solving ^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
CSE121	Mobile Development Architecture	3	Co-Requisite: ECA127
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>TOTAL</b>	<b>17</b>	
<b><u>Second Semester</u></b>			
ECA225	Web Development with JavaScript and Ajax	3	ECA228
ECA223	Java Programming	3	ECA127
ECA222	C++ Programming	3	ECA127
MTH125	College Algebra^	4	MTH123 or Proficiency
	Arts/Humanities Elective**	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>16</b>	
<b><u>Summer Semester</u></b>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
	Social Science Elective*	3	
	<b>TOTAL</b>	<b>6</b>	
<b><u>Third Semester</u></b>			
CSE221	Android Development 1	3	ECA223 and CSE121
ECA260	Software Engineering for Hand-Held Devices	3	ECA223
ECA234	Advanced Cascading Style Sheets	3	ECA228
ITD122	Computer Applications for Professionals	3	ITD100 or Proficiency
CSE222	iOS Development 1	3	CSE121 and ECA222
	<b>TOTAL</b>	<b>15</b>	
<b><u>Fourth Semester</u></b>			
CSE225	Cross-Platform Mobile Application Development	3	ECA234 and ECA225 and CSE221 and CSE222
CSE224	Android Development 2	3	CSE221
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253
CSE223	iOS Development 2	3	CSE222
	<b>TOTAL</b>	<b>12</b>	
	<b>TOTAL CREDITS</b>	<b>66</b>	

^ Based on SSC placement scores

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### COMPUTER SCIENCE AND ENGINEERING

### VIDEO GAME DESIGN AND DEVELOPMENT MAJOR

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA155	Flash Animation and Design	3	ECA228	
ECA222	C++ Programming	3	ECA127	
ECA223	Java Programming	3	ECA127	
ECA224	Advanced C++ Programming	3	ECA222	
ECA228	Internet Intranet Design and Development^	3	IDS101 or Proficiency	
ECA239	Advanced Java Programming	3	ECA223	
ECA240	Advanced Gaming and Simulation Topics (XNA)	3	ECA224	
ECA241	3D Game Design and Development	3	ECA281	
ECA267	Advanced Flash Animation and Design	3	ECA155	
ECA281	2D Game Design and Development	3	ECA222	
ECA282	Flash Action Scripting	3	ECA127 and ECA155	
ECA	Technical Elective #	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>36</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA156	Game Design^	3	IDS101 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD121	Information Technology Student Success Seminar	1		
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus	4	MTH125	
MTH128	Trigonometry	1	MTH125	
PHY121	Col Physics I w/Alg	4	MTH125 and MTH128 or MTH126	
	Select one (1) Arts or Humanities elective from the list below**	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>35</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^ Based upon SSC placement score

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

# Choose 3 (three) hours of Technical Electives - ECA260, ECA261, or ECA264

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER SCIENCE AND ENGINEERING**  
**VIDEO GAME DESIGN AND DEVELOPMENT MAJOR**

Effective Summer 2012

<u>First Semester</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA127	Programming Logic and Problem Solving ^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ECA156	Game Design^	3	IDS101 or Proficiency
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
	<b>TOTAL</b>	<b>17</b>	
<u>Second Semester</u>			
ECA155	Flash Animation and Design	3	ECA228
ECA222	C++ Programming	3	ECA127
ECA223	Java Programming	3	ECA127
	Arts/Humanities Elective**	3	Note: Some of these courses may require prerequisites.
ENG124	College Composition^	3	
	<b>TOTAL</b>	<b>15</b>	ENG105 or Proficiency
<u>Summer Semester</u>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
ENG221	Technical Report Writing	3	ENG124
	<b>TOTAL</b>	<b>6</b>	
<u>Third Semester</u>			
ECA224	Advanced C++ Programming	3	ECA222
ECA267	Advanced Flash Animation and Design	3	ECA155
ECA281	2D Game Design and Development	3	ECA222
	Technical Elective#	3	Note: Some of these courses may require prerequisites.
MTH126	Pre-Calculus	4	
MTH128	Trigonometry	1	MTH125
	<b>TOTAL</b>	<b>17</b>	MTH125
<u>Fourth Semester</u>			
ECA239	Advanced Java Programming	3	ECA223
ECA240	Advanced Gaming and Simulation Topics (XNA)	3	ECA224
ECA241	3D Game Design and Development	3	ECA281
ECA282	Flash Action Scripting	3	ECA127 and ECA155
PHY121	Col Physics I w/Alg	4	MTH125 and MTH128 or MTH126
	<b>TOTAL</b>	<b>16</b>	
	<b>TOTAL CREDITS</b>	<b>71</b>	

^ Based upon SSC placement score

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

# Choose 3 (three) hours of Technical Electives - ECA260, ECA261, or ECA264



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### **CYBER SECURITY AND COMPUTER FORENSICS TECHNOLOGY**

Effective Summer 2012

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ECA127	Programming Logic and Problem Solving^	3	IDS101 or Proficiency, MTH101 or Proficiency	
CFS129	Cryptography	3		
NET134	CCNA Phase I	2	NET121	
NET135	CCNA Phase II	2	NET134	
CFS136	Principles of Information Security	3		
CFS137	Computer Crime and Investigation	3	NET120	
NET120	PC Upgrading and Maintenance	3		
NET121	Intro to Computer Networking	3		
CFS256	Disaster Recovery and Incident Planning	3		
CFS257	File Systems Analysis	3	CFS137	
CFS258	Cyber Forensics & Data Recovery	3	CFS257	
CFS275	Ethical Hacking	3	NET120, NET220	
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or Proficiency	
NET281	Firewall and Network Security	3	NET135	
CFS286	UNIX/LINUX Forensics	3	NET220	
<b>TOTAL</b>		<b>43</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ACC235	Forensic Accounting and Fraud Investigation	3		
ACC236	Cyber Law & Ethics^	3	IDS102 or Proficiency	
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus	4	MTH125	
PHY101	Principles of Physics	4	MTH123 or Proficiency, IDS102 or Proficiency	
<b>TOTAL</b>		<b>30</b>		
<b>TOTAL CREDIT HOURS</b>		<b>73</b>		

^Based on SSC placement scores

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**CYBER SECURITY AND COMPUTER FORENSICS TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA127	Programming Logic and Problem Solving ^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
NET120	PC Upgrading and Maintenance	3	
NET121	Intro to Computer Networking	3	
MTH125	College Algebra^	<u>4</u>	MTH123 or Proficiency
		16	
<u>Second Semester</u>			
CFS136	Principles of Information Security	3	
CFS137	Computer Crime and Investigation	3	NET120
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or Proficiency
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		12	
<u>Third Semester</u>			
COM121	Effective Speaking		
Or	Or	3	
COM123	Small-group Communications		ENG124
ENG231	College Composition II	3	ENG124
MTH126	Pre-calculus	<u>4</u>	MTH125
		10	
<u>Fourth Semester</u>			
CFS129	Cryptography	3	
NET134	CCNA Phase I	2	NET121
NET135	CCNA Phase II	2	NET134
CFS257	File Systems Analysis	3	CFS 137
CFS286	UNIX/LINUX Forensics	3	NET220
PHY101	Principles of Physics	<u>4</u>	MTH123 or Proficiency, IDS102 or Proficiency
		17	
<u>Fifth Semester</u>			
ACC235	Forensic Accounting and Fraud Investigation	3	
ACC236	Cyber Law & Ethics	3	IDS102 or Proficiency
CFS256	Disaster Recovery & Incident Planning	3	
CFS258	Cyber Forensics & Data Recovery	3	CFS257
CFS275	Ethical Hacking	3	NET120 and NET220
NET281	Firewall and Network Security	<u>3</u>	NET135
		18	
<b>TOTAL CREDITS</b>		<b>73</b>	

^Based on SSC placement scores





# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

5451

### **CYBER SECURITY AND COMPUTER FORENSICS -**

### **DIGITAL FORENSICS MAJOR**

Effective Summer 2012

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ECA127	Programming Logic and Problem Solving^	3	(MTH101 or Proficiency) and (IDS101 or Proficiency)	
CFS129	Cryptography	3		
CFS137	Computer Crime and Investigation	3	NET120	
NET120	PC Upgrading and Maintenance	3		
NET121	Intro to Computer Networking	3		
CFS175	White Collar Crime	3		
CFS176	Online Investigative Resources	3	CFS137	
CFS257	File Systems Analysis	3	CFS137	
CFS258	Cyber Forensics & Data Recovery	3	CFS257	
CFS275	Ethical Hacking	3	NET120 and NET220	
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or Proficiency	
CFS286	UNIX/LINUX Forensics	3	NET220	
CFS280	Digital Media Forensics	3	CFS137	
CFS281	Advanced Digital Media Forensics	3	CFS258	
<b>TOTAL</b>		<b>42</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ACC235	Forensic Accounting and Fraud Investigation	3		
ACC236	Cyberlaw and Ethics^	3	IDS102 or Proficiency	
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-calculus	4	MTH125	
PHY101	Principles of Physics	4	MTH123 or Proficiency, IDS102	
<b>TOTAL</b>		<b>30</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

^Based on SSC placement scores

Reviewed 3/2012  
Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**CYBER SECURITY AND COMPUTER FORENSICS -**  
**DIGITAL FORENSICS MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA127	Programming Logic and Problem Solving ^	3	(MTH101 or Proficiency) and (IDS101 or Proficiency)
NET120	PC Upgrading and Maintenance	3	
NET121	Intro to Computer Networking	3	
CFS175	White Collar Crimes	<u>3</u>	
		15	
<u>Second Semester</u>			
CFS129	Cryptography	3	
CFS137	Computer Crime and Investigation	3	NET120
NET220	UNIX/LINUX Operating Environment^	3	MTH101 or Proficiency
ACC236	Cyberlaw and Ethics^	3	IDS102 or Proficiency
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		15	
<u>Third Semester</u>			
CFS257	File Systems Analysis	3	CFS137
MTH125	College Algebra^	4	MTH123 or Proficiency
COM121	Effective Speaking		
Or	Or	3	
COM123	Small-group Communications		ENG124
		10	
<u>Fourth Semester</u>			
CFS258	Cyber Forensics & Data Recovery	3	CFS257
CFS176	Online Investigative Resources	3	CFS137
MTH126	Pre-calculus	4	MTH125
ENG231	College Composition II	3	ENG124
PHY101	Principles of Physics	<u>4</u>	MTH123 or Proficiency. IDS102 or Proficiency
		17	
<u>Fifth Semester</u>			
ACC235	Forensic Accounting & Fraud Investigation	3	
CFS275	Ethical Hacking	3	NET121 and NET120
CFS280	Digital Media Forensics	3	CFS137
CFS281	Advanced Digital Media Forensics	3	CFS258
CFS286	UNIX/LINUX Forensics	<u>3</u>	NET220
		15	
<b>TOTAL CREDITS</b>		<b>72</b>	

^Based on SSC placement scores



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### DIGITAL VIDEO MEDIA TECHNOLOGY

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IMT122	Graphic Arts Design	3		
IMT125	3D Graphics Modeling	3	IMT122	
IMT129	Digital Audio Recording and Editing	3	IMT121	
IMT132	Digital Photography	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	
IMT243	Advanced Compositing	3	IMT237	
IMT251	Authoring and Video Compression	3	IMT223	
IMT268	Advanced Video Editing	3	IMT129 & IMT237	
IMT265	Motion Graphics Portfolio	3	IMT237	
IMT266	Filming Theory and Practice	3	IMT223	
<b>TOTAL</b>		<b>39</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG227	Writing for Media	3	ENG124	
ENG232	Scriptwriting	3	ENG124 and ENG227	
IMT121	Interactive Media	3		
IMT137	Drawing Basics	3		
MTH125	College Algebra^	4	MTH123 or Proficiency	
PHY101	Principles of Physics^	4	MTH123 or Proficiency, IDS102 or Proficiency	
	Select one (1) Arts/Humanities from the list below. **	3	Some of these courses may have pre-requisites	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^Based on SSC placement scores

\*\*Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**DIGITAL VIDEO MEDIA TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
IMT121	Interactive Media	3	
MTH125	College Algebra^	4	MTH123 or Proficiency
IMT122	Graphic Arts Design	3	
ENG124	College Composition^	3	ENG105 or Proficiency
		<b>16</b>	
<u>Second Semester</u>			
IMT132	Digital Photography	3	
IMT129	Digital Audio Recording and Editing	3	IMT121
IMT223	Digital Video Recording and Editing	3	IMT121
ENG227	Writing for Media	3	ENG124
IMT137	Drawing Basics	3	
		<b>15</b>	
<u>Summer Semester</u>			
COM121	Effective Speaking		
Or	Or	3	
COM123	Small-group Communications		ENG124
IMT266	Filming Theory and Evaluation	3	IMT223
IMT125	3D Graphics Modeling	3	IMT122
		<b>9</b>	
<u>Third Semester</u>			
ENG232	Scriptwriting	3	ENG124 and ENG227
IMT265	Motion Graphics Portfolio	3	IMT237
IMT237	Compositing	3	IMT223 or IMT125
IMT242	Lighting and Cinematography	3	IMT223
IMT268	Advanced Video Editing	3	IMT129 & IMT237
		<b>15</b>	
<u>Fourth Semester</u>			
PHY101	Principles of Physics^	4	MTH123 or Proficiency, IDS102 or Proficiency
IMT238	Advanced Video Production	3	IMT242
IMT243	Advanced Compositing	3	IMT237
IMT251	Authoring and Video Compression	3	IMT223
	Arts/Humanities **	3	Some of these courses may have pre-requisites
		<b>16</b>	
	<b>TOTAL CREDITS</b>	<b>71</b>	

^Based on SSC placement scores

\*\*Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE

## GEOGRAPHIC INFORMATION SYSTEMS

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA128	Visual Basic Development	3	ECA127	
ECA139	Microsoft SQL Server Database	3	ECA253	
GIS121	Geographic Information Systems & Remote Sensing	3	(IDS102 or Proficiency) and (MTH101 or Proficiency)	
GIS122	Geographic Information Systems Tools and Processes	3	(IDS102 or Proficiency) and (MTH101 or Proficiency)	
GIS221	Special Topics in GIS (8 weeks)	2	GIS121 & GIS122	
GIS222	Extended Tools in Remote Sensing (8 weeks)	2	GIS121 & GIS122	
GIS223	Advanced Tools in GIS & Remote Sensing (8 weeks)	2	GIS222	
GIS224	Extended Tools in Surface Analysis (8 weeks)	2	GIS121 & GIS122	
GIS225	Extended Tools in Routing Analysis (8 weeks)	2	GIS224	
GIS226	Extended Tools in 3D Visualization (8 weeks)	2	GIS223 & GIS225	
GIS227	Geospatial Projects in Public Safety # (8 weeks)	2	GIS223 & GIS225	
GIS228	Geospatial Projects in Agriculture # (8 weeks)	2	GIS223 & GIS225	
GIS229	Geospatial Projects in Business and Marketing # (8 weeks)	2	GIS223 & GIS225	
GIS230	Geospatial Projects – Creating a Campus Model # (8 weeks)	2	GIS223 & GIS225	
<b>TOTAL</b>		<b>30</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO126	Science, Energy, and the Environment	3		
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency	
ECA127	Programming Logic and Problem Solving	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA253	Data Modeling and Database Design	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENV223	Basic Geology/Hydrology	3	MTH121	
ITD121	Information Technology Student Success Seminar	1		
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
PSY121	General Psychology	3		
SOC122	Society and Technology	3		
<b>TOTAL</b>		<b>38</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^ Based upon SSC placement score

# Choose 6 Hours of Technical Electives: GIS227, GIS228, GIS229, or GIS230

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**GEOGRAPHIC INFORMATION SYSTEMS**

Effective Summer 2012

<u>First Semester</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals	3	ITD100 or Proficiency
ECA127	Programming Logic and Problem Solving	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ECA253	Data Modeling and Database Design	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
GIS121	Geographic Information Systems & Remote Sensing	3	(IDS102 or Proficiency) and (MTH101 or Proficiency)
MTH125	College Algebra^	4	MTH123 or Proficiency
	<b>TOTAL</b>	<b>17</b>	
<u>Second Semester</u>			
ECA128	Visual Basic Development	3	ECA127
ECA139	Microsoft SQL Server Database	3	ECA253
ENG124	College Composition^	3	ENG105 or Proficiency
ENV223	Basic Geology/Hydrology	3	MTH121
GIS122	Geographic Information Systems Tools and Processes	3	(IDS102 or Proficiency) and (MTH101 or Proficiency)
	<b>TOTAL</b>	<b>15</b>	
<u>Summer Semester</u>			
GIS221	Special Topics in GIS (8 Weeks)	2	GIS121 & GIS122
MTH222	Statistics^	3	MTH123 or Proficiency
PSY121	General Psychology	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>8</b>	
<u>Third Semester</u>			
BIO126	Science, Energy, and the Environment	3	
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
GIS222	Extended Tools in Remote Sensing (8 Weeks)	2	GIS121 and GIS122
GIS223	Advanced Tools in GIS & Remote Sensing (8 Weeks)	2	GIS222
GIS224	Extended Tools in Surface Analysis (8 Weeks)	2	GIS121 and GIS122
GIS225	Extended Tools in Routing Analysis (8 Weeks)	2	GIS224
	<b>TOTAL</b>	<b>14</b>	
<u>Fourth Semester</u>			
ENG221	Technical Report Writing	3	ENG124
GIS226	Extended Tools in 3D Visualization (8 Weeks)	2	GIS223 & GIS225
SOC122	Society and Technology	3	
	Technical Electives #	6	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>14</b>	
	<b>TOTAL CREDITS</b>	<b>68</b>	

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

# Choose 6 Hours of Technical Electives: GIS227, GIS228, GIS229, or GIS230



# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### HOMELAND SECURITY INFORMATION TECHNOLOGY

Effective Summer 2012

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
CFS137	Computer Crime and Investigation	3	NET120	
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		
CFS256	Disaster Recovery and Incident Planning	3		
CFS257	File System Analysis	3	CFS137	
CFS275	Ethical Hacking	3	NET120 and NET220	
HLS220	Weapons of Mass Destruction Awareness	3	HLS123	
HLS221	Terrorism and Homeland Defense	3	HLS122	
HLS222	Organizational Response & Networking Crisis Response	3	HLS123	
HLS223	Conflict Management	3	HLS123	
HLS224	Emergency Response to Terrorism	3	HLS121	
NET220	UNIX/LINUX Operating System^	3	MTH101 or Proficiency	
<b>TOTAL</b>		<b>42</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ACC236	Cyber Law & Ethics^	3	IDS102 or Proficiency	
BIO127	Human Biology	4		
CFS136	Principles of Information Security	3		
CHM121	Gen, Org. & Biol. Chemistry I+	4	CHM101 or HS Chemistry 2	
COM121 Or COM123	Effective Speaking Or Small-group Communications	3	ENG124	
ENG124	College Composition^	3	ENG105 or Proficiency	
FST225	Hazardous Materials	3		
MTH125	College Algebra^	4	MTH123 or Proficiency	
SOC225	Cultural Diversity	3		
<b>TOTAL</b>		<b>30</b>		
<b>TOTAL CREDIT HOURS</b>		<b>72</b>		

^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.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**HOMELAND SECURITY INFORMATION TECHNOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
HLS121	Introduction to Emergency Management	3	
HLS122	Intelligence and Homeland Security	3	
HLS123	Homeland Defense and Crisis Management	3	
CFS136	Principles of Information Security	3	
NET120	PC Upgrading and Maintenance	<u>3</u>	
		15	
<u>Second Semester</u>			
CFS137	Computer Crime and Investigation	3	NET120
BIO127	Human Biology	4	
NET220	UNIX/LINUX Operating Systems^	3	MTH101 or Proficiency
HLS220	Weapons of Mass Destruction Awareness	3	HLS123
FST225	Hazardous Materials	<u>3</u>	
		16	
<u>Third Semester</u>			
CHM121	Gen, Org & Biol. Chemistry 1+	4	CHM101 or HS Chemistry 2
MTH125	College Algebra^	4	MTH123 or Proficiency
ENG124	College Composition^	<u>3</u>	ENG105 or Proficiency
		11	
<u>Fourth Semester</u>			
COM121	Effective Speaking		
Or	Or		
COM123	Small-group Communications	3	ENG124
HLS221	Terrorism and Homeland Defense	3	HLS122
CFS275	Ethical Hacking	3	NET120, NET220
CFS257	File Systems Analysis	3	CFS137
CFS256	Disaster Recovery and Incident Planning	<u>3</u>	
		15	
<u>Fifth Semester</u>			
HLS224	Emergency Response to Terrorism	3	HLS121
ACC236	Cyber Law & Ethics^	3	IDS102 or Proficiency
HLS222	Organizational Response & Networking Crisis Response	3	HLS123
HLS223	Conflict Management	3	HLS123
SOC225	Culture Diversity	<u>3</u>	
		15	
<b>TOTAL CREDITS</b>		<b>72</b>	

^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.





# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

2152

## **JUDICIAL REPORTING & CAPTIONING** **BROADCAST CAPTIONING MAJOR**

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IRT121	Realtime Theory I	4		
IRT122	Realtime Theory II	4	IRT121	
IRT129	Speed Building I	4	IRT122	
IRT130	Speed Building II	4	IRT129	
IRT123	Speed Building III	4	IRT130	
IRT232	Information Reporting Internship	2	Department Chair approval	
IRT230	Basic Broadcast Captioning	3	IRT122	
IRT235	Advanced Broadcast Captioning	3	IRT230	
IRT229	Realtime Software Applications	3	IRT121	
IRT240	Short Writing Techniques	3	IRT122	
	IRT Technical Elective#	3-4		
<b>TOTAL</b>		<b>37-38</b>		
<b>CHOOSE ONE (1) IRT TECHNICAL ELECTIVE COURSE BELOW#:</b>				
IRT131	Legal Terminology	3		
BIO127	Human Biology	4		
CHM101	Intro. to Chemistry <sup>^+</sup>	4	MTH123 or Proficiency	
ENT120	Entrepreneurship <sup>^</sup>	3	IDS102 or Proficiency	
HIS121	U.S. History I – to 1877	3		
ASL121	Introduction to the Deaf Culture & Community	3		
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Intro. to Anatomy & Physiology <sup>^+</sup>	3	IDS102 or Proficiency	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency	
ACC130	Business Law & Ethics	3		
ITD122	Computer Applications for Professionals <sup>^++</sup>	3	ITD100 or Proficiency	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
ENG230	Business Communication	3	ENG124	
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency	
AOT130	Communication & Transcription Skills	3		
PSY121 Or SOC1212	General Psychology <sup>^</sup> Or Sociology <sup>^</sup>	3	IDS102 or Proficiency	
	Non-Technical Elective***	3		
<b>TOTAL</b>		<b>31</b>		
<b>CHOOSE ONE (1) NON-TECHNICAL ELECTIVE COURSE BELOW***:</b>				
PSC121	Political Science	3		
BIO125	Medical Terminology	3		
COM121	Effective Speaking	3		
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency	
<b>TOTAL CREDIT HOURS</b>		<b>68-69</b>		

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

+ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

#Students may select: IRT131, BIO127, CHM101, ENT120, HIS121, ASL121

\*\*\*Student may select: PSC121, BIO125, COM121 or BUS221

++Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for ITD122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 JRC program for more information.

**JUDICIAL REPORTING & CAPTIONING – BROADCAST CAPTIONING MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
ITD122	Computer Applications for Professionals <sup>^++</sup>	3	ITD100 or Proficiency
AOT130	Communication & Transcription Skills	3	
IRT121	Realtime Theory I	<u>4</u>	
		13	
<u>Second Semester</u>			
ENG230	Business Communication	3	ENG124
ACC130	Business Law & Ethics	3	
	IRT Technical Elective#	3-4	
IRT122	Realtime Theory II	4	IRT121
IRT229	Realtime Software Applications	<u>3</u>	IRT121
		16-17	
<u>Summer Semester</u>			
IRT129	Speed Building I	4	IRT122
IRT240	Short Writing Techniques	<u>3</u>	IRT122
		7	
<u>Third Semester</u>			
BIO101	Introduction to Anatomy & Physiology <sup>^+</sup>	3	IDS102 or Proficiency
BUS121	Business Administration	4	IDS102 or Proficiency
	Non-Technical Elective***	3	
IRT230	Basic Broadcast Captioning	3	IRT122
IRT130	Speed Building II	<u>4</u>	IRT129
		17	
<u>Fourth Semester</u>			
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency
IRT123	Speed Building III	4	IRT130
IRT235	Advanced Broadcast Captioning	3	IRT230
IRT232	Information Reporting Internship	2	Department Chair approval
PSY121	General Psychology <sup>^</sup>		
or	or		
SOC121	Sociology <sup>^</sup>	<u>3</u>	IDS102 or Proficiency
		15	
<b>TOTAL CREDITS</b>		<b>68-69</b>	

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

+ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

#Students may select: IRT230, IRT233, BIO125 or ENT120

\*\*\*Student may select: PSC121, BIO125, COM121 or BUS221

++Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for ITD122



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

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## JUDICIAL REPORTING & CAPTIONING JUDICIAL REPORTING MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IRT121	Realtime Theory I	4		
IRT122	Realtime Theory II	4	IRT121	
IRT129	Speed Building I	4	IRT122	
IRT130	Speed Building II	4	IRT129	
IRT123	Speed Building III	4	IRT130	
IRT232	Information Reporting Internship	2	Department Chair approval	
IRT131	Legal Terminology	3		
IRT231	Judicial Procedures	3	IRT122 (or IRT133); IRT229	
IRT229	Realtime Software Applications	3	IRT121	
IRT240	Short Writing Techniques	3	IRT122	
IRT241	RPR Written Knowledge Preparation	1	IRT231	
	IRT Technical Elective#	3		
<b>TOTAL</b>		<b>38</b>		
<b>CHOOSE ONE (1) IRT TECHNICAL ELECTIVE COURSE BELOW#:</b>				
IRT230	Basic Broadcast Captioning	3	IRT122	
IRT233	Transcription & Editing for Scopists	3	IRT122 (or IRT133); IRT229; IRT231	
BIO125	Medical Terminology	3		
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Intro. to Anatomy & Physiology^+	3	IDS102 or Proficiency	
BUS121	Business Administration^	4	IDS102 or Proficiency	
ACC130	Business Law & Ethics	3		
ITD122	Computer Applications for Professionals^++	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG230	Business Communication	3	ENG 124	
MTH222	Statistics^	3	MTH123 or Proficiency	
AOT130	Communication & Transcription Skills	3		
PSY121 Or SOC121	General Psychology^ Or Sociology^	3	IDS102 or Proficiency	
	Non-Technical Elective***	3		
<b>TOTAL</b>		<b>31</b>		
<b>CHOOSE ONE (1) NON-TECHNICAL ELECTIVE COURSE BELOW***:</b>				
PSC121	Political Science	3		
BIO125	Medical Terminology	3		
COM121	Effective Speaking	3		
BUS221	Microeconomics^	3	IDS102 or Proficiency	
<b>TOTAL CREDIT HOURS</b>		<b>69</b>		

^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.

#Students may select: IRT230, IRT233, BIO125 or ENT120

\*\*\*Student may select: PSC121, BIO125, COM121 or BUS221

++Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for ITD122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 JRC program for more information.

**JUDICIAL REPORTING & CAPTIONING – JUDICIAL REPORTING MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition^	3	ENG105 or Proficiency
ITD122	Computer Applications for Professionals^++	3	ITD100 or Proficiency
AOT130	Communication & Transcription Skills	3	
IRT121	Realtime Theory I	<u>4</u>	
		13	
<u>Second Semester</u>			
ENG230	Business Communication	3	ENG124
ACC130	Business Law & Ethics	3	
IRT131	Legal Terminology	3	
IRT122	Realtime Theory II	4	IRT121
IRT229	Realtime Software Applications	<u>3</u>	IRT121
		16	
<u>Summer Semester</u>			
IRT129	Speed Building I	4	IRT122
IRT240	Short Writing Techniques	<u>3</u>	IRT122
		7	
<u>Third Semester</u>			
BIO101	Introduction to Anatomy & Physiology^+	3	IDS102 or Proficiency
BUS121	Business Administration^	4	IDS102 or Proficiency
	Non-Technical Elective***	3	
IRT231	Judicial Procedures	3	IRT122 (or IRT133); IRT229
IRT130	Speed Building II	<u>4</u>	IRT129
		17	
<u>Fourth Semester</u>			
MTH222	Statistics^	3	MTH123 or Proficiency
IRT123	Speed Building III	4	IRT130
IRT232	Information Reporting Internship	2	Department Chair approval
IRT241	RPR Written Knowledge Preparation (8 weeks)	1	IRT231
PSY121	General Psychology^		
Or			
SOC121	Sociology^	3	IDS102 or Proficiency
	IRT Technical Elective#	<u>3</u>	
		16	
<b>TOTAL CREDITS</b>		69	

^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.

#Students may select: IRT230, IRT233, BIO125 or ENT120

\*\*\*Student may select: PSC121, BIO125, COM121 or BUS221

++Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for ITD122



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

## JUDICIAL REPORTING & CAPTIONING REALTIME TRANSCRIPTION MAJOR

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IRT121	Realtime Theory I	4		
IRT122	Realtime Theory II	4	IRT121	
IRT129	Speed Building I	4	IRT122	
IRT130	Speed Building II	4	IRT129	
IRT229	Realtime Software Applications	3	IRT121	
IRT240	Short Writing Techniques	3	IRT122	
	IRT Technical Elective#	3		
	IRT Technical Elective#	3		
	IRT Technical Elective#	3-5		
<b>TOTAL</b>		<b>31-33</b>		
<b>CHOOSE THREE (3) IRT TECHNICAL ELECTIVE COURSES BELOW#:</b>				
IRT123	Speed Building III	4	IRT130	
IRT131	Legal Terminology	3		
IRT231	Judicial Procedures	3	IRT122 (or IRT 133) & IRT229	
IRT230	Basic Broadcast Captioning	3	IRT122	
IRT235	Advanced Broadcast Captioning	3	IRT230	
AOT121	Keyboarding/Formatting	3		
AOT127	Microsoft Word	3	ITD122 & AOT121	
AOT239	Legal Transcription	3	AOT130 (prereq.) & AOT129 (coreq.)	
MTC121	Medical Transcription Terminology I	5	BIO123, BIO125 & AOT121	
BIO123	Principles of Human Structure and Function	5	BIO101 or BIO121 or BIO127	
BIO124	Human Diseases	3	BIO122 or BIO123	
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Introduction to Anatomy & Physiology^+	3	IDS102 or Proficiency	
BUS121	Business Administration^	4	IDS102 or Proficiency	
ACC130	Business Law & Ethics	3		
ITD122	Computer Applications for Professionals^++	3	ITD100 or Proficiency	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG230	Business Communication	3	ENG124	
MTH222	Statistics^	3	MTH123 or Proficiency	
AOT130	Communication & Transcription Skills	3		
PSY121 Or SOC121	General Psychology^ Or Sociology^	3	IDS102 or Proficiency	
	Non-Technical Elective***	3		
<b>TOTAL</b>		<b>31</b>		
<b>CHOOSE ONE (1) NON-TECHNICAL ELECTIVE COURSE BELOW***:</b>				
PSC121	Political Science	3		
BIO125	Medical Terminology	3		
COM121	Effective Speaking	3		
BUS221	Microeconomics ^	3	IDS102 or Proficiency	
<b>TOTAL CREDIT HOURS</b>		<b>62-64</b>		

^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.

#Students may select: IRT123, IRT131, IRT231, IRT230, IRT235, AOT121, AOT127, AOT239, MTC121, BIO123 or BIO124

\*\*\*Student may select: PSC121, BIO125, COM121 or BUS221

++Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for ITD122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 JRC program for more information.

**JUDICIAL REPORTING & CAPTIONING – REALTIME TRANSCRIPTION****MAJOR**Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
ITD122	Computer Applications for Professionals <sup>^++</sup>	3	ITD100 or Proficiency
AOT130	Communication & Transcription Skills	3	
IRT121	Realtime Theory I	<u>4</u>	
		13	
<u>Second Semester</u>			
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency
BIO101	Introduction to Anatomy & Physiology <sup>^+</sup>	3	IDS102 or Proficiency
	Non-Technical Elective <sup>***</sup>	3	
IRT122	Realtime Theory II	4	IRT121
IRT229	Realtime Software Applications	<u>3</u>	IRT121
		16	
<u>Summer Semester</u>			
IRT129	Speed Building I	4	IRT122
IRT240	Short Writing Techniques	<u>3</u>	IRT122
		7	
<u>Third Semester</u>			
ENG230	Business Communication	3	ENG124
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency
	IRT Technical Elective <sup>#</sup>	3	
IRT130	Speed Building II	<u>4</u>	IRT129
		14	
<u>Fourth Semester</u>			
ACC130	Business Law and Ethics	3	
PSY121	General Psychology <sup>^</sup>		
Or	or		
SOC121	Sociology <sup>^</sup>	3	IDS102 or Proficiency
	IRT Technical Elective <sup>#</sup>	3	
	IRT Technical Elective <sup>#</sup>	<u>3-5</u>	
		12-14	
<b>TOTAL CREDITS</b>		<b>62-64</b>	

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

+ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>#</sup>Students may select: IRT123, IRT131, IRT231, IRT230, IRT235, AOT121, AOT127, AOT239, MTC121, BIO123 or BIO124

<sup>\*\*\*</sup>Student may select: PSC121, BIO125, COM121 or BUS221

<sup>++</sup>Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for ITD122



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

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## JUDICIAL REPORTING & CAPTIONING SCOPIST MAJOR Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
IRT133	Theory for Scopists	3		
IRT233	Transcription & Editing for Scopists	3	IRT133 (or IRT122), IRT229 & IRT231	
AOT130	Communication & Transcription Skills	3		
IRT131	Legal Terminology	3		
IRT231	Judicial Procedures	3	IRT133 (or IRT122) & IRT229	
IRT229	Realtime Software Applications	3	IRT121	
BIO125	Medical Terminology	3		
AOT121	Keyboarding/Formatting	3		
ITD122	Computer Applications for Professionals <sup>++</sup>	3	ITD100 or proficiency	
	IRT Technical Elective#	3-4		
<b>TOTAL</b>		<b>30-31</b>		
<b>CHOOSE ONE (1) IRT TECHNICAL ELECTIVE COURSE BELOW#:</b>				
IRT129	Speed Building I	4	IRT122	
IMT122	Graphic Arts Design	3		
ENT221	Entrepreneurial Finance	3	ENT120	
NON-TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO101	Introduction to Anatomy & Physiology <sup>^+</sup>	3	IDS102 or Proficiency	
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency	
ACC130	Business Law & Ethics	3		
ACC121	Principles of Accounting	4		
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
ENG230	Business Communication	3	ENG124	
ENT120	Entrepreneurship <sup>^</sup>	3	IDS102 or Proficiency	
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency	
ENT121	Entrepreneurial Marketing	3	ENT120	
PSY121 Or SOC121	General Psychology <sup>^</sup> Or Sociology <sup>^</sup>	3	IDS102 or Proficiency	
	Non-Technical Elective***	3		
<b>TOTAL</b>		<b>35</b>		
<b>CHOOSE ONE (1) NON-TECHNICAL ELECTIVE COURSE BELOW***:</b>				
PSC121	Political Science	3		
COM121	Effective Speaking	3		
BUS221	Microeconomics <sup>^</sup>	3	IDS102 or Proficiency	
<b>TOTAL CREDIT HOURS</b>		<b>65-66</b>		

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

+ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

#Students may select: IRT129, IMT122, ENT221

\*\*\*Student may select: PSC121, COM121 or BUS221

++Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for ITD122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 - Case Catalyst student version must be purchased for this program. Please contact an academic advisor in the JRC program for more information.

**JUDICIAL REPORTING & CAPTIONING - SCOPIST MAJOR**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition^	3	ENG105 or Proficiency
AOT130	Communication & Transcription Skills	3	
AOT121	Keyboarding/Formatting	3	
IRT131	Legal Terminology	3	
IRT133	Theory for Scopists	<u>3</u>	
		15	
<u>Second Semester</u>			
MTH222	Statistics^	3	MTH123 or Proficiency
BIO125	Medical Terminology	3	
ENG230	Business Communication	3	ENG124
ACC130	Business Law & Ethics	3	
ITD122	Computer Applications for Professionals^++	3	ITD100 or Proficiency
IRT229	Realtime Software Applications	<u>3</u>	IRT121
		18	
<u>Third Semester</u>			
BIO101	Introduction to Anatomy & Physiology^+	3	IDS102 or Proficiency
BUS121	Business Administration^	4	IDS102 or Proficiency
	Non-Technical Elective***	3	
IRT231	Judicial Procedures	3	IRT133 (or IRT122) & IRT229
ENT120	Entrepreneurship^	<u>3</u>	IDS102 or Proficiency
		16	
<u>Fourth Semester</u>			
ENT121	Entrepreneurial Marketing	3	ENT120
ACC121	Principles of Accounting	4	
PSY121	General Psychology^		
Or			
SOC121	Sociology^	3	IDS102 or Proficiency
	IRT Technical Elective#	3-4	
IRT233	Transcription & Editing for Scopists	<u>3</u>	IRT133 (or IRT122), IRT229 & IRT231
		16-17	
<b>TOTAL CREDITS</b>		<b>65-66</b>	

^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.

#Students may select: IRT129, IMT122, ENT221

\*\*\*Student may select: PSC121, COM121 or BUS221

++Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for ITD122





# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

2105

## LEGAL ASSISTING

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting	3		
AOT129	Keyboarding Skill Building	1	AOT121	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
AOT239	Legal Transcription	3	AOT130 (prereq.) & AOT129 (coreq.)	
AOT224	Legal Office Procedures	3	AOT121 & AOT130	
IRT131	Legal Terminology	3		
AOT235	Legal Research and Writing	3		
AOT237	Legal Office Applications	3	AOT239 & AOT224	
AOT130	Communication & Transcription Skills	3		
AOT127	Word Processing - Microsoft Word	3	ITD122 & AOT121	
AOT226	Spreadsheet - Microsoft Excel	3	ITD122	
AOT132	Records Management^	3	IDS102 or Proficiency	
AOT107	Digital Technologies	1		
AOT 108	Microsoft Outlook	1		
<b>TOTAL</b>		<b>36</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ACC121	Principles of Accounting	4		
AOT232	AOT Practicum	3	AOT226	
BUS121	Business Administration ^	4	IDS102 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
ACC130	Business Law & Ethics	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
SOC225	Cultural Diversity	3		
PSY121 Or SOC121	General Psychology^ Or Sociology ^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
BUS221	Microeconomics^	3	IDS102 or Proficiency	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^Based on SSC placement scores

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**LEGAL ASSISTING**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition^	3	ENG105 or Proficiency
AOT130	Communication & Transcription Skills	3	
AOT121	Keyboarding/Formatting	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
BUS121	Business Administration^	4	IDS102 or Proficiency
IRT131	Legal Terminology	<u>3</u>	
		19	
<u>Second Semester</u>			
AOT127	Word Processing – Microsoft Word	3	ITD122 & AOT121
SOC225	Cultural Diversity	3	
AOT129	Keyboarding Skill Building	1	AOT121
AOT239	Legal Transcription	3	AOT130 (prereq.) & AOT129 (coreq.)
AOT132	Records Management^	3	IDS102 or Proficiency
MTH222	Statistics^	<u>3</u>	MTH123 or Proficiency
		16	
<u>Third Semester</u>			
AOT224	Legal Office Procedures	3	AOT121 & AOT130
ACC121	Principles of Accounting	4	
ACC130	Business Law and Ethics	3	
PSY121	General Psychology^		
Or	or		
SOC121	Sociology^	3	IDS102 or Proficiency
COM121	Effective Speaking	<u>3</u>	
		16	
<u>Fourth Semester</u>			
AOT226	Spreadsheets – Microsoft Excel	3	ITD122
BUS221	Microeconomics	3	IDS102 or Proficiency
AOT237	Legal Office Applications	3	AOT239 & AOT224
AOT232	AOT Practicum	3	AOT226
AOT235	Legal Research and Writing	3	
AOT108	Microsoft Outlook	1	
AOT107	Digital Technologies	<u>1</u>	
		17	
<b>TOTAL CREDITS</b>		<b>68</b>	

^Based on SSC placement scores



# INFORMATION TECHNOLOGY

## One Year Certificate

2106

### LEGAL ASSISTING CERTIFICATE

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AOT121	Keyboarding/Formatting	3		
AOT129	Keyboarding Skill Building	1	AOT121	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
AOT239	Legal Transcription	3	AOT130 (prereq.) & AOT129 (coreq.)	
AOT224	Legal Office Procedures	3	AOT121 & AOT130	
IRT131	Legal Terminology	3		
AOT237	Legal Office Applications	3	AOT239 & AOT224	
AOT130	Communication & Transcription Skills	3		
TOTAL		22		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
MTH222	Statistics^	3	MTH123 or Proficiency	
ACC130	Business Law & Ethics	3		
ENG124	College Composition^	3	ENG105 or Proficiency	
SOC225	Cultural Diversity	3		
TOTAL		12		
TOTAL CREDIT HOURS		34		

^Based on SSC placement scores

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**LEGAL ASSISTING CERTIFICATE**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ENG124	College Composition^	3	ENG105 or Proficiency
AOT121	Keyboarding/Formatting	3	
AOT130	Communication & Transcription Skills	3	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
IRT131	Legal Terminology	3	
AOT224	Legal Office Procedures	<u>3</u>	AOT121 & AOT130
		18	
<u>Second Semester</u>			
AOT129	Keyboarding Skill Building	1	AOT121
SOC225	Cultural Diversity	3	
MTH222	Statistics^	3	MTH123 or Proficiency
AOT239	Legal Transcription	3	AOT130 (prereq.) & AOT129 (coreq.)
AOT237	Legal Office Applications	3	AOT239 & AOT224
ACC130	Business Law and Ethics	<u>3</u>	
		16	
<b>TOTAL CREDITS</b>		<b>34</b>	

^Based on SSC placement scores



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

## MANAGEMENT INFORMATION SYSTEMS

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA144	Desktop, LAN, and WAN Technologies	3	ECA132	
ECA147	Advanced Computer Applications for Technical Professionals	3	ITD122	
ECA148	Microsoft Excel: Analyzing Data to Make Better Decisions	3	ITD122 and ECA253	
ECA152	Microsoft Access: Designing Robust Applications^	3	ITD122 and ECA253 and (MTH222 or Proficiency)	
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122	
ECA264	IT Project Management	3	ITD122, ECA253	
ECA265	Generating Reports for Decision Making	3	ECA253	
ECA293	MCAP: Developing Cross-Functional Skills	3	ECA147	
ECA294	MCAS: Using Microsoft Vista, Outlook, and Publisher	3	ITD122	
	Technical Elective #	3	Note: Some of these courses may require prerequisites.	
	Technical Elective #	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>33</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	4	IDS102 or Proficiency	
COM121/122/123	Effective Speaking or Interpersonal Communication or Small Group Communication	3	None/None/ENG124	
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency	
ECA132	Help Desk and Computer Support Concepts^	3	IDS101 or Proficiency	
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD121	Information Technology Student Success Seminar	1		
MTH222	Statistics^	3	MTH123 or Proficiency	
	Select one (1) Arts/Humanities elective from the list below **	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below *	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>35</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

# Choose 6 (six) hours of Technical Electives - ECA133, ECA143, ECA149, ECA153, ECA162, ECA163, ECA164, ECA165, ECA166, ECA167, ECA168, ECA169, ECA231, ECA259, ECA263, or ECA292

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MANAGEMENT INFORMATION SYSTEMS**

Effective Summer 2012

<u>First Semester</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA132	Help Desk and Computer Support Concepts^	3	IDS101 or Proficiency
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<u>Second Semester</u>			
ECA144	Desktop, LAN and WAN Technologies	3	ECA132
ECA147	Advanced Computer Applications for Technical Professionals	3	ITD122
ECA148	Microsoft Excel: Analyzing Data to Make Better Decisions	3	ITD122,ECA253
ECA152	Microsoft Access: Designing Robust Applications^	3	ITD122, ECA253 (MTH222 or Proficiency)
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122
	<b>TOTAL</b>	<b>15</b>	
<u>Summer Semester</u>			
COM121/122/123	Effective Speaking or Interpersonal Communication or Small Group Communication	3	None/None/ENG124
MTH222	Statistics^	3	MTH123 or Proficiency
	Arts/Humanities Elective**	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>9</b>	
<u>Third Semester</u>			
BUS121	Business Administration^	4	IDS102 or Proficiency
ECA294	MCAS: Using Microsoft Vista, Outlook, Publisher	3	ITD122
ENG221	Technical Report Writing	3	ENG124
	Social Science Elective*	3	Note: Some of these courses may require prerequisites.
	Technical Elective#	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>16</b>	
<u>Fourth Semester</u>			
ECA265	Generating Reports for Decision Making	3	ECA253
ECA293	MCAP: Developing Cross-Functional Skills	3	ECA147
ECA264	IT Project Management	3	ITD122,ECA253
	Technical Elective#	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>12</b>	
	<b>TOTAL CREDITS</b>	<b>68</b>	

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

# Choose 6 (six) hours of Technical Electives - ECA133, ECA143, ECA149, ECA153, ECA162, ECA163, ECA164, ECA165, ECA166, ECA167, ECA168, ECA169, ECA231, ECA259, ECA263, or ECA292

Reviewed 3/2012

Revised 2/2012



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

## MANAGEMENT INFORMATION SYSTEMS HELP DESK/COMPUTER SUPPORT SPECIALIST

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA133	Supporting Users and Troubleshooting Desktop Applications	3	ECA132	
ECA144	Desktop, LAN, and WAN Technologies	3	ECA132	
ECA147	Advanced Computer Applications for Technical Professionals	3	ITD122	
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122	
ECA259	MCITP: Consumer Support Technician	3	ECA133	
ECA263	MCITP: Enterprise Support Technician	3	ECA133	
ECA264	IT Project Management	3	ITD122,ECA253	
ECA265	Generating Reports for Decision Making	3	ECA253	
ECA294	MCAS: Using Microsoft Vista, Outlook, and Publisher	3	ITD122	
	Technical Elective #	3	Note: Some of these courses may require prerequisites.	
	Technical Elective #	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>33</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration^	4	IDS102 or Proficiency	
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ECA132	Help Desk and Computer Support Concepts^	3	IDS101 or Proficiency	
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD121	Information Technology Seminar	1		
MTH222	Statistics^	3	MTH123 or Proficiency	
	Select one (1) Arts/Humanities elective from the list below **	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below *	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>35</b>		
<b>TOTAL CREDIT HOURS</b>		<b>68</b>		

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

# Choose 6 (six) hours of Technical Electives - ECA138, ECA143, or ECA292

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

## **MANAGEMENT INFORMATION SYSTEMS**

### **HELP DESK/COMPUTER SUPPORT SPECIALIST**

Effective Summer 2012

<u>First Semester</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA132	Help Desk and Computer Support Concepts^	3	IDS101 or Proficiency
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<u>Second Semester</u>			
ECA133	Supporting Users and Troubleshooting Desktop Applications	3	ECA132
ECA144	Desktop, LAN, and WAN Technologies	3	ECA132
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122
ECA265	Generating Reports for Decision Making	3	ECA253
ECA147	Advanced Computer Applications for Technical Professionals	3	ITD122
	<b>TOTAL</b>	<b>15</b>	
<u>Summer Semester</u>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
ENG221	Technical Report Writing	3	ENG124
MTH222	Statistics^	3	MTH123 or Proficiency
	<b>TOTAL</b>	<b>9</b>	
<u>Third Semester</u>			
	Arts/Humanities Elective**	3	Note: Some of these courses may require prerequisites.
	Technical Elective#	3	Note: Some of these courses may require prerequisites.
ECA294	MCAS: Using Microsoft Vista, Outlook, Publisher	3	ITD122
ECA259	MCITP: Consumer Support Technician	3	ECA133
	<b>TOTAL</b>	<b>12</b>	
<u>Fourth Semester</u>			
	Social Science Elective*	3	Note: Some of these courses may require prerequisites.
BUS121	Business Administration^	4	IDS102 or Proficiency
	Technical Elective#	3	Note: Some of these courses may require prerequisites.
ECA263	MCITP: Enterprise Support Technician	3	ECA133
ECA264	IT Project Management	3	ITD122,ECA253
	<b>TOTAL</b>	<b>16</b>	
	<b>TOTAL CREDITS</b>	<b>68</b>	

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

# Choose 6 (six) hours of Technical Electives - ECA138, ECA143, or ECA292





# INFORMATION TECHNOLOGY

## ASSOCIATE OF APPLIED SCIENCE

### MANAGEMENT INFORMATION SYSTEMS

### MICROSOFT CERTIFIED APPLICATION SPECIALIST

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA139	Microsoft SQL Server Database	3	ECA253	
ECA147	Advanced Computer Applications of Technical Professionals	3	ITD122	
ECA148	Microsoft Excel: Analyzing Data to Make Better Decisions <sup>^</sup>	3	ITD122 and ECA253 and MTH222 or Proficiency	
ECA152	Microsoft Access: Designing Robust Applications	3	ITD122 and ECA253	
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122	
ECA265	Generating Reports for Decision Making	3	ECA253	
ECA290	Microsoft Expression Studio	3	ECA228	
ECA293	MCAP: Developing Cross-functional Skills	3	ECA147 and ECA294	
ECA294	MCAS: Using Microsoft Vista, Outlook, and Publisher	3	ITD122	
ECA	Technical Elective #	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>30</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BUS121	Business Administration <sup>^</sup>	4	IDS102 or Proficiency	
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals <sup>^</sup>	3	ITD100 or Proficiency	
ECA228	Internet/Intranet Design and Development <sup>^</sup>	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design <sup>^</sup>	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ITD121	Information Technology Student Success Seminar	1		
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency	
	Select one (1) Arts or Humanities elective from the list below **	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below *	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>62</b>		

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

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

# Choose 3 Hours of Technical Electives: ECA143, ECA166, ECA167, ECA169, or ECA292

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MANAGEMENT INFORMATION SYSTEMS**  
**MICROSOFT CERTIFIED APPLICATION SPECIALIST**

Effective Summer 2012

<b><u>First Semester</u></b>		<b><u>Credit Hours</u></b>	<b><u>Pre- and Co-requisites</u></b>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA228	Internet/Intranet Design and Development ^	3	IDS101 or Proficiency
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and ( MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>TOTAL</b>	<b>13</b>	
<b><u>Second Semester</u></b>			
	Select one (1) Arts/ Humanities elective from the list below. **	3	Note: Some of these courses may require prerequisites.
ECA139	Microsoft SQL Server Database	3	ECA253
ECA147	Advanced Computer Applications of Technical Professionals	3	ITD122
ECA148	Microsoft Excel: Analyzing to Make Better Decisions	3	ITD122 and ECA253
ECA152	Microsoft Access: Designing Robust Applications^	3	ITD122, ECA253 and MTH222 or Proficiency
	<b>TOTAL</b>	<b>15</b>	
<b><u>Summer Semester</u></b>			
ENG221	Technical Report Writing	3	ENG124
MTH222	Statistics^	3	MTH123 or Proficiency
	Select one (1) Social Science elective from the list below. *	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>9</b>	
<b><u>Third Semester</u></b>			
BUS121	Business Administration^	4	IDS102 or Proficiency
ECA294	MCAS: Using Microsoft Vista, Outlook, Publisher	3	ITD122
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
	<b>TOTAL</b>	<b>13</b>	
<b><u>Fourth Semester</u></b>			
ECA290	Microsoft Expression Studio	3	ECA228
ECA265	Generating Reports for Decision Making	3	ECA253
ECA293	MCAP: Developing Cross functional skills	3	ECA147
	Technical Elective #	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>12</b>	
	<b>TOTAL CREDITS</b>	<b>62</b>	

^ Based upon SSC placement score

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

# Choose 3 Hours of Technical Electives: ECA143, ECA166, ECA167, ECA169, or ECA292



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

## MANAGEMENT INFORMATION SYSTEMS MEDICAL INFORMATICS

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA147	Advanced Computer Applications for Technical Professionals	3	ITD122	
ECA148	Microsoft Excel: Analyzing Data to Make Better Decisions^	3	ITD122 and ECA253 and MTH222 or Proficiency	
ECA150	Informatics^	3	ITD122, ECA253, (IDS102 or Proficiency) and (MTH101 or proficiency)	
ECA152	Microsoft Access: Designing Robust Applications^	3	ITD122 and ECA253, (MTH122 or proficiency)	
ECA255	MCTS: Managing Project with Microsoft Project	3	ITD122	
ECA264	IT Project Management	3	ITD122,ECA253	
ECA265	Generating Reports for Decision Making	3	ECA253	
ECA280	Advanced Informatics	3	ECA150	
ECA294	MCAS: Using Microsoft Vista, Outlook and Publisher	3	ITD122	
ECA	Technical Elective #	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>30</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
BIO125	Medical Terminology	3		
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ECA228	Internet/Intranet Design and Development ^	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design^	3	(IDS101or Proficiency) and (MTH101 or Proficiency)	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
HIT230	Healthcare Delivery in the U.S.	2		
ITD121	Information Technology Student Success Seminar	1		
MTH222	Statistics^	3	MTH123 or Proficiency	
	Select one (1) Arts/Humanities elective from the list below **	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below *	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>33</b>		
<b>TOTAL CREDIT HOURS</b>		<b>63</b>		

^ Based upon SSC placement score

\* \*Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\*Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

# Choose 3 Hours of Technical Electives - ECA143, ECA292

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MANAGEMENT INFORMATION SYSTEMS MEDICAL INFORMATICS**

Effective Summer 2012

<b><u>First Semester</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Pre- and Co-requisites</u></b>
BIO125	Medical Terminology	3	
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
	<b>Total</b>	<b>13</b>	
<b><u>Second Semester</u></b>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
ECA147	Advanced Computer Applications for Technical Professionals	3	ITD122
ECA148	Microsoft Excel: Analyzing to Make Better Decisions^	3	ITD122, ECA253
ECA150	Informatics^	3	ITD122, ECA253, (MTH101 or proficiency) and (IDS102 or proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>Total</b>	<b>15</b>	
<b><u>Summer Semester</u></b>			
ENG221	Technical Report Writing	3	ENG124
MTH222	Statistics^	3	MTH123 or Proficiency
	Arts/Humanities Elective**	3	Note: Some of these courses may require prerequisites.
	<b>Total</b>	<b>9</b>	
<b><u>Third Semester</u></b>			
ECA152	Microsoft Access: Designing Robust Applications^	3	ITD122 and ECA253 and MTH222 or Proficiency
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122
ECA265	Generating Reports for Decision Making	3	ECA253
	Social Science Elective*	3	Note: Some of these courses may require prerequisites.
	<b>Total</b>	<b>12</b>	
<b><u>Fourth Semester</u></b>			
ECA294	MCAS: Using Microsoft Vista, Outlook, and Publisher	3	ITD122
ECA264	IT Project Management	3	ECA253, ITD122
ECA280	Advanced Informatics	3	ECA150
	Technical Elective #	3	Note: Some of these courses may require prerequisites.
HIT230	Healthcare Delivery in the U.S.	2	
	<b>Total</b>	<b>14</b>	
	<b>TOTAL CREDITS</b>	<b>63</b>	

^ Based upon SSC placement score

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

# Choose 3 Hours of Technical Electives - ECA143, ECA292



## INFORMATION TECHNOLOGY ONE-YEAR CERTIFICATE PROGRAM

### COMPUTER MAINTENANCE AND DESKTOP SUPPORT

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA132	Help Desk and Computer Support Concepts^	3	IDS101 or Proficiency	
ECA133	Supporting Users and Troubleshooting Desktop Applications	3	ECA132	
ECA144	Desktop, LAN, and WAN Technologies	3	ECA132	
NET120	PC Upgrading and Maintenance	3		
NET121	Intro to Computer Networking	3		
ECA259	MCITP: Consumer Support Technician	3	ECA133	
ECA263	MCITP: Enterprise Support Technician	3	ECA133	
TOTAL		21		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
BUS121	Business Administration^	4	IDS102 or Proficiency	
MTH222	Statistics^	3	MTH 123 or Proficiency	
TOTAL		10		
TOTAL CREDIT HOURS		31		

^ Based upon SSC placement score

**Academic Advising:**

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**COMPUTER MAINTENANCE AND DESKTOP SUPPORT**

Effective Summer 2012

**Summer Semester**

ITD122	Computer Applications for Professionals^	3	ID100 or Proficiency
ECA132	Help Desk and Customer Support Concepts^	<u>3</u>	IDS101 or Proficiency
	<b>TOTAL</b>	<b>6</b>	

**Semester I**

ECA133	Supporting Users and Troubleshooting Desktop Applications	3	ECA132
ECA144	Desktop, LAN, and WAN Technologies	3	ECA132
ECA145	PC Upgrading and Maintenance	3	
ECA146	Introduction to Computer Networking	<u>3</u>	
	<b>TOTAL</b>	<b>12</b>	

**Semester II**

ECA259	MCITP: Consumer Support Technician	3	ECA133
ECA263	MCITP: Enterprise Support Technician	3	ECA133
BUS121	Business Administration^	4	IDS102 or Proficiency
MTH222	Statistics^	<u>3</u>	MTH123 or Proficiency
	<b>TOTAL</b>	<b>13</b>	
	<b>TOTAL CREDITS</b>	<b>31</b>	

^ Based upon SSC placement score



# INFORMATION TECHNOLOGY

## ONE-YEAR CERTIFICATE PROGRAM

**5025**

### **MICROSOFT CERTIFIED APPLICATION SPECIALIST**

Effective Summer 2012

<b>Technical Course</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ECA147	Advanced Computer Applications for Technical Applications	3	ITD122	
ECA149	Introduction to Computers	1		
ECA153	Introduction to the Internet	1		
ECA162	MCAS: Using Microsoft Office Outlook	1		
ECA165	MCAS: Using Microsoft Office Publisher	1		
ECA166	MCTS: Microsoft Windows Mobile	1		
ECA167	MCAS: Using Microsoft Visio	1		
ECA168	MCAS: Using Microsoft Vista	1		
ECA169	MCAS: Using Microsoft Groove	1		
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122	
ECA293	MCAP: Developing Cross-functional Skills	3	ECA147	
ECA294	MCAS: Using Microsoft Vista, Outlook, and Publisher	3	ITD122	
	<b>TOTAL</b>	<b>20</b>		
<b>Non-Tech Course</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
BUS121	Business Administration^	4	IDS102 or Proficiency	
ITD122	Computer Applications for Professionals ^	3	ITD100 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
	<b>TOTAL</b>	<b>10</b>		
<b>TOTAL CREDIT HOURS</b>		<b>30</b>		

^ Based upon SSC placement score

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MICROSOFT CERTIFIED APPLICATION SPECIALIST**

Effective Summer 2012

<b><u>Summer</u></b>		<b><u>Credit Hours</u></b>	<b><u>Prerequisite</u></b>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA149	Introduction to Computers	1	
ECA168	MCAS: Using Microsoft Vista	1	
ECA162	MCAS: Using Microsoft Office Outlook	1	
ECA153	Introduction to the Internet	1	
MTH222	Statistics^	<u>3</u>	MTH123 or Proficiency
	<b>TOTAL</b>	<b>10</b>	
<b><u>Semester I</u></b>			
ECA167	MCAS: Using Microsoft Visio	1	
ECA147	Advanced Computer Applications for Technical Applications	3	ITD122
ECA255	MCTS: Managing Projects with Microsoft Project	3	ITD122
ECA294	MCAS: Using Microsoft Vista, Outlook, and Publisher	<u>3</u>	ITD122
	<b>TOTAL</b>	<b>10</b>	
<b><u>Semester II</u></b>			
ECA165	MCAS: Using Microsoft Office Publisher	1	
ECA169	MCAS: Using Microsoft Groove	1	
ECA166	MCTS: Microsoft Windows Mobile	1	
ECA293	MCAP: Developing Cross-functional Skills	3	ECA147
BUS121	Business Administration^	<u>4</u>	IDS102 or Proficiency
	<b>TOTAL</b>	<b>10</b>	
	<b>TOTAL CREDITS</b>	<b>30</b>	

^ Based upon SSC placement score





# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

5100

## WEB DESIGN AND DEVELOPMENT

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA128	Visual Basic Development	3	ECA127	
ECA138	Web Graphics Design	3	ECA228	
ECA139	Microsoft SQL Server Database	3	ECA253	
ECA225	Web Development with JavaScript and AJAX	3	ECA228	
ECA229	Active Server Page Development	3	ECA127 and ECA228	
ECA232	Content Management System Design and Development	3	ECA253 and ECA228	
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253	
ECA234	Advanced Cascading Style Sheets	3	ECA228	
ECA236	Web Development with PHP and MySQL	3	ECA127 and ECA228	
ECA268	Advanced Web Development with PHP and MySQL	3	ECA236	
ECA296	Advanced Active Server Page Development	3	ECA229	
<b>TOTAL</b>		<b>33</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA266	Search Engine Optimization	3	ECA228	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
ENT121	Entrepreneurial Marketing	3	ENT120	
ITD121	Information Technology Student Success Seminar	1		
MTH125	College Algebra^	4	MTH123 or Proficiency	
	Select one (1) Arts/Humanities elective from the list below **	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below *	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>38</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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/

**WEB DESIGN AND DEVELOPMENT**

Effective Summer 2012

<u>First Semester</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<u>Second Semester</u>			
ECA128	Visual Basic Development	3	ECA127
ECA236	Web Development with PHP and MySQL	3	ECA127 and ECA228
ECA229	Active Server Page Development	3	ECA127 and ECA228
ECA225	Web Development with JavaScript and AJAX	3	ECA228
MTH125	College Algebra^	4	MTH123 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<u>Summer Semester</u>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
ENT120	Entrepreneurship^	3	IDS102 or Proficiency
	Arts/Humanities elective**	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>9</b>	
<u>Third Semester</u>			
ECA296	Advanced Active Server Page Development	3	ECA229
ECA234	Advanced Cascading Style Sheets	3	ECA228
ECA138	Web Graphics Design	3	ECA228
ECA268	Advanced Web Development with PHP and MySQL	3	ECA236
ECA139	Microsoft SQL Server Database	3	ECA253
	<b>TOTAL</b>	<b>15</b>	
<u>Fourth Semester</u>			
ECA232	Content Management System Design and Development	3	ECA253 and ECA228
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253
ECA266	Search Engine Optimization	3	ECA228
ENT121	Entrepreneurial Marketing	3	ENT120
	Social Sciences elective*	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>15</b>	
	<b>TOTAL CREDITS</b>	<b>71</b>	

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



# INFORMATION TECHNOLOGY ASSOCIATE OF APPLIED BUSINESS

## WEB DESIGN AND DEVELOPMENT

### WEB DESIGN

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA138	Web Graphics Design	3	ECA228	
ECA139	Microsoft SQL Server Database	3	ECA253	
ECA154	Web Design with Dreamweaver	3	ECA228	
ECA155	Flash Animation and Design	3	ECA228	
ECA225	Web Development with JavaScript and AJAX	3	ECA228	
ECA234	Advanced Cascading Style Sheets	3	ECA228	
ECA267	Advanced Flash Animation and Design	3	ECA155	
ECA290	Microsoft Expression Studio	3	ECA228	
ECA302	Advanced Web Design	3	ECA138	
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253	
ECA264	IT Project Management	3	ITD122 and ECA253	
<b>TOTAL</b>		<b>33</b>		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
COM121 Or COM122 Or COM123	Effective Speaking Or Interpersonal Communication Or Small Group Communication	3	ENG124	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency	
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)	
ECA266	Search Engine Optimization	3	ECA228	
ENG124	College Composition^	3	ENG105 or Proficiency	
ENT120	Entrepreneurship^	3	IDS102 or Proficiency	
ENT121	Entrepreneurial Marketing	3	ENT120	
ITD121	Information Technology Student Success Seminar	1		
MTH125	College Algebra^	4	MTH123 or Proficiency	
	Select one (1) Arts/Humanities elective from the list below **	3	Note: Some of these courses may require prerequisites.	
	Select one (1) Social Science elective from the list below *	3	Note: Some of these courses may require prerequisites.	
<b>TOTAL</b>		<b>38</b>		
<b>TOTAL CREDIT HOURS</b>		<b>71</b>		

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

Reviewed 3/2012

Revised 2/2012

Academic Advising:

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

CourseSequence:

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

**WEB DESIGN AND DEVELOPMENT****WEB DESIGN**

Effective Summer 2012

<b><u>First Semester</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Pre- and Co-requisites</u></b>
ITD121	Information Technology Student Success Seminar	1	
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA127	Programming Logic and Problem Solving^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
ECA253	Data Modeling and Database Design^	3	(IDS101 or Proficiency) and (MTH101 or Proficiency)
ENG124	College Composition^	3	ENG105 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<b><u>Second Semester</u></b>			
ECA138	Web Graphics Design	3	ECA228
ECA154	Web Design with Dreamweaver	3	ECA228
ECA155	Flash Animation and Design	3	ECA228
ECA225	Web Development with JavaScript and AJAX	3	ECA228
ECA290	Microsoft Expression Studio	3	ECA228
	<b>TOTAL</b>	<b>15</b>	
<b><u>Summer Semester</u></b>			
COM121	Effective Speaking		
Or	Or		
COM122	Interpersonal Communication	3	
Or	Or		
COM123	Small Group Communication		ENG124
	Social Sciences elective*	3	Note: Some of these courses may require prerequisites.
	Arts/Humanities elective**	3	Note: Some of these courses may require prerequisites.
	<b>TOTAL</b>	<b>9</b>	
<b><u>Third Semester</u></b>			
ECA139	Microsoft SQL Server Database	3	ECA253
ECA234	Advanced Cascading Style Sheets	3	ECA228
ECA267	Advanced Flash Animation and Design	3	ECA155
ENT120	Entrepreneurship^	3	IDS102 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
	<b>TOTAL</b>	<b>16</b>	
<b><u>Fourth Semester</u></b>			
ECA266	Search Engine Optimization	3	ECA228
ECA302	Advanced Web Design	3	ECA138
ECA233	Analyzing Software Requirements and Developing Solutions	3	(ECA128 or ECA222 or ECA223 or ECA225 or ECA226 or ECA229 or ECA234 or ECA236) and ECA253
ENT121	Entrepreneurial Marketing	3	ENT120
ECA264	IT Project Management	3	ITD122 and ECA253
	<b>TOTAL</b>	<b>15</b>	
	<b>TOTAL CREDITS</b>	<b>71</b>	

^ Based upon SSC placement score

\* Social Science electives: PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221

\*\* Arts/Humanities electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122



## INFORMATION TECHNOLOGY ONE-YEAR CERTIFICATE PROGRAM

### WEB DESIGN

Effective Summer 2012

TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ECA138	Web Graphics Design	3	ECA228	
ECA155	Flash Animation and Design	3	ECA228	
ECA225	Web Development with JavaScript and AJAX	3	ECA228	
ECA234	Advanced Cascading Style Sheets	3	ECA228	
ECA266	Search Engine Optimization	3	ECA228	
ECA290	Microsoft Expression Studio	3	ECA228	
ECA302	Advanced Web Design	3	ECA138	
TOTAL		21		
NON-TECH Course #	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
ITD122	Computer Applications for Professionals ^	3	ID100 or Proficiency	
ECA228	Internet/Intranet Design and Development ^	3	IDS101 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
TOTAL		9		
TOTAL CREDIT HOURS		30		

^ Based upon SSC placement score

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**WEB DESIGN**

Effective Summer 2012

**Summer Semester**

ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency
ECA228	Internet/Intranet Design and Development^	3	IDS101 or Proficiency
MTH222	Statistics^	<u>3</u>	MTH123or Proficiency
<b>TOTAL</b>		<b>9</b>	

**Semester I**

ECA138	Web Graphics Design	3	ECA228
ECA155	Flash Animation and Design	3	ECA228
ECA225	Web Development with JavaScript and AJAX	3	ECA228
ECA290	Microsoft Expression Studio	<u>3</u>	ECA228
<b>TOTAL</b>		<b>12</b>	

**Semester II**

ECA234	Advanced Cascading Style Sheets	3	ECA228
ECA266	Search Engine Optimization	3	ECA228
ECA302	Advanced Web Design	<u>3</u>	ECA138
<b>TOTAL</b>		<b>9</b>	
<b>TOTAL CREDITS</b>		<b>30</b>	

^ Based upon SSC placement score



# LIBERAL ARTS ASSOCIATE OF ARTS-GENERAL

7100

## ASSOCIATE OF ARTS-GENERAL

Effective Summer 2012

Course	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>FRESHMAN EXPERIENCE</b>				
ASD101	Student Success Seminar in Arts & Sciences	1		
<b>COMPUTER APPLICATIONS</b>				
ITD122	Computer Applications for Professionals (required)	3		
<b>WRITTEN &amp; ORAL COMMUNICATION: 6 credit hours minimum</b>				
ENG124	College Composition (required)^	3	ENG105 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	ENG124	
COM125	Intro. To Comm. Theory^	3	IDS102 or Proficiency	
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 9 credit hours minimum</b>				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity (required)	3		
PSY122	Psychology of Adjustment	3	PSY121	
PSY123	Human Growth & Development	3	PSY121	
PSY124	Psychology of Work	3		
PSY220	Social Psychology	3	PSY121	
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	
<b>ARTS &amp; HUMANITIES: 12 credit hours minimum (continued)</b>				
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 to 1877	3		
HIS122	U.S. History from 1877	3		
PHL122	Ethics	3		
<b>SCIENCES &amp; MATHEMATICS: 3 semester credit hours in Math minimum and 6 semester credit hours in Natural and Physical Sciences minimum (1 lab course required)</b>				
	<u>Natural and Physical Sciences</u>			
BIO121	Anatomy & Physiology I (lab)+	4	HS BIO 2 or BIO101 or BIO127	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4		
BIO221	Principles of Microbiology (lab)	4	BIO122, BIO123, or BIO141	
CHM101	Intro. to Chemistry^+	4	MTH123 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab)^	4	HS CHM 2 or CHM101	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)^	5	HS CHM 2 or CHM101	
CHM142	General Chemistry II (lab)	5		
PHY101	Principles of Physics (lab)^	4	MTH123 or Proficiency & IDS102 or Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH126 or (MTH125 & MTH128)	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
	<u>Mathematics</u>			
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Precalculus^	4	MTH125 or Proficiency	
MTH128	Basic Trigonometry^	1	MTH123 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
MTH221	Concepts of Calculus^	3	MTH126 or Proficiency	
MTH223	Analytic Geometry-Calculus I^	4	MTH126 or Proficiency	
<b>ADDITIONAL ELECTIVES TO COMPLETE DEGREE</b>		<b>20</b>		



## ASSOCIATE OF ARTS 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	ADDITIONAL MATHEMATICS & SCIENCE COURSES
<b>Arts &amp; Humanities</b>	<b>Biology</b>
ENG235 Introduction to Shakespeare (3)	BIO101 Intro. to Anatomy & Physiology (3)+
ENG239 Film Appreciation (3)	BIO123 Principles of Human Structure & Function (5)
ENG 240 Women's Literature (3)	BIO222 Pharmacology (3)
ENG241 Major Modern Writers (3)	
<b>Communications</b>	
COM223 Interviewing (3)	
<b>English</b>	
ENG125 Technical Editing & Layout (3)	
ENG126 Technical Grammar & Style (3)	
ENG227 Writing for Media (3)	
ENG228 Writing for the Web (3)	
ENG229 Grant Writing (3)	
ENG232 Scriptwriting (3)	
ENG238 Introduction to Creative Writing (3)	
<b>Social and Behavioral Sciences</b>	
GER121 Intro to Gerontology (3)	
GER122 Psychosocial Aspects of Aging (3)	
PSY125 Child Development (3)	
PSY222 Psychological Aspects of Therapy (3)	
SOC124 US Social Systems (3)	
SOC222 Juvenile Delinquency (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.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 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.

**ASSOCIATE OF ARTS – GENERAL**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre-requisites</u>
ASD101	Student Success Seminar	1	-
IDT122	Computer Applications for Professionals (required)^	3	-
ENG124	College Composition (required)^	3	ENG105 or Proficiency
	<i>Arts &amp; Humanities Elective<sup>1</sup></i>	3	Check for Pre-requisite
	<i>Arts &amp; Humanities Elective<sup>1</sup></i>	3	Check for Pre-requisite
	<i>Social Science Elective<sup>5^</sup></i>	<u>3</u>	IDS102 or Proficiency
		16	
<u>Second Semester</u>			
	<i>Arts &amp; Humanities Elective<sup>1</sup></i>	3	Check for Pre-requisite
	<i>Mathematics Elective<sup>2</sup></i>	3/4	Check for Pre-requisite
	<i>Science Elective<sup>3</sup></i>	3/5	Check for Pre-requisite
	<i>Written/Oral Communication Elective<sup>4</sup></i>	3	Check for Pre-requisite
	<i>Social Science Elective<sup>5^</sup></i>	<u>3</u>	IDS102 or Proficiency
		15-18	
<u>Third Semester</u>			
SOC225	Cultural Diversity (required)	3	-
	<i>Science Elective<sup>3</sup></i>	3/5	Check for Pre-requisite
	<i>Arts &amp; Humanities Elective<sup>1</sup></i>	3	Check for Pre-requisite
	<i>Social Science Elective<sup>5^</sup></i>	3	IDS102 or Proficiency
	<i>Elective<sup>6</sup></i>	<u>3</u>	Check for Pre-requisite
		15/17	
<u>Fourth Semester</u>			
	<i>Elective<sup>6</sup></i>	3	Check for Pre-requisite
	<i>Elective<sup>6</sup></i>	3	Check for Pre-requisite
	<i>Elective<sup>6</sup></i>	3	Check for Pre-requisite
	<i>Elective<sup>6</sup></i>	3	Check for Pre-requisite
	<i>Elective<sup>6</sup></i>	<u>3</u>	Check for Pre-requisite
		15	
	<b>TOTAL CREDITS</b>	<b>61/66</b>	

^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.

<sup>1</sup>Select from ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

<sup>2</sup>Select from MTH125, MTH126, MTH128, MTH222, MTH221, MTH223

<sup>3</sup>Select from BIO121, BIO122, BIO124, BIO125, BIO126, BIO127, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101, PHY121, PHY122

<sup>4</sup>Select from ENG221, ENG230, ENG231, COM121, COM122, COM123, COM125

<sup>5</sup>Select from PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY220, PSY221, SOC122, SOC123, SOC221, BUS122, BUS221, BUS222

<sup>6</sup>Select from ENG235, ENG239, ENG240, ENG241, COM223, ENG125, ENG126, ENG227, ENG228, ENG229, ENG232, ENG238, GER121, GER122, PSY125, PSY222, SOC124, SOC222, BIO101, BIO123, BIO222 OR ANY ADDITIONAL WRITTEN & ORAL COMMUNICATION, SOCIAL & BEHAVIORAL SCIENCES, ARTS & HUMANITIES, OR SCIENCES & MATHEMATICS COURSES

Reviewed 3/2012

Revised 2/2012



## Liberal Arts ASSOCIATE OF ARTS

### Dual Associate of Arts Degree Program

#### Fine Arts Track

**\*Notes:** Students must take a minimum of 15 hours at Kent State University Stark Campus and 15 hours at Stark State College and maintain a minimum GPA of 2.0 overall at both Kent State University Stark Campus and Stark State College.

Effective Summer 2012

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>Core Art Courses</b>	<b>18 hours minimum</b>			
ARTF 14000 (KSU)	Drawing I	3	Please consult KSU catalog	
ART 14022 (KSU)	2-D Composition	3	Please consult KSU catalog	
ART 14023 (KSU)	3-D Composition	3	Please consult KSU catalog	
ARTF 14060 (KSU)	Painting I	3	Please consult KSU catalog	
ARTH 22006 (KSU)	Art History I	3	Please consult KSU catalog	
ARTH 22007 (KSU)	Art History II	3	Please consult KSU catalog	
<b>TOTAL</b>		<b>18</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>Composition</b>	<b>6 hours minimum</b>			
ENG124	College Composition <sup>^</sup> -or ENG 11011 College English I (KSU)	3	ENG 105 or Proficiency	
ENG231	College Composition II -or ENG 21011 College English II (KSU)	3	ENG 124	
<b>Mathematics, Critical Reasoning</b>	<b>3 hours minimum</b>			
MTH 125	College Algebra <sup>^</sup>	4	MTH 123 or Proficiency	
MTH 126	Precalculus <sup>^</sup>	4	MTH 125 or Proficiency	
MTH 221	Concepts of Calculus <sup>^</sup>	3	MTH 126 or Proficiency	
MTH 222	Statistics <sup>^</sup>	3	MTH 123 or Proficiency	
MTH 223	Analytical Geometry-Calculus I <sup>^</sup>	4	MTH 126 or Proficiency	
	-or select from Mathematics or Critical Reasoning on KSU Core list			
<b>Humanities and Fine Arts</b>	<b>9 hours minimum</b>			
ENG233	British Literature: Medieval 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 to 1877	3		
HIS122	U.S. History from 1877	3		
PHL 122	Ethics	3		
ARTH 22006 (KSU)	Art History I (required)	3	Please consult KSU catalog	
ARTH 22007 (KSU)	Art History II (required)	3	Please consult KSU catalog	

<b>Social Sciences</b>	<b>6 hours minimum-courses must be in two subject areas</b>			
PSY 121	General Psychology^	3	IDS 102 or Proficiency	
SOC 121	Sociology^	3	IDS 102 or Proficiency	
PSC 121	Political Science	3		
SOC 123	Dynamics of the Family	3		
SOC 225	Cultural Diversity	3		
PSY 122	Psychology of Adjustment	3	PSY 121	
PSY 123	Human Growth & Development	3	PSY 121	
PSY 221	Abnormal Psychology	3	PSY 121	
BUS 122	Basic Economics^	3	IDS 102 or Proficiency	
BUS 221	Microeconomics^	3	IDS 102 or Proficiency	
BUS 222	Macroeconomics^		IDS 102 or Proficiency	
	<i>-or- select from KSU Core list for Anthropology, Conflict Management, Economics, Geography, Gerontology, Journalism, Justice Studies, Political Science, Psychology, or Sociology</i>			
<b>Basic Sciences</b>	<b>7 hours minimum</b>		<i>Coursework must include at least one of the Basic Sciences laboratory courses plus any specified pre-requisite and/or co-requisite courses.</i>	
BIO 101	Intro to Anatomy & Physiology (non-lab)^+	3	IDS102 or proficiency	
BIO 121	Anatomy & Physiology I	4	HS Biology 2 or BIO 101 or BIO 127	
BIO 122	Anatomy & Physiology II	4	BIO 121 or BIO 123	
BIO 126	Science, Energy, & the Environment	4		
BIO 127	Human Biology	4		
BIO 141	General Biology I	4		
BIO 142	General Biology II	4		
CHM 101	Intro to Chemistry (non-lab)+	4	MTH 123 or Proficiency	
CHM 121	General, Organic, and Bio Chemistry I	4	CHM 101 or HS Chemistry 2	
CHM 122	General, Organic, and Bio Chemistry II	4	CHM 121	
CHM 141	General Chemistry I	5	CHM 101 or HS Chemistry 2	
CHM 142	General Chemistry II	5		
PHY 101	Principles of Physics	4	MTH 123 or Proficiency & IDS 102 or Proficiency	
PHY 121	College Physics I with Algebra	4	MTH 126 or (MTH 125 & MTH 128)	
PHY 122	College Physics II with Algebra	4	PHY 121	
	<i>-or select from KSU Core list for Anthropology, Biological Sciences, Chemistry, Geology, or Physics</i>			
<b>Additional SSC Transfer Module/KSU Core Requirements</b>	<b>6 hours minimum</b>			
	Select one course each from any two previous categories except Composition.			
	<b>TOTAL</b>			

Electives Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
	<b>6 hours minimum</b> <i>Students are encouraged to take US 10097 Destination Kent State at KSU-Stark or ASD 101 Student Success Seminar in Arts and Sciences at SSC as part of their elective selections.</i>			
<b>TOTAL</b>				
<b>TOTAL CREDIT HOURS (60 hrs. minimum)</b>				

Students wishing to transfer to Kent State University for a baccalaureate degree completion through the College of Arts and Sciences are advised to visit <http://www.kent.edu/gps/index.cfm> for details on specific majors and their requirements.

*\*Students may use ARTH 22006 and ARTH 22007 in technical requirements and in the Humanities and Fine Arts section. However, this may increase the number of elective hours a student will take.*

^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.

## STUDENT ADVISING NOTES

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.



# Liberal Arts Division ASSOCIATE OF ARTS

7103

## Dual Associate of Arts Degree Program

### Fine Arts – Music Track

**\*Notes:** Students must take a minimum of 15 hours at Kent State University Stark Campus and 15 hours at Stark State College and maintain a minimum GPA of 2.0 overall at both Kent State University Stark Campus and Stark State College.

**Effective Summer 2012**

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>Required Courses</b>				
MUS 11121 (KSU)	Music Theory	3	<i>Placement test or MUS 11111</i>	
MUS 17111 (KSU)	Piano Class	1	<i>Placement test</i>	
MUS 25xxx (KSU) Or 45xxx	Major Ensemble (2 semesters)	2	<i>Please consult KSU catalog</i>	
MUS 36xxx (KSU)	Applied Music Courses (4 semesters) Or Studio Musicianship	8	<i>Please consult KSU catalog</i>	
	<b>Hours Required</b>	<b>14</b>		
MUS 11110 (KSU)	Music Fundamentals	3	<i>Placement test-could be required before taking MUS 11111</i>	
MUS 11111 (KSU)	Music Rudiments	3	<i>Placement test-could be required before taking MUS 11121</i>	
MUS 11122 (KSU)	Music Theory	3	<i>MUS 11121</i>	
MUS 21121	Music Theory to 1750	3		
MUS 21122	Music Theory from 1750 to 1900	3	<i>MUS 21121</i>	
	Studio Ensemble (can be repeated)			
US 10097 (KSU) Or ASD 101 (SSC)	Destination Kent State (KSU-Stark) or Student Success Seminar in Arts and Sciences (Stark State College)	1	<i>Please consult KSU catalog or SSC catalog</i>	
MUS 31211	Composition	2		
MUS 25311 (KSU)	Chamber Music	1	<i>Please consult KSU catalog</i>	
MUS 42161 (KSU)	History of Jazz	3	<i>Please consult KSU catalog</i>	
MUS 47012 (KSU)	Folk Guitar Class I	2	<i>Please consult KSU catalog</i>	
MUS 47311 (KSU)	Voice Class	1	<i>Please consult KSU catalog</i>	
<b>TOTAL</b>		<b>24</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>Composition</b>	<b>6 credit hours minimum</b>			
ENG124	College Composition <sup>^</sup> -or ENG 11011 College English I (KSU)	3	ENG 105 or Proficiency	
ENG231	College Composition II -or ENG 21011 College English II (KSU)	3	ENG 124	
<b>Mathematics, Critical Reasoning</b>	<b>3 credit hours minimum</b>			
MTH 125	College Algebra <sup>^</sup>	4	MTH 123 or Proficiency	
MTH 126	Precalculus <sup>^</sup>	4	MTH 125 or Proficiency	

MTH 221	Concepts of Calculus^	3	MTH 126 or Proficiency	
MTH 222	Statistics^	3	MTH 123 or Proficiency	
MTH 223	Analytical Geometry-Calculus I^	4	MTH 126 or Proficiency	
	<i>-or select from Mathematics or Critical Reasoning on KSU Core list</i>			
<b>Humanities and Fine Arts</b>	<b>9 credit hours minimum</b>			
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 to 1877	3		
HIS122	U.S. History from 1877	3		
PHL 122	Ethics	3		
	<i>-or select from KSU Core Humanities courses in Classics, English, History, Pan-African Studies, Philosophy, Communication, Architecture</i>			
MUS 22121(KSU)	Music as a World Phenomenon (required)	3		
MUS 22111 (KSU)	Understanding Music (required)	3		
<b>Social Sciences</b>	<b>6 credit hours minimum-courses must be in two subject areas</b>			
PSC 121	Political Science	3		
PSY 121	General Psychology^	3	IDS 102 or Proficiency	
PSY 122	Psychology of Adjustment	3	PSY121	
PSY 123	Human Growth & Development	3	PSY121	
PSY 221	Abnormal Psychology	3	PSY121	
SOC 121	Sociology^	3	IDS 102 or Proficiency	
SOC 123	Dynamics of the Family	3		
SOC 225	Cultural Diversity	3		
BUS 122	Basic Economics	3	IDS 102 or Proficiency	
BUS 221	Microeconomics	3	IDS 102 or Proficiency	
BUS 222	Macroeconomics	3	IDS 102 or Proficiency	
	<i>-or- select from KSU Core list for Anthropology, Conflict Management, Economics, Geography, Gerontology, Journalism, Justice Studies, Political Science, Psychology, or Sociology</i>			
<b>Basic Sciences</b>	<b>7 hours minimum</b>		<i>Coursework must include at least one of the Basic Sciences laboratory courses plus any specified pre-requisite and/or co-requisite courses.</i>	
BIO 101	Intro to Anatomy & Physiology (non-lab)^+	3	IDS102 or proficiency	
BIO 121	Anatomy & Physiology I	4	HS Biology 2 or BIO 101 or BIO 127	
BIO 122	Anatomy & Physiology II	4	BIO 121 or BIO 123	
BIO 126	Science, Energy, & the Environment	4		
BIO 127	Human Biology	4		
BIO 141	General Biology I	4		

BIO 142	General Biology II	4		
CHM 101	Intro to Chemistry (non-lab)^+	4	MTH 123 or Proficiency	
CHM 121	General, Organic, and Bio Chemistry I	4	CHM 101 or HS Chemistry 2	
CHM 122	General, Organic, and Bio Chemistry II	4	CHM 121	
CHM 141	General Chemistry I	5	CHM 101 or HS Chemistry 2	
CHM 142	General Chemistry II	5		
PHY 101	Principles of Physics^	4	MTH 123 or Proficiency & IDS102 or Proficiency	
PHY 121	College Physics I with Algebra	4	MTH 126 or (MTH 125 and MTH 128)	
PHY 122	College Physics II with Algebra	4	PHY 121	
	<i>-or select from KSU Core list for Anthropology, Biological Sciences, Chemistry, Geology, or Physics</i>			
<b>Additional SSC Transfer Module/KSU Core Requirements</b>	<i>6 hours minimum</i>			
	Select one course each from any two previous categories except Composition.			
	<b>TOTAL</b>			
<b>Electives Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
	<b>TOTAL</b>			
	<b>TOTAL CREDIT HOURS (60 hrs. minimum)</b>			

Students wishing to transfer to Kent State University for a baccalaureate degree completion through the College of Arts and Sciences are advised to visit <http://www.kent.edu/gps/index.cfm> for details on specific majors and their requirements.

^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.

## STUDENT ADVISING NOTES

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

Reviewed 3/2012  
Revised 2/2012





# **Liberal Arts ASSOCIATE OF ARTS**

## **Dual Associate of Arts Degree Program**

### **Info Tech Track**

**\*Notes:** Students must take a minimum of 15 hours at Kent State University Stark Campus and 15 hours at Stark State College and maintain a minimum GPA of 2.0 overall at both Kent State University Stark Campus and Stark State College.

### **Effective Summer 2012**

<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
<b>Composition</b>	<b>6 hours minimum</b>			
ENG124	College Composition <sup>^</sup> -or ENG 11011 College English I (KSU)	3	ENG 105 or Proficiency	
ENG231	College Composition II -or ENG 21011 College English II (KSU)	3	ENG 124	
<b>Mathematics, Critical Reasoning</b>	<b>3 hours minimum</b>			
MTH 125	College Algebra <sup>^</sup>	4	MTH 123 or Proficiency	
MTH 126	Precalculus <sup>^</sup>	4	MTH 125 or Proficiency	
MTH 221	Concepts of Calculus <sup>^</sup>	3	MTH 126 or Proficiency	
MTH 222	Statistics <sup>^</sup>	3	MTH 123 or Proficiency	
MTH 223	Analytical Geometry-Calculus I <sup>^</sup>	4	MTH 126 or Proficiency	
	-or select from Mathematics or Critical Reasoning on KSU Core list			
<b>Humanities and Fine Arts</b>	<b>9 hours minimum-three hours must be in fine arts</b>			
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 to 1877	3		
HIS122	U.S. History from 1877	3		
PHL 122	Ethics	3		
	-or select from KSU Core Humanities courses in Classics, English, History, Pan-African Studies, Philosophy, Communication, Architecture, Art History, Music, or Theatre			
<b>Social Sciences</b>	<b>6 hours minimum-courses must be in two subject areas</b>			
PSY 121	General Psychology <sup>^</sup>	3	IDS 102 or Proficiency	
SOC 121	Sociology <sup>^</sup>	3	IDS 102 or Proficiency	
PSC 121	Political Science	3		
SOC 123	Dynamics of the Family	3		
SOC 225	Cultural Diversity	3		
PSY 122	Psychology of Adjustment	3	PSY 121	
PSY 123	Human Growth & Development	3	PSY 121	
PSY 221	Abnormal Psychology	3	PSY 121	

BUS 122	Basic Economics^	3	IDS 102 or Proficiency	
BUS 221	Microeconomics^	3	IDS 102 or Proficiency	
BUS 222	Macroeconomics^	3	IDS 102 or Proficiency	
	<i>-or- select from KSU Core list for Anthropology, Conflict Management, Economics, Geography, Gerontology, Journalism, Justice Studies, Political Science, Psychology, or Sociology</i>			
<b>Basic Sciences</b>	<b>7 hours minimum</b>		<i>Coursework must include at least one of the Basic Sciences laboratory courses plus any specified pre-requisite and/or co-requisite courses.</i>	
BIO 101	Intro to Anatomy & Physiology (non-lab)^+	3	IDS102 or proficiency	
BIO 121	Anatomy & Physiology I	4	HS Biology 2 or BIO 101 or BIO 127	
BIO 122	Anatomy & Physiology II	4	BIO 121 or BIO 123	
BIO 126	Science, Energy, & the Environment	4		
BIO 127	Human Biology	4		
BIO 141	General Biology I	4		
BIO 142	General Biology II	4		
CHM 101	Intro to Chemistry (non-lab)^+	4	MTH 123 or Proficiency	
CHM 121	General, Organic, and Bio Chemistry I	4	CHM 101 or HS Chemistry 2	
CHM 122	General, Organic, and Bio Chemistry II	4	CHM 121	
CHM 141	General Chemistry I	5	CHM 101 or HS Chemistry 2	
CHM 142	General Chemistry II	5		
PHY 101	Principles of Physics^	4	MTH 123 or Proficiency & IDS 102 or Proficiency	
PHY 121	College Physics I with Algebra	4	MTH 126 or (MTH 125 & MTH 128)	
PHY 122	College Physics II with Algebra	4	PHY 121	
	<i>-or select from KSU Core list for Anthropology, Biological Sciences, Chemistry, Geology, or Physics</i>			
<b>Additional SSC Transfer Module/KSU Core Requirements</b>	<b>6 hours minimum</b> <i>Select one course each from any two previous categories except Composition</i>			
	<b>TOTAL</b>			
<b>Electives Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
	<b>23 hours minimum</b> <i>Students are encouraged to take US 10097 Destination Kent State at KSU-Stark or ASD 101 Student Success Seminar in Arts and Sciences at SSC as part of their elective selections.</i>			





## Liberal Arts ASSOCIATE OF ARTS

### Dual Associate of Arts Degree Program

#### Math Science Track

**\*Notes:** Students must take a minimum of 15 hours at Kent State University Stark Campus and 15 hours at Stark State College and maintain a minimum GPA of 2.0 overall at both Kent State University Stark Campus and Stark State College.

### Effective Summer 2012

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>Composition</b>	<b>6 hours minimum</b>			
ENG124	College Composition <sup>^</sup> -or ENG 11011 College English I (KSU)	3	ENG 105 or Proficiency	
ENG231	College Composition II -or ENG 21011 College English II (KSU)	3	ENG 124	
<b>Mathematics, Critical Reasoning</b>	<b>3 hours minimum</b>			
MTH 125	College Algebra <sup>^</sup>	4	MTH 123 or Proficiency	
MTH 126	Precalculus <sup>^</sup>	4	MTH 125 or Proficiency	
MTH 222	Statistics <sup>^</sup>	3	MTH 123 or Proficiency	
MTH 221	Concepts of Calculus <sup>^</sup>	3	MTH 126 or Proficiency	
	-or select from Mathematics or Critical Reasoning on KSU Core list			
<b>Humanities and Fine Arts</b>	<b>9 hours minimum</b>			
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 to 1877	3		
HIS122	U.S. History from 1877	3		
PHL 122	Ethics	3		
	-or select from KSU Core Humanities courses in Classics, English, History, Pan-African Studies, Philosophy, Communication, Architecture, Art History, Music, or Theatre			
<b>Social Sciences</b>	<b>6 hours minimum</b>			
PSY 121	General Psychology <sup>^</sup>	3	IDS 102 or Proficiency	
SOC 121	Sociology <sup>^</sup>	3	IDS 102 or Proficiency	
PSC 121	Political Science	3		
SOC 123	Dynamics of the Family	3		
SOC 225	Cultural Diversity	3		
PSY 122	Psychology of Adjustment	3	PSY 121	
PSY 123	Human Growth & Development	3	PSY 121	
PSY 221	Abnormal Psychology	3	PSY 121	
BUS 122	Basic Economics <sup>^</sup>	3	IDS 102 or Proficiency	







# Liberal Arts ASSOCIATE OF ARTS

7105

## Dual Associate of Arts Degree Program

### General Studies Track

**\*Notes:** Students must take a minimum of 15 hours at Kent State University Stark Campus and 15 hours at Stark State College and maintain a minimum GPA of 2.0 overall at both Kent State University Stark Campus and Stark State College.

Effective Summer 2012

NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>Composition</b>	<b>6 hours minimum</b>			
ENG124	College Composition <sup>^</sup> -or ENG 11011 College English I (KSU)	3	ENG 105 or Proficiency	
ENG231	College Composition II -or ENG 21011 College English II (KSU)	3	ENG 124	
<b>Mathematics, Critical Reasoning</b>	<b>3 hours minimum</b>			
MTH 125	College Algebra <sup>^</sup>	4	MTH 123 or Proficiency	
MTH 126	Precalculus <sup>^</sup>	4	MTH 125 or Proficiency	
MTH 221	Concepts of Calculus <sup>^</sup>	3	MTH 126 or Proficiency	
MTH 222	Statistics <sup>^</sup>	3	MTH 123 or Proficiency	
MTH 223	Analytical Geometry-Calculus I <sup>^</sup>	4	MTH 126 or Proficiency	
	-or select from Mathematics or Critical Reasoning on KSU Core list			
<b>Humanities and Fine Arts</b>	<b>9 hours minimum- three hours must be in Fine Arts</b>			
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 to 1877	3		
HIS122	U.S. History from 1877	3		
PHL 122	Ethics	3		
	-or select from KSU Core Humanities courses in Classics, English, History, Pan-African Studies, Philosophy, Communication, Architecture, Art History, Music, or Theatre			
<b>Social Sciences</b>	<b>6 hours minimum-courses must be in two subject areas</b>			
PSY 121	General Psychology <sup>^</sup>	3	IDS 102 or Proficiency	
SOC 121	Sociology <sup>^</sup>	3	IDS 102 or Proficiency	
PSC 121	Political Science	3		
SOC 123	Dynamics of the Family	3		
SOC 225	Cultural Diversity	3		
PSY 122	Psychology of Adjustment	3	PSY 121	
PSY 123	Human Growth & Development	3	PSY 121	

PSY 221	Abnormal Psychology	3	PSY 121	
BUS 122	Basic Economics^	3	IDS 102 or Proficiency	
BUS 221	Microeconomics^	3	IDS 102 or Proficiency	
BUS 222	Macroeconomics^	3	IDS 102 or Proficiency	
	<i>-or- select from KSU Core list for Anthropology, Conflict Management, Economics, Geography, Gerontology, Journalism, Justice Studies, Political Science, Psychology, or Sociology</i>			
<b>Basic Sciences</b>	<b>7 hours minimum</b> <i>Coursework must include at least one of the Basic Sciences laboratory courses plus any specified pre-requisite and/or co-requisite courses.</i>			
BIO 101	Intro to Anatomy & Physiology (non-lab)^+	3	IDS102 or proficiency	
BIO 121	Anatomy & Physiology I	4	HS Biology 2 or BIO 101 OR BIO 127	
BIO 122	Anatomy & Physiology II	4	BIO 121 or BIO 123	
BIO 126	Science, Energy, & the Environment	4		
BIO 127	Human Biology	4		
BIO 141	General Biology I	4		
BIO 142	General Biology II	4		
CHM 101	Intro to Chemistry (non-lab)^+	4	MTH 123 or Proficiency	
CHM 121	General, Organic, and Bio Chemistry I	4	CHM 101 or HS Chemistry 2	
CHM 122	General, Organic, and Bio Chemistry II	4	CHM 121	
CHM 141	General Chemistry I	5	CHM 101 or HS Chemistry 2	
CHM 142	General Chemistry II	5		
PHY 101	Principles of Physics^	4	MTH 123 or Proficiency & IDS 102 or Proficiency	
PHY 121	College Physics I with Algebra	4	MTH 126 or (MTH 125 & MTH 128)	
PHY 122	College Physics II with Algebra	4	PHY 121	
	<i>-or select from KSU Core list for Anthropology, Biological Sciences, Chemistry, Geology, or Physics</i>			
<b>Additional SSC Transfer Module/KSU Core Requirements</b>	<b>6 hours minimum</b>			
	Select one course each from any two previous categories except Composition.			
	<b>TOTAL</b>			



Electives Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
	<i>Students are encouraged to take US 10097 Destination Kent State at KSU-Stark or ASD101 Student Success Seminar in Arts and Sciences at SSC as part of their elective selections.</i>	23		
<b>TOTAL</b>				
<b>TOTAL CREDIT HOURS (60 hrs. minimum)</b>				

Students wishing to transfer to Kent State University for a baccalaureate degree completion through the College of Arts and Sciences are advised to visit <http://www.kent.edu/gps/index.cfm> for details on specific majors and their requirements.

^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.

## STUDENT ADVISING NOTES

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.



# LIBERAL ARTS ASSOCIATE OF ARTS

7215

## COMMUNICATION

Effective Summer 2012

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>CORE CLASSES (required)</b>				
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
COM125	Introduction to Communication Theory^	3	IDS102 or Proficiency	
<b>ELECTIVES (Choose 4 of the following)</b>				
COM123	Small Group Communication	3	ENG 124	
COM126	Introduction to Mass Communication	3		
COM223	Interviewing I	3	COM 122	
COM225	Sex, Gender, and Culture	3		
COM226	Organizational Communication	3		
COM227	Intercultural Communication	3	COM122	
COM228	Nonverbal Communication	3	COM122	
COM229	Persuasion^	3	IDS102 or Proficiency	
COM230	Argumentation^	3	COM121 & IDS102 or Proficiency	
<b>TOTAL</b>		<b>21</b>		
<b>COMPUTER APPLICATIONS</b>				
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
<b>ENGLISH COMPOSITION (6 credit hours minimum)</b>				
ENG124	College Composition ( <b>required</b> )^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
ENG230	Business Communication	3	ENG124	
ENG231	College Composition II	3	ENG124	
ENG126	Technical Grammar and Style	3	ENG124 & ENG231	
<b>SOCIAL &amp; BEHAVIORAL SCIENCES (9 credit hours minimum)</b>				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity ( <b>required</b> )	3		
BUS122	Basic Economics^	3	IDS102 or Proficiency	
<b>ARTS &amp; HUMANITIES (12 credit hours minimum)</b>				
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 to 1877	3		

HIS122	U.S. History from 1877	3		
<b>SCIENCES &amp; MATHEMATICS: 3 semester credit hours in Math minimum and 6 semester credit hours in Natural and Physical Sciences minimum (1 lab course required)</b>				
	<u>Natural and Physical Sciences</u>			
BIO121	Anatomy & Physiology I (lab)+	4	HS BIO 2 or BIO101 or BIO127	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4		
BIO221	Principles of Microbiology (lab)	4	BIO122, BIO123, or BIO141	
CHM101	Intro. to Chemistry <sup>^</sup> +	4	MTH123 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab)+	4	HS CHM 2 or CHM101	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)	5	HS CHM 2 or CHM101	
CHM142	General Chemistry II (lab)	5		
PHY101	Principles of Physics (lab) <sup>^</sup>	4	MTH123 or Proficiency & IDS102 or Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH126 or (MTH125 & MTH 128)	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
	<u>Mathematics</u>			
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency	
MTH126	Precalculus <sup>^</sup>	4	MTH125 or Proficiency	
MTH128	Basic Trigonometry <sup>^</sup>	1	MTH123 or Proficiency	
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency	
MTH221	Concepts of Calculus <sup>^</sup>	3	MTH126 or Proficiency	
MTH223	Analytic Geometry-Calculus I <sup>^</sup>	4	MTH126 or Proficiency	
<b>TOTAL</b>		<b>39-42</b>		
<b>TOTAL CREDIT HOURS</b>		<b>60-63</b>		

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

+ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 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.

## COMMUNICATION

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre-requisites</u>
ENG124	College Composition (required)^	3	ENG105 or Proficiency
ITD122	Computer Applications for Professionals^	3	-
	<i>Communication Elective</i> ***	3	Check for Pre-requisite
COM121	Effective Speaking	3	-
	<i>Arts and Humanities Elective</i> ****	<u>3</u>	Check for Pre-requisite
		15	
<u>Second Semester</u>			
	<i>English Composition Elective</i> *****	3	Check for Pre-requisite
COM122	Interpersonal Communication	3	-
	<i>Science &amp; Mathematics Elective</i> **	3/4	Check for Pre-requisite
	<i>Communication Elective</i> ***	3	Check for Pre-requisite
	<i>Arts and Humanities Elective</i> ****	<u>3</u>	Check for Pre-requisite
		15/16	
<u>Third Semester</u>			
COM125	Intro to Communication Theory^	3	IDS102 or Proficiency
	<i>Science &amp; Mathematics Elective</i> **	3/4	Check for Pre-requisite
SOC225	Cultural Diversity	3	-
	<i>Arts and Humanities Elective</i> ****	3	Check for Pre-requisite
	<i>Social &amp; Behavioral Science Elective</i> *	<u>3</u>	Check for Pre-requisite
		15/16	
<u>Fourth Semester</u>			
	<i>Science &amp; Mathematics Elective</i> **	3/4	Check for Pre-requisite
	<i>Communication Elective</i> ***	3	Check for Pre-requisite
	<i>Communication Elective</i> ***	3	Check for Pre-requisite
	<i>Social &amp; Behavioral Science Elective</i> *	3	Check for Pre-requisite
	<i>Arts and Humanities Elective</i> ****	<u>3</u>	Check for Pre-requisite
		15/16	
<b>TOTAL CREDITS</b>		<b>60/63</b>	

^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.

\*Select from PSC121, PSY121, SOC121, SOC225, BUS122

\*\*Select from BIO121, BIO122, BIO124, BIO125, BIO126, BIO127, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101, PHY121, PHY122, MTH125, MTH126, MTH128, MTH222, MTH221, MTH223

\*\*\*Select from COM123, COM126, COM223, COM225, COM226, COM227, COM228, COM229, COM230

\*\*\*\*Select from PHL122, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122

\*\*\*\*\*Select from ENG126, ENG221, ENG230, ENG231

Reviewed 3/2012

Revised 2/2012



# LIBERAL ARTS DIVISION ASSOCIATE OF ARTS

7201

## English Composition Effective Summer 2012

Course	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>FRESHMAN EXPERIENCE</b>				
ASD101	Student Success Seminar	1		
<b>COMPUTER APPLICATIONS</b>				
ITD122	Computer Applications for Professionals (required)^	3	ITD100 or Proficiency	
<b>ENGLISH COMPOSITION: 6 credit hours required</b>				
ENG124	College Composition ^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
<b>COMPOSITION ELECTIVES: 6 credit hours minimum</b>				
ENG238	Intro to Creative Writing	3	ENG124	
ENG221	Technical Report Writing	3	ENG124	
ENG227	Writing for the Media	3	ENG124	
ENG228	Writing for the Web	3	ENG124 & ENG231	
ENG229	Grant Writing	3	ENG124 & ENG231	
ENG230	Business Communication	3	ENG124	
ENG232	Scriptwriting	3	ENG124; ENG227	
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 9 credit hours minimum</b>				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity (required)	3		
PSY122	Psychology of Adjustment	3		
PSY123	Human Growth & Development	3	PSY121	
PSY124	Psychology Of Work	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	
<b>ARTS &amp; HUMANITIES: 12 credit hours minimum</b>				
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 to 1877	3		
HIS122	U.S. History from 1877	3		
<b>SCIENCES &amp; MATHEMATICS: 3 semester credit hours in Math minimum and 6 semester credit hours in Natural and Physical Sciences minimum (1 lab course required)</b>				
	<u>Natural and Physical Sciences</u>			
BIO121	Anatomy & Physiology I (lab)	4	HS BIO 2 or BIO101+ or BIO127	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4		
BIO221	Principles of Microbiology (lab)	4	BIO122, BIO123 or BIO 141	
CHM101	Intro. to Chemistry^+	4	MTH123 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab)	4	HS CHM 2 or CHM101	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)	5	HS CHM 2 or CHM101	
CHM142	General Chemistry II (lab)	5		
PHY101	Principles of Physics (lab)	4	MTH123 or Proficiency & IDS102 or Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH126 or (MTH125 & MTH128)	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
	<u>Mathematics</u>			
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Precalculus	4	MTH125 or Proficiency	
MTH128	Basic Trigonometry	1	MTH123 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
MTH221	Concepts of Calculus	3	MTH126 or Proficiency	
MTH223	Analytic Geometry-Calculus I	4	MTH126 or Proficiency	

<b>ADDITIONAL ELECTIVES IN COMPOSITION TO COMPLETE DEGREE</b>	<b>14</b>		
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### ASSOCIATE OF ARTS IN ENGLISH ELECTIVES

The Associate of Arts in English Degree requires a minimum of **60 credit hours**. Students should choose elective courses from the list below, select additional courses from the previous 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.

	<b>ELECTIVES</b>			
<b>English</b>				
ENG125	Technical Editing and Layout	3	ENG124 and ENG231	
ENG126	Technical Grammar and Style	3	ENG124 and ENG231	
ENG222	Health Information Writing	3	ENG124 and HIT223	
COM121	Effective Speaking	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.

### STUDENT ADVISING NOTES

#### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.



# LIBERAL ARTS ASSOCIATE OF ARTS

7200

## ENGLISH-LITERATURE MAJOR Effective Summer 2012

Course	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>FRESHMAN EXPERIENCE</b>				
ASD101	Student Success Seminar in Arts & Sciences	1		
<b>COMPUTER APPLICATIONS</b>				
ITD122	Computer Applications for Professionals (required)^	3	ITD100 or Proficiency	
<b>ENGLISH COMPOSITION: 6 credit hours required</b>				
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
<b>LITERATURE ELECTIVES: 6 credit hours minimum</b>				
ENG235	Intro 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	
ENG240	Women's Literature	3	ENG124	
ENG239	Film Appreciation	3	ENG124	
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 9 credit hours minimum</b>				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity (required)	3		
PSY122	Psychology of Adjustment	3	PSY121	
PSY123	Human Growth & Development	3	PSY121	
PSY124	Psychology Of Work	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	
<b>ARTS &amp; HUMANITIES: 12 credit hours minimum</b>				
PHL122	Ethics	3		
ENG233	British Literature: Medieval to 1785	3	ENG124	



ENG234	British Literature: 1785 to Present	3	ENG124	
HIS121	U.S. History to 1877	3		
HIS122	U.S. History from 1877	3		
<b>SCIENCES &amp; MATHEMATICS: 3 semester credit hours in Math minimum and 6 semester credit hours in Natural and Physical Sciences minimum (1 lab course required)</b>				
	<u>Natural and Physical Sciences</u>			
BIO121	Anatomy & Physiology I (lab)+	4	HS BIO 2 or BIO101 or BIO127	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4		
BIO221	Principles of Microbiology (lab)	4	BIO122, BIO123, or BIO141	
CHM101	Intro. to Chemistry^+	4	MTH123 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab)+	4	HS CHM 2 or CHM101	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)+	5	HS CHM 2 or CHM101	
CHM142	General Chemistry II (lab)	5		
PHY101	Principles of Physics (lab)	4	MTH123 or Proficiency & IDS102 or Proficiency	
PHY121	College Physics I with Algebra (lab)	4	MTH126 or (MTH125 & MTH128)	
PHY122	College Physics II with Algebra (lab)	4	PHY121	
	<u>Mathematics</u>			
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Precalculus^	4	MTH125 or Proficiency	
MTH128	Basic Trigonometry^	1	MTH123 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
MTH221	Concepts of Calculus	3	MTH126 or Proficiency	
MTH223	Analytic Geometry-Calculus I	4	MTH126 or Proficiency	
<b>ADDITIONAL ELECTIVES IN COMPOSITION OR LITERATURE TO COMPLETE DEGREE</b>		<b>14</b>		

## ASSOCIATE OF ARTS IN ENGLISH ELECTIVES

The Associate of Arts in English Degree requires a minimum of **60 credit hours**. Students should choose elective courses from the list below, select additional courses from the previous 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.

<b>ELECTIVES</b>
<b>English</b>
ENG125 Technical Editing and Layout
ENG126 Technical Grammar and Style
ENG222 Health Information Writing
ENG227 Writing for Media
ENG228 Writing for the Web
ENG229 Grant Writing
COM121 Effective Speaking

^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.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 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.

**ENGLISH-LITERATURE MAJOR****Effective Summer 2012**

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre-requisites</u>
ASD101	Student Success Seminar	1	-
ENG124	College Composition (required)^	3	ENG105 or Proficiency
ITD122	Computer Applications for Professionals (required)^	3	-
	<i>Math Elective</i> *	3/4	Check for Pre-requisite
	<i>Arts &amp; Humanities Elective</i> **	3	Check for Pre-requisite
	<i>Social &amp; Behavioral Science Elective</i> ***	3	Check for Pre-requisite
		16/17	
<u>Second Semester</u>			
ENG231	College Composition II (required)	3	ENG124
SOC225	Cultural Diversity (required)	3	-
	<i>Natural and Physical Sciences Elective</i> ****	3/4	Check for Pre-requisite
	<i>Arts &amp; Humanities Elective</i> **	3	Check for Pre-requisite
	<i>Literature Elective</i> <sup>5</sup>	3	Check for Pre-requisite
		15/16	
<u>Third Semester</u>			
	<i>Arts &amp; Humanities Elective</i> **	3	Check for Pre-requisite
	<i>Natural and Physical Sciences Elective</i> ****	3/4	Check for Pre-requisite
	<i>Social &amp; Behavioral Science Elective</i> ***	3	Check for Pre-requisite
	<i>Literature Elective</i> *****	3	Check for Pre-requisite
	<i>Additional Literature Elective</i> ****	3	Check for Pre-requisite
		15/16	
<u>Fourth Semester</u>			
	<i>Arts &amp; Humanities Elective</i> **	3	Check for Pre-requisite
	<i>Additional Literature Elective</i> *****	3	Check for Pre-requisite
	<i>Additional Literature Elective</i> *****	3	Check for Pre-requisite
	<i>Additional Literature Elective</i> *****	3	Check for Pre-requisite
	<i>Additional Literature Elective</i> *****	3	Check for Pre-requisite
		15	
	<b>TOTAL CREDITS</b>	<b>61/64</b>	

^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.

<sup>1</sup>Select from MTH125, MTH126, MTH128, MTH222, MTH221, MTH223

<sup>2</sup>Select from PHL122, ENG233, ENG234, HIS121, HIS122

<sup>3</sup>Select from PSC121, PSY121, SOC121, SOC225, PSY122, PSY123, PSY124, PSY221, SOC122, SOC123, SOC221, BUS122, BUS221, BUS222

<sup>4</sup>Select from BIO121, BIO122, BIO124, BIO125, BIO126, BIO127, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101, PHY121, PHY122

<sup>5</sup>Select from ENG235, ENG236, ENG237, ENG241, ENG240, ENG239

<sup>6</sup>Select from ENG235, ENG236, ENG237, ENG241, ENG240, ENG239



# LIBERAL ARTS ASSOCIATE OF ARTS

7210

## PSYCHOLOGY

Effective Summer 2012

Course	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>FRESHMAN EXPERIENCE</b>				
ASD101	Student Success Seminar	1		
<b>COMPUTER APPLICATIONS</b>				
ITD122	Computer Applications for Professionals (required) ^	3		
<b>WRITTEN &amp; ORAL COMMUNICATION: 6 credit hours minimum</b>				
ENG124	College Composition (required) ^	3	ENG105 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 Communications	3	ENG124	
<b>BEHAVIORAL SCIENCES: 21 credit hours minimum</b>				
PSY121	General Psychology^	3	IDS102 or Proficiency	
PSY123	Human Growth & Development	3	PSY121	
PSY124	Psychology of Work	3		
PSY220	Social Psychology	3	PSY 121	
PSY221	Abnormal Psychology	3	PSY121	
PSY 222	Psychological Aspects of Therapy^	3	IDS102 or Proficiency	
PSY 229	Psychological Methods	3	PSY123,PSY220,PSY221, PSY222	
<b>SOCIOLOGICAL SCIENCES: 6 credit hours minimum</b>				
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC123	Dynamics of the Family	3		
SOC221	Social Problems	3	SOC121	
SOC225	Cultural Diversity (required)	3		
<b>ELECTIVES: 3 credit hours</b>				
PSY122	Psychology of Adjustment	3	PSY 121	
PSY125	Child Development	3		
COM 223	Interviewing	3	COM 122	
SWK125	Substance Abuse	3		
GER 121	Gerontology	3		

<b>ARTS &amp; HUMANITIES: 12 credit hours minimum</b>				
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 to 1877	3		
HIS122	U.S. History from 1877	3		
<b>SCIENCES &amp; MATHEMATICS: 3 semester credit hours in Math minimum and 7 semester credit hours in Natural and Physical Sciences minimum (1 lab course required)</b>				
	<u>Natural and Physical Sciences</u>			
BIO121	Anatomy & Physiology I (lab)+	4	HS BIO 2 or BIO101 or BIO127	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4	BIO141	
BIO221	Principles of Microbiology (lab)	4	BIO122 OR BIO123	
CHM101	Intro. to Chemistry <sup>^</sup> +	4	MTH123 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab)+	4	HS CHM 2 or CHM101	
CHM141	General Chemistry I (lab)	5	HS CHM 2 or CHM101	
CHM142	General Chemistry II (lab)	5	CHM141	
PHY101	Principles of Physics (lab) ^	4	MTH123 or Proficiency, IDS102 or Proficiency	
PHY121	Physics I (lab)	4	MTH125 or MTH128	
	<u>Mathematics</u>			
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency	
MTH126	Precalculus <sup>^</sup>	4	MTH125 or Proficiency	
MTH128	Basic Trigonometry <sup>^</sup>	1	MTH123 or Proficiency	
MTH222	Statistics <sup>^</sup>	3	MTH123 or Proficiency	
<b>TOTAL CREDITS REQUIRED</b>		<b>61-66</b>		

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

+ Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

Reviewed 3/2012

Revised 2/2012

## FULL-TIME STUDENT – ADVISING NOTES

**7210**

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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 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.

## **PSYCHOLOGY**

Effective Summer 2012

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre-requisites</u>
ASD101	Student Success Seminar	1	-
ITD122	Computer Applications for Professionals (required)^	3	-
ENG124	College Composition (required)^	3	ENG105 or Proficiency
PHL122	Ethics (required)	3	-
PSY121	General Psychology^	3	IDS102 or Proficiency
	<i>Social Science Elective</i> *****	<u>3</u>	Check for Pre-requisite
		16	
<u>Second Semester</u>			
	<i>Arts &amp; Humanities Elective</i> *	3	Check for Pre-requisite
	<i>Mathematics Elective</i> **	3/4	Check for Pre-requisite
	<i>Science Elective</i> ***	3/5	Check for Pre-requisite
PSY123	Human Growth & Development	3	PSY121
PSY220	Social Psychology	<u>3</u>	PSY121
		15/18	
<u>Third Semester</u>			
	<i>Science Elective</i> ***	3/5	Check for Pre-requisite
	<i>Arts &amp; Humanities Elective</i> *	3	Check for Pre-requisite
SOC225	Cultural Diversity (required)	3	-
PSY221	Abnormal Psychology	3	PSY121
PSY222	Psychological Aspects of Therapy	<u>3</u>	IDS 102 or Proficiency
		15/17	
<u>Fourth Semester</u>			
	<i>Arts &amp; Humanities Elective</i> *	3	Check for Pre-requisite
	<i>Written/Oral Communication Elective</i> ****	3	Check for Pre-requisite
PSY124	Psychology of Work	3	-
	<i>Elective</i> *****	3	Check for Pre-requisite
PSY229	Psychological Methods	<u>3</u>	Check for Pre-requisites
		15	
	<b>TOTAL CREDITS</b>	<b>61/66</b>	

^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.

\*Select from ENG233, ENG234, ENG236, ENG237, HIS121, HIS122

\*\*Select from MTH125, MTH126, MTH128, MTH222

\*\*\*Select from BIO121, BIO122, BIO124, BIO125, BIO126, BIO127, BIO141, BIO142, BIO221, CHM101, CHM121, CHM141, CHM142, PHY101, PHY121

\*\*\*\*Select from ENG221, ENG230, ENG231, COM121, COM122, COM123

\*\*\*\*\*Select from SOC121, SOC123, SOC221, SOC225

\*\*\*\*\*Select from PSY122, PSY125, COM223, SKW125, GER121

Reviewed 3/2012

Revised 2/2012



# LIBERAL ARTS ASSOCIATE OF APPLIED SCIENCE

1200

## **TECHNICAL COMMUNICATIONS** *Effective Summer 2012*

<b>TECHNICAL Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ENG125	Technical Editing and Layout	3	ENG124 & ENG231	
ENG126	Technical Grammar and Style	3	ENG124 & ENG231	
ENG221	Technical Report Writing	3	ENG124	
COM223	Interviewing I	3	COM122	
ENG250	Technical Communications Internship	3	Completed final semester	
ENG227	Writing for Media	3	ENG124	
ENG228	Writing for the Web	3	ENG124 & ENG231	
ENG229	Grant Writing	3	ENG124 & ENG 231	
<b>TECHNICAL ELECTIVES</b>	<b>Need 6 credits from list below:**</b>			
ECA138	Web Graphic Design	3	ECA228	
ECA228	Internet/Intranet Des & Dev^	3	IDS101 or Proficiency	
AOT128	DPT-Microsoft Publisher	3	ITD122 and IMT122	
AOT235	Legal Research and Writing	3		
IMT121	Interactive Media	3		
IMT122	Graphic Arts Design	3		
<b>TOTAL</b>		<b>33</b>		
<b>NON-TECH Course Number</b>	<b>Course Title</b>	<b>Credits</b>	<b>Pre- and Co-Requisites</b>	<b>Completed Sem./Year</b>
<b>Composition</b>	<b>Need 6 credits from list below:</b>			
ENG124	College Composition^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
<b>Arts &amp; Humanities</b>	<b>Need 3 credits from list below:***</b>			
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 to 1877	3		
HIS122	U.S. History from 1877	3		
<b>Mathematics</b>	<b>Need 3 credits from list below:*</b>			
MTH125	College Algebra^	4	MTH 123 or Proficiency	
MTH126	Precalculus^	4	MTH 125 or Proficiency	
MTH221	Concepts of Calculus	3	MTH 126 or Proficiency	
MTH222	Statistics^	3	MTH 123 or Proficiency	
MTH223	Analytical Geometry/Calculus	4	MTH 126 or Proficiency	

<b>Social Sciences</b>	<b>Need 6 credits from list below:</b>			
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC123	Dynamics of the Family	3		
PSY122	Psychology of Adjustment	3		
PSY123	Human Growth & Development	3	PSY121	
PSY221	Abnormal Psychology	3	PSY121	
BUS122	Basic Economics^	3	IDS 102 or Proficiency	
BUS221	Microeconomics^	3	IDS 102 or Proficiency	
BUS222	Macroeconomics^	3	IDS 102 or Proficiency	
<b>Basic Sciences</b>	<b>Need 7 credits from list below:</b>			
BIO101	Intro. to Anatomy & Physiology^+	3	IDS102 or Proficiency	
BIO121	Anatomy & Physiology I (lab course)	4	BIO101 or BIO127	
BIO122	Anatomy & Physiology II (lab course)	4	BIO121 or BIO123	
BIO126	Science, Energy & the Environment (lab course)	4		
BIO127	Human Biology (lab course)	4		
CHM101	Intro. to Chemistry^	4	MTH 123 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab course)	4	CHM101 or HS Chem 2	
CHM122	Gen., Org., & Bio Chemistry II (lab course)	4	CHM121	
PHY101	Principles of Physics (lab course)^	4	MTh123or Proficiency And IDS102 or Proficiency	
PHY121	College Physics I with Algebra (lab course)	4	MTH126 or (MTH125 & MTH128)	
PHY122	College Physics II with Algebra (lab course)	4	PHY 121	
<b>Communication</b>	<b>Need 6 credits from list below:***</b>			
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
COM123	Small Group Communication	3	ENG124	
COM125	Intro. To Comm. Theory^	3	IDS102 or Proficiency	
<b>Freshman Experience</b>				
ASD101	Student Success Seminar in Arts & Sciences	1		
<b>TOTAL</b>		<b>32</b>		
<b>TOTAL CREDIT HOURS</b>		<b>65</b>		

^ Based upon SSC placement score

\* Select from MTH125, MTH126, MTH221, MTH222, MTH223, PSC121, PSY121, SOC121, SOC123, SOC225, PSY122, PSY123, PSY221, BUS122, BUS221, BUS222, BIO101, BIO121, BIO122, BIO126, BIO127, CHM101, CHM121, CHM122, PHY101, PHY121, PHY122

\*\* Select from ECA138, ECA228, AOT128, AOT235, AOT131, IMT121, IMT122

\*\*\* Select from COM121, COM122, COM123, COM125

\*\*\*\*Select from PHL122, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122

+ 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.



## STUDENT ADVISING NOTES

1200

### Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

### *Technical Communications* *Effective Summer 2012*

<u>First Semester</u>		Credit Hours	Pre-Requisites
ENG124	College Composition^	3	ENG105, test scores
ASD101	Student Success Seminar in Arts & Sciences	1	
	Communication Electives***	6	
COM122	Interpersonal Communication	3	
ITD122	Computer Applications for Professionals^	<u>3</u>	ITD100 or Proficiency
		16	
<u>Second Semester</u>			
ENG231	College Composition II	3	ENG124
	Math, Science, or Social Science Electives*	6-8	
ENG221	Technical Report Writing	3	ENG124
	Technical Elective**	3	
ENG227	Writing for Media	<u>3</u>	ENG124
		18-20	
<u>Third Semester</u>			
ENG126	Technical Editing and Layout	3	ENG124 & ENG231
ENG125	Technical Grammar and Style	3	ENG124 & ENG231
COM223	Interviewing I	3	COM122
	Arts & Humanities Elective****	<u>7</u>	
		16	
<u>Fourth Semester</u>			
ENG228	Writing for the Web	3	ENG124 & ENG231
ENG229	Grant Writing	3	ENG124 & ENG231
ENG250	Technical Communications Internship	3	
	Communication Elective***	3	
	Technical Elective**	<u>3</u>	
		15	
<b>TOTAL CREDITS</b>		<b>65 - 68</b>	

^ Based upon SSC placement score

\* Select from MTH125, MTH126, MTH221, MTH222, MTH223, PSC121, PSY121, SOC121, SOC123, SOC225, PSY122, PSY123, PSY221, BUS122, BUS221, BUS222, BIO101, BIO121, BIO122, BIO126, BIO127, CHM101, CHM121, CHM122, PHY101, PHY121, PHY122

\*\* Select from ECA138, ECA228, AOT128, AOT235, IMT121, IMT122

\*\*\* Select from COM121, COM122, COM123, COM125

\*\*\*\*Select from PHL122, ENG233, ENG234, ENG236, ENG237, HIS121, HIS122

+ 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.



# MATHEMATICS ASSOCIATE OF SCIENCE

7500

## MATHEMATICS

Effective Summer 2012

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>WRITTEN &amp; ORAL COMMUNICATION: 6 credit hours minimum</b>				
ENG124	College Composition (required)^	3	ENG105 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	ENG124	
COM125	Intro. To Comm. Theory^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 9 credit hours minimum</b>				
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	
<b>ARTS &amp; HUMANITIES: 9 credit hours minimum</b>				
ENG233	British Literature I	3	ENG124	
ENG234	British Literature II	3	ENG124	
HIS121	U.S. History I	3		
HIS122	U.S. History II	3		
PHL122	Ethics ( required)	3		
<b>NATURAL &amp; PHYSICAL SCIENCES: 8 credit hours minimum (1 lab course required)</b>				
BIO121	Anatomy & Physiology I (lab)	4	HS BIO 2 or BIO101 or BIO127	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Pathophysiology (lab)	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment	4		
BIO127	Human Biology (lab)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4	BIO141	
BIO221	Principles of Microbiology (lab)	4	BIO122 OR BIO123	
CHM101	Intro. to Chemistry	4	MTH 123 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab)	4	CHM101	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)	5	CHM101	

CHM142	General Chemistry II (lab)	5	CHM141	
PHY101	Principles of Physics (lab)	4	MTH 123 or Proficiency	
<b>CORE MATHEMATICS &amp; DATA ANALYSIS COURSES: 23 credit hours minimum</b>				
MTH125	College Algebra (required)^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus (required)	4	MTH125	
MTH223	Analytic Geometry and Calculus I (required)	4	MTH126	
MTH224	Analytic Geometry and Calculus II (required)	4	MTH223	
MTH225	Analytic Geometry and Calculus III (required)	4	MTH224	
MTH226	Linear Algebra (required)	3	MTH126	
MTH227	Ordinary Differential Equations	3	MTH224	
MTH127	Discrete Mathematics	3	MTH226	
MTH222	Statistics	3	MTH123 or Proficiency	
<b>ADDITIONAL ELECTIVES FROM THIS SHEET TO COMPLETE DEGREE</b>		<b>6-8</b>		
<b>TOTAL CREDIT HOURS</b>		<b>61-63</b>		

^ Based upon SSC placement score

\* Select from BIO121, BIO122, BIO124, BIO125, BIO126, BIO127, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101 (1 CLASS NEEDS TO BE LAB)

\*\* Select from PSC121, PSY121, SOC121, BUS122, BUS221, BUS222

\*\*\* Select from MTH127, MTH222, MTH227

\*\*\*\* Select from ENG221, ENG230, ENG231, COM122, COM123, COM125, COM121

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MATHEMATICS**  
Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
MTH125	College Algebra <sup>^</sup>	4	MTH123 or Proficiency
ENG124	College Composition <sup>^</sup>	3	ENG105 or Proficiency
	Natural & Physical Sciences Elective*	3/4/5	
	(* 8 credit hours minimum, 1 lab course required)		
	Social & Behavioral Sciences Elective**	3	
	Arts & Humanities Elective*****	<u>3</u>	
		<b>16/17/18</b>	
<u>Second Semester</u>			
MTH126	Pre-calculus	4	MTH125 or Proficiency
SOC225	Cultural Diversity	3	
	Natural & Physical Sciences Elective*	3/4/5	
	(* 8 credit hours minimum, 1 lab course required)		
	Written & Oral Communication Elective****	<u>3</u>	
		<b>13/14/15</b>	
<u>Summer Semester</u>			
MTH223	Analytic Geometry & Calculus I	<u>4</u>	MTH126 or Proficiency
		<b>4</b>	
<u>Third Semester</u>			
MTH224	Analytic Geometry & Calculus II	4	MTH223
	Elective Math ***	3	
	Social & Behavioral Sciences Elective**	3	
	Arts & Humanities Elective*****	<u>3</u>	
		<b>13</b>	
<u>Fourth Semester</u>			
MTH225	Analytic Geometry & Calculus III	4	MTH224
MTH226	Linear Algebra	3	MTH126
	Elective Math***	3	
	Social & Behavioral Sciences Elective**	<u>3</u>	
		<b>13</b>	
	<b>TOTAL CREDITS</b>	<b>61-63</b>	

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

\* Select from BIO121, BIO122, BIO124, BIO125, BIO126, BIO127, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101 (1 CLASS NEEDS TO BE LAB)

\*\* Select from PSC121, PSY121, SOC121, BUS122, BUS221, BUS222

\*\*\* Select from MTH127, MTH222, MTH227

\*\*\*\* Select from ENG221, ENG230, ENG231, COM122, COM123, COM125, COM121



# MATHEMATICS ASSOCIATE OF SCIENCE

**7501**

## **MATHEMATICS-PRE-ACTUARIAL MATHEMATICS MAJOR**

**Effective Summer 2012**

Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>WRITTEN &amp; ORAL COMMUNICATION: 6 credit hours minimum</b>				
ENG124	College Composition (required)^	3	ENG105 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	ENG124	
COM125	Intro. To Comm. Theory^	3	IDS102 or Proficiency	
COM121	Effective Speaking	3		
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 9 credit hours minimum</b>				
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 (required)^	3	IDS102 or Proficiency	
BUS222	Macroeconomics (required)^	3	IDS102 or Proficiency	
<b>ARTS &amp; HUMANITIES: 9 credit hours minimum</b>				
ENG233	British Literature I	3	ENG124	
ENG234	British Literature II	3	ENG124	
HIS121	U.S. History I	3		
HIS122	U.S. History II	3		
PHL122	Ethics	3		
<b>NATURAL &amp; PHYSICAL SCIENCES: 8 credit hours minimum (1 lab course required)</b>				
BIO121	Anatomy & Physiology I (lab)	4	HS BIO 2 or BIO101 or BIO127	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Pathophysiology (lab)	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment	4		
BIO127	Human Biology (lab)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4	BIO141	
BIO221	Principles of Microbiology (lab)	4	BIO122 OR BIO123	
CHM101	Intro. to Chemistry^	4	MTH 123 or Proficiency	
CHM121	Gen., Org., & Bio Chemistry I (lab)	4	CHM101	
CHM122	Gen., Org., & Bio Chemistry II (lab)	4	CHM121	

CHM141	General Chemistry I (lab)	5	CHM101	
CHM142	General Chemistry II (lab)	5	CHM141	
PHY101	Principles of Physics (lab)	4	MTH 123 or Proficiency	
<b>CORE MATHEMATICS &amp; DATA ANALYSIS COURSES: 31 credit hours minimum</b>				
ACC132	Financial Accounting (required)	4	BUS124 or Proficiency	
BUS124	Business Analysis with Algebra	4		
MTH125	College Algebra (required)^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus (required)	4	MTH125	
MTH223	Analytic Geometry and Calculus I (required)	4	MTH126	
MTH224	Analytic Geometry and Calculus II (required)	4	MTH223	
MTH225	Analytic Geometry and Calculus III (required)	4	MTH224	
MTH226	Linear Algebra (required)	3	MTH126	
MTH227	Ordinary Differential Equations	3	MTH224	
MTH222	Statistics	3	MTH123 or Proficiency	
MTH127	Discrete Mathematics	3	MTH126	
<b>TOTAL CREDIT HOURS</b>		<b>63</b>		

^ Based upon SSC placement score

\* Select from BIO121, BIO122, BIO124, BIO125, BIO126, BIO127, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101 (1 CLASS NEEDS TO BE LAB)

\*\* Select from ENG221, ENG230, ENG231, COM122, COM123, COM125, COM121

\*\*\* Select from ENG233, ENG234, HIS121, HIS122, PHL122

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.

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**MATHEMATICS-PRE-ACTURIAL MATHEMATICS**

Effective Summer 2012

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
MTH125	College Algebra^	4	MTH123 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
BUS124	Business Analysis with Algebra	4	
BUS221	Microeconomics	<u>3</u>	IDS102 or Proficiency
		<b>14</b>	
<u>Second Semester</u>			
MTH126	Pre-Calculus	4	MTH125
ACC132	Financial Accounting	4	BUS124 or Proficiency
BUS222	Macroeconomics^	3	IDS102 or Proficiency
	Arts & Humanities Elective***	3	
	Written & Oral Communication Elective**	<u>3</u>	
		<b>17</b>	
<u>Summer Semester</u>			
MTH223	Analytic Geometry & Calculus I	<u>4</u>	MTH126
		<b>4</b>	
<u>Third Semester</u>			
MTH224	Analytic Geometry & Calculus II	4	MTH223
MTH226	Linear Algebra	3	MTH126
	Natural & Physical Sciences Elective*	3/4/5	
	Arts & Humanities Elective***	<u>3</u>	
		<b>13/14/15</b>	
<u>Fourth Semester</u>			
MTH225	Analytic Geometry & Calculus III	4	MTH224
SOC121	Cultural Diversity	3	
	Natural & Physical Sciences Elective*	3/4/5	
	Arts & Humanities Elective***	<u>3</u>	
		<b>13/14/15</b>	
<b>TOTAL CREDITS</b>		<b>63-65</b>	

^ Based upon SSC placement score

\* Select from BIO121, BIO122, BIO124, BIO125, BIO126, BIO127, BIO141, BIO142, BIO221, CHM101, CHM121, CHM122, CHM141, CHM142, PHY101 (1 CLASS NEEDS TO BE LAB)

\*\* Select from ENG221, ENG230, ENG231, COM122, COM123, COM125, COM121

\*\*\* Select from ENG233, ENG234, HIS121, HIS122, PHL122

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.



# SCIENCE ASSOCIATE OF SCIENCE

7106

## ASSOCIATE OF SCIENCE-GENERAL Effective Summer 2012

Course	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>FRESHMAN EXPERIENCE</b>				
ASD101	Student Success Seminar in Arts & Sciences	1		
<b>COMPUTER APPLICATIONS</b>				
ITD122	Computer Applications for Professionals (required)^	3	ITD100 or Proficiency	
<b>WRITTEN AND ORAL COMMUNICATION: 6 credit hours minimum</b>				
ENG124	College Composition (required)^	3	ENG105 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	ENG124	
COM125	Intro. To Comm. Theory^	3	IDS102 or Proficiency	
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 9 credit hours minimum</b>				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC225	Cultural Diversity (required)	3		
PSY122	Psychology of Adjustment	3		
PSY123	Human Growth & Development	3	PSY121	
PSY124	Psychology of Work	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	
<b>ARTS &amp; HUMANITIES: 9 credit hours minimum (continued)</b>				
ENG233	British Literature I	3	ENG124	
ENG234	British Literature II	3	ENG124	
HIS121	U.S. History I	3		
HIS122	U.S. History II	3		



PHL122	Ethics	3		
<b>SCIENCES &amp; MATHEMATICS: 3-4 semester credit hours in Math minimum and 8 semester credit hours in Natural and Physical Sciences minimum (1 lab course required)</b>				
	<u>Natural and Physical Sciences</u>			
BIO121	Anatomy & Physiology I (lab)	4	HS BIO 2 or BIO101 or BIO127	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO124	Human Diseases	3	BIO122 or BIO123	
BIO125	Medical Terminology	3		
BIO126	Science, Energy & the Environment (lab)	4		
BIO127	Human Biology (lab)	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4	BIO141	
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
BIO241	General Genetics	4	BIO141	
CHM101	Intro. to Chemistry	4	MTH123 or Proficiency	
CHM121	Gen.,Org., & Bio Chemistry I (lab)	4	HS CHM 2 or CHM101	
CHM122	Gen.,Org.,& Bio Chemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)	5	HS CHM 2 or CHM101	
CHM142	General Chemistry II (lab)	5	CHM141	
CHM241	Organic Chemistry I (lab)	5	CHM142	
CHM242	Organic Chemistry II (lab)	5	CHM241	
PHY101	Principles of Physics (lab)^	4	MTH123 or Proficiency and IDS102 or Proficiency	
PHY121	College Physics I w/Algebra (lab)	4	(MTH125 and MTH128)	
PHY122	College Physics II w/Algebra (lab)	4	PHY121	
	<u>Mathematics</u>			
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Precalculus	4	MTH125	
MTH128	Trigonometry for Specific Programs^	1	MTH123 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
MTH221	Concepts of Calculus	3	MTH126	
MTH223	Analytic Geometry-Calculus I	4	MTH126	
MTH224	Analytic Geometry-Calculus II	4	MTH223	
MTH225	Analytic Geometry-Calculus III	4	MTH224	
<b>ADDITIONAL ELECTIVES TO COMPLETE DEGREE*</b>		<b>18-22</b>		

## ASSOCIATE OF SCIENCE ELECTIVES\*

The Associate of Science 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 ARTS & SCIENCES COURSES	ADDITIONAL ARTS & SCIENCES COURSES
<b>Biology</b>	<b>Biotechnology</b>
BIO101 Intro. to Anatomy & Physiology (3)	BST120 Intro to Biotechnology (1)
BIO123 Principles of Human Structure & Function (5)	BST121 Basic Biotech Methods (1)
BIO222 Pharmacology (3)	BST122 Adv. Biotech Methods (3)
BIO241 General Genetics (4)	BST130 Biotech Seminar I (1)
	BST220 Molecular Biology Techniques (4)
<b>Chemistry</b>	BST221 Cell & Tissue Culture (2)
CHM243 Biochemistry I (3)	BST222 Cellular & Subcellular Septn (4)
CHM244 Biochemistry II (3)	BST225 Biotech Instrumentation (3)
	BST240 Bioinformatics (3)
<b>Communications</b>	BST250 Bioprocesses & Manufacturing (4)
COM223 Interviewing (3)	
	<b>Computational Science</b>
<b>English</b>	CST120 Computational Science Methods (3)
ENG125 Technical Editing & Layout (3)	CST121 Modeling & Simulation (3)
ENG222 Med Tech Report Writing (3)	CST221 Computational Biology (4)
ENG227 Writing for Media (3)	
ENG228 Writing for the Web (3)	
ENG229 Grant Writing (3)	
<b>Physics</b>	
PHY221 General Physics I with Calculus (5)	
PHY222 General Physics II with Calculus (5)	
<b>Social and Behavioral Sciences</b>	
GER121 Intro to Gerontology (3)	
GER122 Psychosocial Aspects of Aging (3)	
PSY125 Child Development (3)	
PSY222 Psy Aspects of Therapy (3)	
SOC124 US Social Systems (3)	
SOC222 Juvenile Delinquency (3)	



# SCIENCE ASSOCIATE OF SCIENCE

7050

## **Dual Associate of Science Degree Program with KSU Stark**

**\*Notes:** Students must take a minimum of 15 hours at Kent State University Stark Campus and 15 hours at Stark State College and maintain a minimum GPA of 2.0 overall at both Kent State University Stark Campus and Stark State College

Effective Summer 2012

Course	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>ORAL &amp; WRITTEN COMMUNICATION: 9 credit hours minimum</b>				
ENG124	College Composition (required)^	3	ENG105 or Proficiency	
ENG231	College Composition II	3	ENG124	
COM121	Effective Speaking	3		
COM122	Interpersonal Communication	3		
COM123	Small Group Communication	3	ENG124	
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 9 credit hours minimum</b>				
<u>Social Science (6 credits minimum)</u>				
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC122	Sociology & Technology	3		
SOC225	Cultural Diversity (required)	3		
<b>Choose 3 credits minimum:</b>				
PSY122	Psychology of Adjustment	3		
PSY123	Human Growth & Development	3		
PSY124	Psychology of Work	3		
PSY221	Abnormal Psychology	3	PSY121	
BUS122	Basic Economics^	3	IDS102 or Proficiency	
BUS221	Microeconomics^	3	IDS102 or Proficiency	
BUS222	Macroeconomics^	3	IDS102 or Proficiency	
PSC121	Political Science	3		
<b>ARTS &amp; HUMANITIES: 9 credit hours minimum</b>				
<u>Arts (3 credits minimum)</u>				
*ARCH 10001	Understanding Architecture	3		
*ART 12001	Art Survey	3		
*ART 22006	Art History I	3		
	(Or Choose a Core Course from KSU Fine Arts List)			
<u>Humanities (6 credits minimum)</u>				
PHL122	Ethics	3		
*ENG 21054	Intro to Shakespeare	3		
*ENG 23079	Major Modern Writers	3		
*ENG	Great Books I	3		

22071				
*HIST 11050	History of Civilization I	3		
*HIST 11051	History of Civilization II	3		
*HIST 12070	U.S. Formative Period	3		
*HIST 12071	U.S. Modern Period	3		
*MUS 22111	The Understanding of Music	3		
*PAS 23001	Black Experience I	3		
	(Or choose a Core Course from KSU Humanities List)			
<b>SCIENCES &amp; MATHEMATICS: 14 credits minimum</b>				
<u>Natural &amp; Physical Sciences (8 credits min.)</u>				
BIO121	Anatomy & Physiology I (lab)	4	BIO101 or BIO127 or HS Biology 2	
BIO122	Anatomy & Physiology II (lab)	4	BIO121 or BIO123	
BIO126	Science, Energy & the Environment (lab)	4		
BIO127	Human Biology	4		
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4	BIO141	
BIO221	Principles of Microbiology (lab)	4	BIO122 or BIO123 or BIO141	
CHM121	Gen., Organic, & Biochemistry I (lab)	4	CHM101 or HS Chemistry 2	
CHM122	Gen., Organic, & Biochemistry II (lab)	4	CHM121	
CHM141	General Chemistry I (lab)	5	CHM101 or HS Chem 2	
CHM142	General Chemistry II (lab)	5	CHM 141	
PHY101	Principles of Physics (lab)^	4	MTH 123 or Proficiency and IDS102 or Proficiency	
PHY121	College Physics w/Algebra I (lab)	4	( MTH 125 and MTH 128) or MTH126	
PHY122	College Physics w/Algebra II (lab)	4	PHY 121	
<u>Mathematics (6 credits minimum)</u>				
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Precalculus	4	MTH125	
MTH221	Concepts of Calculus	3	MTH126	
MTH223	Analytic Geometry-Calculus I	4	MTH126	
<b>ADDITIONAL ELECTIVES TO COMPLETE DEGREE</b>		<b>19</b>		
<b>TOTAL</b>				
<b>TOTAL CREDIT HOURS (60 hrs. minimum)</b>				

Students wishing to transfer to Kent State University for a baccalaureate degree completion through the College of Arts and Sciences are advised to visit <http://www.kent.edu/gps/index.cfm> for details on specific majors and their requirements.

Review Date 3/2012  
Revised Date 2/2012



# SCIENCE DIVISION

## ASSOCIATE OF APPLIED SCIENCE

1150

### BIOTECHNOLOGY

**Effective Summer 2012**

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>BIOTECHNOLOGY</b>				
BST120	Intro to Biotechnology	1		
BST121	Basic Biotechnology Methods	1		
BST122	Advanced Biotechnology Methods	3	BST121	
BST130	Biotechnology Seminar I	1		
BST221	Cell and Tissue Culture	2	BST122	
BST220	Molecular Biology Techniques	4	BST122	
BST222	Cellular and Subcellular Separations	4	BST122	
BST225	Biotechnology Instrumentation	3	BST122	
BST240	Bioinformatics	3		
BST250	Bioprocess and Manufacturing	4	BST122	
BST230	Biotechnology Seminar II	1	BST130	
BST271-274	Biotech Independent Study	3-4	BST220 Co-Req BST230	
<b>TOTAL</b>		<b>30-31</b>		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>ENGLISH</b>				
ENG124	College Composition^	3	ENG105 or Proficiency	
<b>MATHEMATICS</b>				
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH222	Statistics^	3	MTH123 or Proficiency	
<b>BIOLOGY</b>				
BIO141 (required)	General Biology I	4		
Two of the Biology courses below*				
BIO142	General Biology II	4	BIO141	
BIO221	Principles of Microbiology	4	BIO122 or BIO123 or BIO141	
BIO241	General Genetics	4	BIO141	
<b>CHEMISTRY</b>				
CHM101	Intro. to Chemistry**	4	MTH123	
CHM141	General Chemistry I	5	CHM101 or H.S. Chemistry 2	
CHM142	General Chemistry II	5	CHM141	
<b>ARTS, HUMANITIES</b>				
PHL122	Ethics	3		
<b>TOTAL</b>		<b>35-39</b>		
<b>TOTAL CREDIT HOURS</b>		<b>65-70</b>		

^ Based upon SSC placement scores

\*Biology electives

\*\*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.

Reviewed 3/2012

Revised 2/2012

Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

**BIOTECHNOLOGY**  
**Effective Summer 2012**

<u>First Semester</u>		Credit Hours	Pre- and Co-requisites
BIO141	General Biology I	4	
CHM141	General Chemistry I**	5	CHM101 or H.S. Chemistry 2
ENG124	College Composition^	3	ENG105 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
BST120	Introduction to Biotechnology	1	
BST121	Basic Biotechnology Methods	<u>1</u>	
		18	
<u>Second Semester</u>			
	Biology Elective*	4	
CHM142	General Chemistry II	5	CHM141
PHL122	Ethics	3	
BST122	Advanced Biotechnology Methods	3	BST121
BST130	Biotechnology Seminar I	<u>1</u>	
		16	
<u>Summer</u>			
	Biology Elective*	4	
BST221	Cell and Tissue Culture	<u>2</u>	BST122
		6	
<u>Third Semester</u>			
MTH222	Statistics^	3	MTH123 or Proficiency
BST220	Molecular Biology Techniques	4	BST122
BST222	Cellular and Subcellular Separations	4	BST122
BST225	Biotechnology Instrumentation	<u>3</u>	BST122
		14	
<u>Fourth Semester</u>			
BST240	Bioinformatics	3	
BST250	Bioprocesses and Manufacturing	4	BST122
BST230	Biotechnology Seminar II	1	BST130
BST271-274	Biotech Individual Study	<u>3-4</u>	BST220 Co-req BST230
		11-12	
<b>TOTAL CREDITS</b>		<b>65-70</b>	

^ Based upon SSC placement scores

\*Biology electives BIO142, BIO221, BIO241

\*\* The upper limit of the range represents credit hour total for those not meeting the CHM 101 requirement in high school. 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.



# SCIENCE DIVISION ASSOCIATE OF SCIENCE

1251

## COMPUTATIONAL SCIENCE-BIOLOGY

Effective Summer 2012

Course	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
<b>COMPUTATIONAL SCIENCES 14 credit hours minimum</b>				
CST120	Computational Science Methods	3	Co-MTH125	
CST121	Modeling and Simulation	3		
CST221	Computational Biology	4	CST121	
CST274	Independent Study – Computational Science	4	CST221	
<b>COMPUTER APPLICATIONS 12 credit hours minimum</b>				
ITD122	Computer Applications for Professionals^	3	ITD100 or Proficiency	
ECA127	Programming Logic and Problem Solving^	3	MTH101 or Proficiency and IDS101 or Proficiency	
ECA150	Informatics^	3	(MTH101 or Proficiency) and (IDS102 or Proficiency ) and ECA253	
ECA253	Data Modeling & Database Dsgn^	4	MTH101 or Proficiency and IDS101 or Proficiency	
<b>NATURAL AND PHYSICAL SCIENCES 8 credit hours minimum (1 lab course required)</b>				
BIO141	General Biology I (lab)	4		
BIO142	General Biology II (lab)	4	BIO141	
<b>MATHEMATICS: 7 credit hours minimum</b>				
MTH125	College Algebra^	4	MTH123 or Proficiency	
MTH126	Pre-Calculus	4	MTH125 or Proficiency	
MTH222	Statistics (required)^	3	MTH123 or Proficiency	
MTH223	Analytical Geo & Calc I (required)	4	MTH 126 or Proficiency	
<b>WRITTEN &amp; ORAL COMMUNICATION: 9 credit hours</b>				
ENG124	College Composition ^	3	ENG105 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
COM121	Effective Speaking	3		
<b>SOCIAL &amp; BEHAVIORAL SCIENCES: 9 credit hours minimum***</b>				
PSC121	Political Science	3		
PSY121	General Psychology^	3	IDS102 or Proficiency	
SOC121	Sociology^	3	IDS102 or Proficiency	
SOC122	Society and Technology	3		
SOC225	Cultural Diversity (required)	3		
BUS122	Basic Economics^	3	IDS102 or Proficiency	
<b>ARTS &amp; HUMANITIES: 6 credit hours minimum**</b>				
ENG233	British Literature I	3	ENG124	
ENG234	British Literature II	3	ENG124	
HIS121	U.S. History I	3		
HIS122	U.S. History II	3		
PHL122	Ethics (required)	3		
		65-73*		

^Based on SSC placement scores

\* The upper limit of the range represents credit hour total for those not meeting the Mathematics requirement in high school

Reviewed 3/2012

Revised 2/2012



# STUDENT ADVISING NOTES

1251

## Academic Advising:

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, 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.

## **COMPUTATIONAL SCIENCE – BIOLOGY**

**Effective Summer 2012**

<u>First Semester</u>		<u>Credit Hours</u>	<u>Pre- and Co-requisites</u>
BIO141	General Biology I	4	
CST120	Computational Science Methods	3	Co-MTH125
ITD122	Computer Applications for Prof	3	ITD100 or Proficiency
ENG124	College Composition^	3	ENG105 or Proficiency
MTH125	College Algebra^	4	MTH123 or Proficiency
		<u>17</u>	
<u>Second Semester</u>			
BIO142	General Biology II	4	BIO141
CST121	Modeling and Simulation	3	
ECA127	Programming Logic & Problem Solving^	3	IDS101 or Proficiency and MTH101 or Proficiency
ENG221	Technical Report Writing	3	ENG124
MTH126	Pre-Calculus	4	MTH125
COM121	Effective Speaking	<u>3</u>	
		20	
<u>Third Semester</u>			
CST221	Computational Biology	4	CST121
ECA253	Data Modeling ^	3	IDS101 or Proficiency And MTH101 or Proficiency
MTH223	Analytical Geo & Calc I	4	MTH126
	Social and Behavioral Science Req***	3	
PHL122	Ethics	<u>3</u>	
		17	
<u>Fourth Semester</u>			
CST274	Independent Study – Comp Science	4	CST221
ECA150	Informatics^	3	(IDS102 or Proficiency) And ECA253 (MTH101 or Proficiency)
MTH222	Statistics^	3	MTH123 or Proficiency
	Arts and Humanities Req**	3	
	Two Social and Behavioral Science Req***	<u>6</u>	
		19	
<b>TOTAL CREDITS</b>		<b>65-73*</b>	

^ Based upon SSC placement test

\* The upper limit of the range represents credit hour total for those not meeting the Mathematics requirement in high school

\*\* Select from HIS121, HIS122, ENG233, ENG234

\*\*\*Select from PSY121, PSC121, SOC121, SOC122, SOC225, BUS122



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## Credit Course Catalog Listing

### Teaching and Learning

#### Arts, Humanities & Rdg

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**IDS202 GOAL SET/MANAGING SUCCES**

Credit Hours: 1 Contact Hours: 1

The objectives of this team-taught course are to understand the importance of setting goals to effective leadership and to practice various techniques for goal-setting. Experiential learning exercises instruct participants in both individual and group goal-setting. The course focuses on aspects of confronting failure and managing the success of any group endeavor.

**Pre-reqs:**

IDS110

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**IDS204 LEADERSHIP VISION**

Credit Hours: 1 Contact Hours: 1

This team-taught course emphasizes the critical leadership role of vision. Experientially-based methods train participants to integrate knowledge and skills in the process of creating both individual and organizational vision. This model involves participants in the dynamic, creative act of visioning.

**Pre-reqs:**

IDS110

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**IDS205 SITUATIONAL LEADERSHIP**

Credit Hours: 1 Contact Hours: 1

This team-taught course provides tools for adapting leadership behavior to the dynamics of situations. Applications of contingency skills and styles are considered. This experiential course exposes the participants to the challenges facing leaders and addresses the skills needed to succeed in a variety of situations.

**Pre-reqs:**

IDS110

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**IDS206 LDSHP DYNAMICS:IND DEV INFLUEN**

Credit Hours: 3 Contact Hours: 3

This course provides opportunities for the student's development of leadership abilities through personal and interpersonal inquiry and practice. Students will identify skills central to group influence and analyze, interpret and apply those behaviors, including active listening, effective processing, problem solving, negotiating and empowering. Collaborative learning, experiential techniques and workshop formats are main features of this course.

**Pre-reqs:**



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## Teaching and Learning

### Arts, Humanities & Rdg

#### **IDS206 LDSHP DYNAMICS:IND DEV INFLUEN**

Credit Hours: 3 Contact Hours: 3

This course provides opportunities for the student's development of leadership abilities through personal and interpersonal inquiry and practice. Students will identify skills central to group influence and analyze, interpret and apply those behaviors, including active listening, effective processing, problem solving, negotiating and empowering. Collaborative learning, experiential techniques and workshop formats are main features of this course.

#### **Pre-reqs:**

ENG124

### English

#### **IDS200 LEADERSHIP SEMINAR**

Credit Hours: 3 Contact Hours: 3

This is a highly participative, experiential course that explores trust and team building, goal setting, change management, conflict resolution and transformational leadership. This seminar encourages self-exploration and growth as a major process of influence in leadership.

#### **Pre-reqs:**

### General Studies

#### **IDS201 TRUST AND TEAM BUILDING**

Credit Hours: 1 Contact Hours: 1

This team-taught course promotes understanding of the importance of trust and team-building to effective leadership, and provides experience with techniques used in both. This highly participative experience involves lectures, analysis of films and works of literature and group discussion. Its design increases awareness of self and others while teaching how to develop trust and build teams.

#### **Pre-reqs:**

IDS110

#### **IDS203 CHANGE,CONFLICT AND TRANSF**

Credit Hours: 1 Contact Hours: 1

This team-taught course provides an understanding of the skills necessary for promoting change management. Participation deals with the inevitability of change in dynamic individuals and organizations and focuses on the transformation processes used to evolve and improve. Conflict resolution is highlighted as a key process.

#### **Pre-reqs:**



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## Teaching and Learning

### General Studies

#### **IDS203 CHANGE,CONFLICT AND TRANSF**

Credit Hours: 1 Contact Hours: 1

This team-taught course provides an understanding of the skills necessary for promoting change management. Participation deals with the inevitability of change in dynamic individuals and organizations and focuses on the transformation processes used to evolve and improve. Conflict resolution is highlighted as a key process.

#### **Pre-reqs:**

IDS110

## Liberal Arts

### Arts, Humanities & Rdg

#### **COM121 EFFECTIVE SPEAKING**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **COM121A EFFECTIVE SPEAKING A**

Credit Hours: 1.5 Contact Hours: 1.5

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.

#### **Pre-reqs:**

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#### **COM121B EFFECTIVE SPEAKING B**

Credit Hours: 1.5 Contact Hours: 1.5

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.

#### **Pre-reqs:**



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## Liberal Arts

### Arts, Humanities & Rdg

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#### COM121B EFFECTIVE SPEAKING B

Credit Hours: 1.5 Contact Hours: 1.5

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.

#### Pre-reqs:

COM121A

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#### COM122 INTERPERSONAL COMMUNICATION

Credit Hours: 3 Contact Hours: 3

This course examines the theory and application of interpersonal communication concepts and principles, emphasizing application toward becoming a more competent interpersonal communicator. Areas of study include perception, culture, listening, nonverbal communication, relationships, and conflict. This course is Ohio TAG approved. OCM002 effective Summer 2008. Ohio Transfer Module Approved effective Autumn 2008.

#### Pre-reqs:

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#### COM123 SMALL GROUP COMMUNICATION

Credit Hours: 3 Contact Hours: 3

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:

ENG124

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#### COM125 INTRO TO COMMUNICATION THEORY

Credit Hours: 3 Contact Hours: 3

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:

IDS102

Or Test & Score: ACT Composite - 22



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## Liberal Arts

### Arts, Humanities & Rdg

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#### COM125 INTRO TO COMMUNICATION THEORY

Credit Hours: 3 Contact Hours: 3

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 - 19
- Or Test & Score: Compass Reading - 080
- Or IDS102
- Or IDS102
- Or IDS102
- Or IDS102

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#### COM126 INTRO TO MASS COMM

Credit Hours: 3 Contact Hours: 3

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.

##### Pre-reqs:

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#### COM127 HEALTH COMMUNICATION

Credit Hours: 3 Contact Hours: 3

This course is designed to provide an overview of Health Communication through an examination of theoretical frameworks, communication strategies, and technologies that promote the health of individuals, communities, and populations. These various aspects of Health Communication will be analyzed through the lens of various aspects of health care (patient perspective, caregiver perspective, health images in media, etc.) Students will examine these aspects through various subdisciplines of communication (interpersonal, groups/organizations, public relations, media, etc.).

##### Pre-reqs:

- IDS102
- Or Test & Score: ACT Reading - 19
- Or Test & Score: Compass Reading - 080



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## Liberal Arts

### Arts, Humanities & Rdg

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#### COM223 INTERVIEWING I

Credit Hours: 3 Contact Hours: 3

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:

COM122

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#### COM224 TECHNCL COMMUNICATNS INTERSHIP

Credit Hours: 3 Contact Hours: 3

Students will work with private companies and public institutions during a specified period of time with a member of the English and Communications 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 institution and the student's advisor that obligations and objectives have been met. Can only be completed in student's final semester at Stark State College.

##### Pre-reqs:

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#### COM225 SEX, GENDER, AND CULTURE

Credit Hours: 3 Contact Hours: 3

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:

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#### COM227 INTERCULTURAL COMMUNICATION

Credit Hours: 3 Contact Hours: 3

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:

COM122



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## Liberal Arts

### Arts, Humanities & Rdg

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#### COM228 NONVERBAL COMMUNICATION

Credit Hours: 3 Contact Hours: 3

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:

COM122

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#### COM229 PERSUASION

Credit Hours: 3 Contact Hours: 3

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:

IDS102

Or Test & Score: Compass Reading - 080

Or Test & Score: ACT Composite - 22

Or Test & Score: ACT Reading - 19

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#### COM230 ARGUMENTATION

Credit Hours: 3 Contact Hours: 3

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:

COM121

And IDS102

Or Test & Score: ACT Composite - 22

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080





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**Liberal Arts**

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**Arts, Humanities & Rdg**

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**COM6 ORGANIZATIONAL COMMUNICATION**

Credit Hours: 3 Contact Hours: 3

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:**

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**HIS121 US HISTORY I -TO 1877**

Credit Hours: 3 Contact Hours: 3

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 religious 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:**

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**HIS122 US HISTORY II FROM 1877**

Credit Hours: 3 Contact Hours: 3

This course will cover the major trends and ideas in American history from the end of Reconstruction to 1974. 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 and the youth movement. TAG approved OHS010 effective Spring 2012. TMAH approved Spring 2012.

**Pre-reqs:**

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**IDS101 TECHNICAL COMPREHENSION**

Credit Hours: 4 Contact Hours: 4

Technical Comprehension helps students develop and apply mental strategies involving reading, vocabulary, and study skills. Students identify their individual learning styles and utilize techniques to enhance their success with college level courses, such as math, health, business, social science, and technology. This course includes a computerized reading program to practice and reinforce comprehension skills. Successful completion of this course plus a passing score on a post-test satisfies the college reading requirement.

**Pre-reqs:**



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**Liberal Arts**

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**Arts, Humanities & Rdg**

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**IDS102 CRITICAL ANALYSIS**

Credit Hours: 4 Contact Hours: 4

Critical Analysis is an applied course emphasizing critical reading and thinking skills. It teaches strategies to enhance the analysis, understanding, synthesis, and application of information from printed material. This course includes vocabulary development and a computerized reading program. Cognitive strategies are specifically applied to a range of academic themes, such as, math, health, business, social science, or technology. Placement is based on score achieved on entrance placement test or satisfactory completion of IDS101, Technical Comprehension, without passing the reading post-test. Successful completion of this course satisfies the college reading requirement.

**Pre-reqs:**

IDS101

Or CAL101

Or Test & Score: ACT Reading - 14

Or Test & Score: ACT Composite - 22

Or Test & Score: Compass Reading - 066

---

**IDS112 COLLEGE SUCCESS SKILLS MOD I**

Credit Hours: 1 Contact Hours: 1

Designed to aid students in gaining skills needed for constructive and efficient learning both in college and other life settings. Topics include time management, study and test-taking techniques, communication and relationship-building skills, library use, and a variety of techniques for personal use. Module I: Planning, memory, and thinking.

**Pre-reqs:**

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**IDS113 COLLEGE SUCCESS SKILLS MOD II**

Credit Hours: 1 Contact Hours: 1

Designed to aid students in gaining skills needed for constructive and efficient learning both in college and other life settings. Topics include time management, study and test-taking techniques, communication and relationship-building skills, library use, and a variety of techniques for personal use. Module II: Reading, note taking, and test.

**Pre-reqs:**



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## Liberal Arts

### Arts, Humanities & Rdg

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#### **IDS114 COLLEGE SUCCESS SKILLS MOD III**

Credit Hours: 1 Contact Hours: 1

Designed to aid students in gaining skills needed for constructive and efficient learning both in college and other life settings. Topics include time management, study and test-taking techniques, communication and relationship-building skills, library use, and a variety of techniques for personal use. Module III: Communicating, Resources, Health and Diversity.

**Pre-reqs:**

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#### **IDS115 COLLEGE SUCCESS SKILLS**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **PHL122 ETHICS**

Credit Hours: 3 Contact Hours: 3

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:**

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### Social Sciences

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#### **GER121 INTRO TO GERONTOLOGY**

Credit Hours: 3 Contact Hours: 3

Provides an understanding of the normal and highly variable process of aging and human development, gerontological skills, and realistic attitudes regarding aging. Presents a basic understanding of the historical, cultural, biological, psychological, and social contexts of aging. Addresses changes that occur within the aging individual, how these changes influence interactions with social and physical environments, and how the older person is affected by these interactions. Includes a discussion of age related changes in anatomy and physiology, socialization, personality, intelligence, sensation, social support, economics/retirement, death and dying, and crime and fraud.

**Pre-reqs:**



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**Liberal Arts**

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**Social Sciences**

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**GER122 PSYCHOSOCIAL ASPECT OF AGING**

Credit Hours: 3 Contact Hours: 3

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:**

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**PSC121 POLITICAL SCIENCE**

Credit Hours: 3 Contact Hours: 3

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:**

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**PSC121A POLITICAL SCIENCE A**

Credit Hours: 1.5 Contact Hours: 1.5

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.

**Pre-reqs:**

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**PSC121B POLITICAL SCIENCE B**

Credit Hours: 1.5 Contact Hours: 1.5

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.

**Pre-reqs:**

PSC121A



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**Liberal Arts**

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**Social Sciences**

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**PSY121 GENERAL PSYCHOLOGY**

Credit Hours: 3 Contact Hours: 3

Surveys the scientific study of behavior, addressing a wide range of traditional topics, including introduction and research; perception; 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. TAG approved course- OSS015 effective summer 2007. TMSBS approved Spring 2012.

**Pre-reqs:**

IDS102

Or Test & Score: ACT Composite - 22

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080

Or IDS102

Or IDS102

Or IDS102

Or SOC121

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**PSY121A GENERAL PSYCHOLOGY A**

Credit Hours: 1.5 Contact Hours: 1.5

Surveys the scientific study of behavior, addressing a wide range of traditional topics, including learning, memory and cognition, sensory-perceptual processes, physiology and behavior, motivation and emotion, intelligence, personality and social interaction. Emphasizes classical and current theory and research, with selected attention to practical application.

**Pre-reqs:**

IDS102

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080

Or Test & Score: ACT Math - 22

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**PSY121B GENERAL PSYCHOLOGY B**

Credit Hours: 1.5 Contact Hours: 1.5

Surveys the scientific study of behavior, addressing a wide range of traditional topics, including learning, memory and cognition, sensory-perceptual processes, physiology and behavior, motivation and emotion, intelligence, personality and social interaction. Emphasizes classical and current theory and research, with selected attention to practical application.

**Pre-reqs:**

IDS102



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**Liberal Arts****Social Sciences**

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**PSY121B GENERAL PSYCHOLOGY B**

Credit Hours: 1.5 Contact Hours: 1.5

Surveys the scientific study of behavior, addressing a wide range of traditional topics, including learning, memory and cognition, sensory-perceptual processes, physiology and behavior, motivation and emotion, intelligence, personality and social interaction. Emphasizes classical and current theory and research, with selected attention to practical application.

**Pre-reqs:**

Or Test & Score: ACT Composite - 22

And PSY121A

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080

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**PSY122 PSYCHOLOGY OF ADJUSTMENT**

Credit Hours: 3 Contact Hours: 3

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:**

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**PSY123 HUMAN GROWTH AND DEVELOP**

Credit Hours: 3 Contact Hours: 3

A study of normal physical, mental, emotional and social development and changes in the development of the individual from prenatal to old age. TMSBS approved Spring 2012. . TAG approved OSS048 effective Spring 2011.

**Pre-reqs:**

PSY121



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**Liberal Arts**

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**Social Sciences**

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**PSY124 INDUSTRIAL/ORGANL PSYCH**

Credit Hours: 3 Contact Hours: 3

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:**

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**PSY125 CHILD DEVELOPMENT**

Credit Hours: 3 Contact Hours: 3

A detailed examination of growth and maturation from infant/toddler through the preschool years up to the age of eight, with some treatment of selected topics relating to later stages. Physical, cognitive, affective, social, moral/ethical, and personality development are studied. Ten field observation hours are required.

**Pre-reqs:**

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**PSY220 SOCIAL PSYCHOLOGY**

Credit Hours: 3 Contact Hours: 3

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

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**PSY221 ABNORMAL PSYCHOLOGY**

Credit Hours: 3 Contact Hours: 3

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



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**Liberal Arts****Social Sciences**

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**PSY222 PSY ASPECT OF THERAPY**

Credit Hours: 3 Contact Hours: 3

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:**

IDS102

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080

Or IDS102

Or IDS102

Or IDS102

Or IDS102

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**PSY229 PSYCHOLOGICAL METHODS**

Credit Hours: 3 Contact Hours: 3

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 PSY222

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**SOC121 SOCIOLOGY**

Credit Hours: 3 Contact Hours: 3

Introduces the general theories of the field, stressing the impact of groups and institutions on social behavior. Also examines factors that contribute to cultural change, social problems/issues and social interaction. TAG approved course- OSS021 effective Spring 2007. TMSBS approved Spring 2012.

**Pre-reqs:**

IDS102

Or Test & Score: ACT Composite - 22

Or Test & Score: ACT Reading - 19





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**Liberal Arts**

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**Social Sciences**

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**SOC121 SOCIOLOGY**

Credit Hours: 3 Contact Hours: 3

Introduces the general theories of the field, stressing the impact of groups and institutions on social behavior. Also examines factors that contribute to cultural change, social problems/issues and social interaction. TAG approved course- OSS021 effective Spring 2007. TMSBS approved Spring 2012.

**Pre-reqs:**

- Or Test & Score: Compass Reading - 080
- Or IDS102
- Or IDS102
- Or IDS102
- Or PSY121

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**SOC122 SOCIETY AND TECHNOLOGY**

Credit Hours: 3 Contact Hours: 3

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:**

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**SOC123 DYNAMICS OF THE FAMILY**

Credit Hours: 3 Contact Hours: 3

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:**



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**Liberal Arts**

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**SOC124 US SOCIAL SYSTEMS****Credit Hours: 3 Contact Hours: 3**

Explores the nature and types of organizations and how they are expressed in social systems in American life. Topics discussed include organizational structure, power and authority, communications, inter-organizational relationships and bureaucracy.

**Pre-reqs:**

SOC121

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**SOC126 PSYCHOSOCIAL ASPECT AGING****Credit Hours: 3 Contact Hours: 3**

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 in inequality of gender, race and economics that are compounded in old age. Topics include speed of behavior, mental functioning, mental disorders, socialization, social support, economics and retirement, leisure activities, living arrangement and death and dying.

**Pre-reqs:**

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**SOC221 SOCIAL PROBLEMS****Credit Hours: 3 Contact Hours: 3**

An examination of significant contemporary problems in American society and their impact on traditional and emerging sociological institutions/systems. Special consideration is given to these topics as they apply to social service agencies. TAG approved course--OSS025 effective Spring 2007.

**Pre-reqs:**

SOC121

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**SOC222 JUVENILE DELINQUENCY****Credit Hours: 3 Contact Hours: 3**

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



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## Liberal Arts

### Social Sciences

#### **SOC225 CULTURAL DIVERSITY**

Credit Hours: 3 Contact Hours: 3

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:**

### English

#### **ENG100 COLLEGE WRITING I**

Credit Hours: 5 Contact Hours: 5

This introductory writing course emphasizes narrative writing, including generating ideas, flow, and logic. Foundational grammar based on sentence construction is stressed.

#### **Pre-reqs:**

#### **ENG103 COLLEGE WRITING II**

Credit Hours: 5 Contact Hours: 5

This writing course focuses on paragraph development and introduces short essays emphasizing the writing process of drafting, revising, and editing. Narrative writing is stressed.

#### **Pre-reqs:**

ENG100

Or CAL102

Or Test & Score: ACT English - 13

Or Test & Score: Compass English - 020



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## Liberal Arts

### English

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#### **ENG105 COLLEGE WRITING III**

Credit Hours: 3 Contact Hours: 3

This course emphasizes the essay writing process, focusing on development of ideas, awareness of audience, and writing for a purpose. Course requirements include revision based on content, as well as editing based on standard English conventions.

##### **Pre-reqs:**

ENG103

Or CAL105

Or Test & Score: ACT English - 16

Or Test & Score: Compass English - 050

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#### **ENG124 COLLEGE COMPOSITION**

Credit Hours: 3 Contact Hours: 3

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:**

ENG101

Or ENG105

Or Test & Score: ACT English - 18

Or Test & Score: Compass English - 070

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#### **ENG125 TECHNICAL EDITING AND LAYOUT**

Credit Hours: 3 Contact Hours: 3

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

And ENG231



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## Liberal Arts

### English

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#### **ENG126 TECHNICAL GRAMMAR AND STYLE**

Credit Hours: 3 Contact Hours: 3

Technical Grammar and Style provides an intense review of modern English grammar, style, and punctuation, and examines how these subjects pertain to current technical writing. Sentence elements, patterns, forms, voice, and errors are reviewed. The course addresses style and theoretical issues in technical communication.

##### **Pre-reqs:**

ENG124

And ENG231

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#### **ENG221 TECHNICAL REPORT WRITING**

Credit Hours: 3 Contact Hours: 3

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

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#### **ENG222 HEALTH INFORMATION WRITING**

Credit Hours: 3 Contact Hours: 3

Health Information Management Technology students develop skills in various kinds of writing to meet the needs of the global workplace, such as letters, memos, emails, instructions, reports, abstracts, minutes, agendas, summaries and proposals, in addition to developing a resume with a letter of application. Students will learn research techniques based on medical databases related to health information as well as other electronic sources in this technology.

##### **Pre-reqs:**

ENG124

And HIT223

Can be Taken Concurrently

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#### **ENG227 WRITING FOR MEDIA**

Credit Hours: 3 Contact Hours: 3

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:**



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## Liberal Arts

### English

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#### **ENG227 WRITING FOR MEDIA**

Credit Hours: 3 Contact Hours: 3

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

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#### **ENG228 WRITING FOR THE WEB**

Credit Hours: 3 Contact Hours: 3

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

And ENG231

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#### **ENG229 GRANT WRITING**

Credit Hours: 3 Contact Hours: 3

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

And ENG231

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#### **ENG230 BUSINESS COMMUNICATION**

Credit Hours: 3 Contact Hours: 3

This course teaches application of various forms of business communication, such as letters, memos, instructions, abstracts/ summaries, and a simulated business presentation with emphasis on research, oral reports, and visuals. TMEC Approved effective Autumn 2008. OTM approved for TME002 effective Fall 2011. TAG approved Spring 2012 OBU005.

#### **Pre-reqs:**



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## Liberal Arts

### English

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#### **ENG230 BUSINESS COMMUNICATION**

Credit Hours: 3 Contact Hours: 3

This course teaches application of various forms of business communication, such as letters, memos, instructions, abstracts/ summaries, and a simulated business presentation with emphasis on research, oral reports, and visuals. TMEC Approved effective Autumn 2008. OTM approved for TME002 effective Fall 2011. TAG approved Spring 2012 OBU005.

#### **Pre-reqs:**

ENG124

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#### **ENG231 COLLEGE COMPOSITION II**

Credit Hours: 3 Contact Hours: 3

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

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#### **ENG232 SCRIPTWRITING**

Credit Hours: 3 Contact Hours: 3

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:**

ENG227

And ENG124

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#### **ENG233 BRITISH LITERATURE:MED TO 1785**

Credit Hours: 3 Contact Hours: 3

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



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### English

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#### **ENG234 BRITISH LIT:1785 TO PRESENT**

Credit Hours: 3 Contact Hours: 3

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

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#### **ENG235 INTRO TO SHAKESPEARE**

Credit Hours: 3 Contact Hours: 3

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.

#### **Pre-reqs:**

ENG124

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#### **ENG236 AMERICAN LIT:COLONIAL to 1865**

Credit Hours: 3 Contact Hours: 3

This course covers American Literature from the 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

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#### **ENG237 AMERICAN LIT:1865 TO PRESENT**

Credit Hours: 3 Contact Hours: 3

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.

#### **Pre-reqs:**

ENG124





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## Liberal Arts

### English

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#### **ENG238 INTRO TO CREATIVE WRITING**

Credit Hours: 3 Contact Hours: 3

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

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#### **ENG239 FILM APPRECIATION**

Credit Hours: 3 Contact Hours: 3

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

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#### **ENG240 WOMEN'S LITERATURE**

Credit Hours: 3 Contact Hours: 3

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

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#### **ENG241 MAJOR MODERN WRITERS**

Credit Hours: 3 Contact Hours: 3

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.

#### **Pre-reqs:**

ENG124



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#### **ENG242 FILM APPRECIATION**

Credit Hours: 3 Contact Hours: 3

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

#### **ENG250 TECHNCL COMMUNICATNS INTERSHIP**

Credit Hours: 3 Contact Hours: 3

This course emphasizes the essay writing process, focusing on development of ideas, awareness of audience, and writing for a purpose. Course requirements include revision based on content, as well as editing on standard English conventions.

#### **Pre-reqs:**

### General Studies

#### **ASD101 STUDENT SUCCESS ARTS SCI SEM**

Credit Hours: 1 Contact Hours: 2

The Student Success Skills course is designed to aid students in gaining skills necessary for success in both academic and other life settings. Topics include learning styles, critical thinking, time management, study and test-taking techniques, communication and relationship-building skills, college resource exploration, and a variety of personal development strategies. The course also encourages the development of social skills and fosters a connection with classmates at SSCT and the division. Upon completion of this course, students should be able to incorporate into their program or certificate the tools and skills necessary to be academically and professionally

#### **Pre-reqs:**

#### **GSD201 GEN INDEPENDENT STUDY**

Credit Hours: 1 Contact Hours: 10

An independent study may be arranged through the General Studies/Public Service Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for General Studies/Public Service Technologies will determine course content, meeting schedules and credit hours.

#### **Pre-reqs:**



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## Liberal Arts

### General Studies

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#### **GSD202      GEN INDEPENDENT STUDY**

Credit Hours: 2   Contact Hours: 20

An independent study may be arranged through the General Studies/Public Service Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for General Studies/Public Service Technologies will determine course content, meeting schedules and credit hours.

**Pre-reqs:**

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#### **GSD203      GEN INDEPENDENT STUDY**

Credit Hours: 3   Contact Hours: 30

An independent study may be arranged through the General Studies/Public Service Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for General Studies/Public Service Technologies will determine course content, meeting schedules and credit hours.

**Pre-reqs:**

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#### **GSD204      GEN INDEPENDENT STUDY**

Credit Hours: 4   Contact Hours: 40

An independent study may be arranged through the General Studies/Public Service Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for General Studies/Public Service Technologies will determine course content, meeting schedules and credit hours.

**Pre-reqs:**

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#### **IDS110      LEADERSHIP CONCEPTS**

Credit Hours: 3   Contact Hours: 3

This is the prerequisite course for any and all other Leadership Experience modules. In this course participants learn the basic skills used to effectively interact with others and exert leadership in these interactions. Practical skills include active listening, effective processing, problem solving, negotiating and empowering. This is a team taught course emphasizing experiential techniques.

**Pre-reqs:**

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### Mathematics



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## Liberal Arts

### Mathematics

#### **ARL127 INDUSTRIAL MATHEMATICS**

Credit Hours: 3 Contact Hours: 4

This course reviews the fundamentals of math used in the machining industry. Practical application will be made using blueprints, precision measuring tools, and practical formulas used in machine trades. Powers and roots will be explained in conjunction with volumes and areas of geometric figures and how (¿) figures into many of these formulas. Percentage applications will also be explained. Introductory Algebra beginning with symbolisms, sign numbers, algebraic operations of addition, subtraction, multiplication, division, powers and roots will follow. Equations and rearranging practical formulas will complete this level.

**Pre-reqs:**

#### **ARL221 IND LAYOUT AND TRIGONOMETRY**

Credit Hours: 3 Contact Hours: 4

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:**

### Education

#### **ASL222 AMERICAN SIGN LANG PRAC/SEM**

Credit Hours: 3 Contact Hours: 3

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:**

ASL124

## Business/ Entrepreneurial

### Accounting/Finance



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**Business/ Entrepreneurial****Accounting/Finance**

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**ACC121 PRINC OF ACCOUNTING**

Credit Hours: 4 Contact Hours: 4

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:**

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**ACC124 INDIVIDUAL TAXATION**

Credit Hours: 4 Contact Hours: 4

This is the first course of a two-course sequence in federal income taxation. Principles of individual taxation, taxation systems, simple tax scenario analysis, and computations of gains and losses are discussed, as well as their classifications and placement in the tax formula. On completion, students should be able to analyze simple tax transactions and determine their impact on an individual's tax liability.

**Pre-reqs:**

BUS123

Or BUS124

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**ACC127 QUANTITATIVE BUSINESS STATISTIC**

Credit Hours: 4 Contact Hours: 4

The course begins with a brief review of time value of money applications. The remainder of the course focuses on the study of statistics emphasizing statistical literacy and development of statistical thinking. Concepts covered include organizing and summarizing data using descriptive and graphical methods, using probability to perform statistical inferences, understanding sampling distributions and using discrete and continuous random variables to calculate probabilities. Students will also estimate population parameters, point estimates and confidence intervals; formulate research hypothesis; and apply simple and multiple regression models. Emphasis is placed on using technology for

**Pre-reqs:**

BUS123

Or BUS124

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**ACC130 BUSINESS LAW AND ETHICS**

Credit Hours: 3 Contact Hours: 3

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:**



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**Business/ Entrepreneurial****Accounting/Finance**

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**ACC130 BUSINESS LAW AND ETHICS**

Credit Hours: 3 Contact Hours: 3

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:**

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**ACC132 FINANCIAL ACCOUNTING**

Credit Hours: 4 Contact Hours: 4

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- OBU001 effective Fall 2005.

**Pre-reqs:**

BUS123

Or BUS124

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**ACC133 MANAGERIAL ACCOUNTING**

Credit Hours: 4 Contact Hours: 4

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- OBU002 effective Fall 2005.

**Pre-reqs:**

ACC132

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**ACC134 INTERNATIONAL LAW**

Credit Hours: 3 Contact Hours: 3

This course explores the law and international transactions.. Areas covered include: sovereignty, treaties, agreements, antitrust practices, property rights and international arbitration. Upon completion of this course, students should operations understand the sources of international law and its impact on businesses with international transactions.

**Pre-reqs:**

ACC130



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## Business/ Entrepreneurial

### Accounting/Finance

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#### **ACC221 INTERMEDIATE ACCT I**

Credit Hours: 4 Contact Hours: 4

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

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#### **ACC222 INTERMEDIATE ACCT II**

Credit Hours: 4 Contact Hours: 4

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

#### **Pre-reqs:**

ACC221

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#### **ACC223 COST ACCOUNTING**

Credit Hours: 4 Contact Hours: 4

This course places an emphasis on manufacturing and service organizations. Course coverage includes job-order costing, process costing, activity-based costing/activity-based management, standard costing and analysis of cost variances. Upon completion of this course, students should be able to apply the fundamental concepts of cost accounting to a variety of business decisions.

#### **Pre-reqs:**

ACC127

And ACC133

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#### **ACC225 AUDITING**

Credit Hours: 4 Contact Hours: 4

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



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## Business/ Entrepreneurial

### Accounting/Finance

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#### **ACC226      ADVANCED ACCOUNTING**

Credit Hours: 4    Contact Hours: 4

The study of consolidated financial statements is the primary concentration of this course. Fundamentals of fair value and equity accounting methods are reviewed, and students are exposed to the processes for consolidation of different entities and the appropriate financial statement considerations and disclosure requirements. Topics include valuation of acquired net assets, recognition of goodwill, the allocation of the purchase price to various elements of the balance sheet, and the elimination of intercorporate transactions in the preparation of consolidated statements. Upon completion, students should be able to discuss the permissible methods of consolidation and indicate the ability to

#### **Pre-reqs:**

ACC222

Can be Taken Concurrently

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#### **ACC227      PAYROLL ACCOUNTING**

Credit Hours: 3    Contact Hours: 3

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

Or ACC132

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#### **ACC228      BUSINESS TAXATION**

Credit Hours: 4    Contact Hours: 4

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

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#### **ACC229      COMPUTERIZED ACCTG APPLICATIONS**

Credit Hours: 3    Contact Hours: 4

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:**

ACC132





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**Business/ Entrepreneurial****Accounting/Finance**

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**ACC229 COMPUTERIZED ACCTG APPLICATIONS**

Credit Hours: 3 Contact Hours: 4

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:**

Or ENT123

Or ACC121

And ITD122

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**ACC232 GOVT AND NOT-FOR-PRFT ACCT**

Credit Hours: 4 Contact Hours: 4

This course introduces students to the accounting requirements for governmental entities. As part of the course students are required to complete an extensive practical applications project on governmental accounting and financial reporting. Students should have the proficiency to prepare and interpret accounting and financial reporting information of various not-for-profit organizations as well as health care organizations and educational institutions. Upon completion, the student should have a working knowledge of the budgetary and operational accounting of governmental entities, as well as the extensive reporting required for Comprehensive Annual Financial Report (CAFR).

**Pre-reqs:**

ACC122

Or ACC132

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**ACC234 ADVANCED PAYROLL**

Credit Hours: 3 Contact Hours: 3

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

**Pre-reqs:**

ACC227



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**Business/ Entrepreneurial****Accounting/Finance**

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**ACC235 FORENSIC ACCOUNTING****Credit Hours: 3 Contact Hours: 3**

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:**

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**ACC236 CYBER LAW AND ETHICS****Credit Hours: 3 Contact Hours: 3**

This course will provide the student with a thorough preparation in the law of the cyber world. The design of Cyberlaw & Ethics provides the student with a knowledge base in the context of analysis and problem solving in preparation for entry into the business cyber world and, for those students already employed in business, provides enriched perspectives to enable the student to function more effectively.

**Pre-reqs:**

IDS102

Or Test &amp; Score: ACT Reading - 19

Or Test &amp; Score: ACT Composite - 22

Or Test &amp; Score: Compass Reading - 080

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**ACC237 FRAUD EXAMINATION****Credit Hours: 4 Contact Hours: 4**

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



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**Business/ Entrepreneurial**

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**Accounting/Finance**

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**ACC238 FINANCIAL STATEMENT ANALYSIS****Credit Hours: 4 Contact Hours: 4**

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 course, the student should be able to analyze financial data and develop strategies for effectively minimizing corporate financial risk.

**Pre-reqs:**ACC133

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**ACC239 ESTATE AND INCOME TAX PLANNING****Credit Hours: 4 Contact Hours: 4**

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

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**ACC240 CMA EXAM PART 1 REV CRSE****Credit Hours: 4 Contact Hours: 4**

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

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**ACC241 CMA EXAM PART 2 REVIEW COURSE****Credit Hours: 4 Contact Hours: 4**

This course covers all of the topics that are tested on Part 2 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 2 of the CMA exam.

**Pre-reqs:**

ACC223



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**Business/ Entrepreneurial****Accounting/Finance**

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**BUS101 BUSINESS STDT SUCCESS SEMINAR**

Credit Hours: 1 Contact Hours: 2

The Student Success Skills course is designed to aid students in gaining skills necessary for success in both academic and other life settings. Topics include learning styles, critical thinking, time management, study and test-taking techniques, communication and relationship-building skills, college resource exploration, and a variety of personal development strategies. The course also encourages the development of social skills and fosters a connection with classmates at SSCT and the division. Upon completion of this course, students should be able to incorporate into their program or certificate the tools and skills necessary to be academically and professionally

**Pre-reqs:**

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**BUS124 BUSINESS ANALYSIS WITH ALG**

Credit Hours: 4 Contact Hours: 4

This course is designed to present and facilitate the mastery of the use of analysis in business applications. The applications include payroll; buying, markup and markdowns; simple interest including notes and bank discounts; 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:**

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**FIN123 FUND FINANCIAL SERVICES**

Credit Hours: 4 Contact Hours: 4

This course introduces the student to the discipline of personal financial planning and to the various services which support the planning process. The tools and techniques of those services are addressed from two perspectives: (1) a professional occupation and (2) individuals developing and implementing their own long-range financial plan. Specific topics include understanding the financial planning process, ethical and professional considerations in financial services, and introductions to the fundamentals of credit, insurance, investments, and retirement and estate planning. Upon successful completion of this course, the student should understand the fundamental concepts of personal

**Pre-reqs:**

IDS102

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080

And BUS123

Can be Taken Concurrently

Or BUS124



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**Business/ Entrepreneurial**

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**Accounting/Finance**

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**FIN220 BUSINESS FINANCE**

Credit Hours: 4 Contact Hours: 4

This course covers topics such as management and analysis of short and long-term assets and equities, their costs and their utilization in optimal corporate financial structures. Upon completion of this course, the student should be able to estimate a firm's cost of capital and discuss the risks and costs associated with the various forms of financing in a corporate setting.

**Pre-reqs:**

ACC133

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**FIN221 INVESTMENT AND SECURITIES**

Credit Hours: 4 Contact Hours: 4

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

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**FIN222 RETIREMENT PLAN/EMPLOYEE**

Credit Hours: 4 Contact Hours: 4

This course studies the fundamentals of employee benefits (including pensions and deferred compensation, group life and health insurance, Social Security, Medicare, and other fringe benefits) and the basics of the retirement planning process. Upon successful completion of this course, the student should understand the fundamental tools and techniques used in retirement and fringe benefit plans.

**Pre-reqs:**

ACC132

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**FIN223 ESTATE AND INCOME TAX PLAN**

Credit Hours: 4 Contact Hours: 4

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



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**Business/ Entrepreneurial**

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**Accounting/Finance**

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**FIN224 RISK MANAGEMENT****Credit Hours: 4 Contact Hours: 4**

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

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**FIN225 FIN SERVICES CASES/PRACT****Credit Hours: 3 Contact Hours: 4**

This course provides practical experience in six areas of financial services (fundamentals of financial planning, insurance, investments, income tax planning, retirement planning and employee benefits, and estate planning). Upon successful completion of this course, the student should be able to apply the fundamental tools and techniques of financial services to various realistic problems and cases.

**Pre-reqs:**

FIN221

And FIN224

And FIN223

Can be Taken Concurrently

And FIN222

Can be Taken Concurrently

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**FIN226 CURRENT FIN SERVICE TOPICS I****Credit Hours: 3 Contact Hours: 3**

This course addresses topics covered in the Series 6 examination. This course provides students with a clear understanding and insight of the financial markets, investment risks, and policies. It is also intended to familiarize the students with investment companies, taxation and customer accounts, variable contracts, retirement planning, securities including regulation and compliance with the various regulatory bodies. Upon completion of this course, students should be prepared to sit for the Series 6 examination.

**Pre-reqs:**

FIN123

And FIN221



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**Business/ Entrepreneurial**

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**Accounting/Finance**

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**FIN227 MONEY AND BANKING**

Credit Hours: 3 Contact Hours: 3

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, determinants 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:**

BUS124

Or BUS123

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**Business Studies**

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**BTD201 BUS INDEPENDENT STUDY**

Credit Hours: 1 Contact Hours: 10

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:**

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**BTD202 BUS INDEPENDENT STUDY**

Credit Hours: 2 Contact Hours: 20

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:**

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**BTD203 BUS INDEPENDENT STUDY**

Credit Hours: 3 Contact Hours: 30

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:**



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**Business/ Entrepreneurial**

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**Business Studies**

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**BTD203 BUS INDEPENDENT STUDY**

Credit Hours: 3 Contact Hours: 30

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:**

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**BTD204 BUS INDEPENDENT STUDY**

Credit Hours: 4 Contact Hours: 40

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:**

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**BTD222 BUSINESS CO-OP**

Credit Hours: 2 Contact Hours: 20

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:**

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**BTD223 BUSINESS CO-OP**

Credit Hours: 3 Contact Hours: 30

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:**





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**Business/ Entrepreneurial****Business Studies**

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**BTD224 BUSINESS CO-OP**

Credit Hours: 4 Contact Hours: 40

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:**

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**BTD225 SPECIAL TOPICS**

Credit Hours: 1 Contact Hours: 1

Special topics in Business Technology Division. Repeat registration permitted.

**Pre-reqs:**

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**BTD226 SPECIAL TOPICS**

Credit Hours: 2 Contact Hours: 2

Special topics in Business Technology Division. Repeat registration permitted.

**Pre-reqs:**

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**BTD227 SPECIAL TOPICS**

Credit Hours: 3 Contact Hours: 3

Special topics in Business Technology Division. Repeat registration permitted.

**Pre-reqs:**



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## Business/ Entrepreneurial

### Business Studies

#### **BTD228 SPECIAL TOPICS**

Credit Hours: 4 Contact Hours: 4

Special topics in Business Technology Division. Repeat registration permitted.

#### **Pre-reqs:**

### Business Mgt/Entrep

#### **BUS121 BUSINESS ADMINISTRATION**

Credit Hours: 4 Contact Hours: 4

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:**

IDS102

Or CHM121

Or BIO121

Or PHY121

Or ENG102

Or ACC132

Or SOC121

Or PSY121

Or ENG124

Or Test & Score: Compass Reading - 080

Or Test & Score: ACT Reading - 19

Or Test & Score: ACT Composite - 22



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## Business/ Entrepreneurial

### Business Mgt/Entrep

#### **BUS122 BASIC ECONOMICS**

Credit Hours: 3 Contact Hours: 3

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:**

- IDS102
- Or BIO125
- Or ENG102
- Or PHY121
- Or BUS121
- Or ENG124
- Or CHM121
- Or ACC132
- Or SOC121
- Or PSY121
- Or Test & Score: Compass Reading - 080
- Or Test & Score: ACT Reading - 19
- Or Test & Score: ACT Composite - 22

#### **BUS221 MICROECONOMICS**

Credit Hours: 3 Contact Hours: 3

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:**

- ENG102
- Or PHY121
- Or CHM121
- Or IDS102
- Or PSY121
- Or SOC121
- Or ACC132
- Or BUS222



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## Business/ Entrepreneurial

### Business Mgt/Entrep

#### **BUS221 MICROECONOMICS**

Credit Hours: 3 Contact Hours: 3

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: ACT Reading - 19
- Or Test & Score: ACT Composite - 22

#### **BUS222 MACROECONOMICS**

Credit Hours: 3 Contact Hours: 3

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:**

- ENG102
- Or PHY121
- Or SOC121
- Or PSY121
- Or CHM121
- Or ACC132
- Or BUS121
- Or IDS102
- Or Test & Score: Compass Reading - 080
- Or Test & Score: ACT Reading - 19
- Or Test & Score: ACT Composite - 22



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**Business/ Entrepreneurial****Business Mgt/Entrep**

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**BUS223 INTERNATIONAL ECONOMICS**

Credit Hours: 3 Contact Hours: 3

This course covers the economic analysis of international trade and foreign investment, including theories of international trade, balance of payments, exchange rates and international monetary arrangements, adjustments of payments disequilibrium, and government policies on trade and aid. Upon completion, students should be able to demonstrate an understanding of the international economic environment.

**Pre-reqs:**

BUS221

And BUS222

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**ENT120 ENTREPRENEURSHIP**

Credit Hours: 3 Contact Hours: 3

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,

**Pre-reqs:**

IDS102

Or ENG102

Or Test & Score: ACT Composite - 22

Or Test & Score: Compass Reading - 080

Or Test & Score: ACT Reading - 19

Or IDS102

Or IDS102

Or IDS102

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**ENT121 ENTREPRENEURIAL MARKETING**

Credit Hours: 3 Contact Hours: 3

Marketing for entrepreneurship will provide entrepreneurs with the marketing information designed for them. Issues such as opportunities for new ventures, pricing, and distribution for entrepreneurial firms and integrating entrepreneurship and marketing research will be discussed in class. Students will develop marketing plans for their new venture.

**Pre-reqs:**

ENT120



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## Business/ Entrepreneurial

### Business Mgt/Entrep

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#### ENT123 ENTREPRENEURIAL ACCOUNTING

Credit Hours: 3 Contact Hours: 3

This course will provide students with the accounting skills necessary to prepare and analyze basic financial records and documents. The future entrepreneur will develop an understanding of the reports generated by an accounting system. The course will also enable students to prepare start-up and operating budgets and understand pricing theories and break-even analysis. This course will assist the future entrepreneur to be able to plan strategically by using the accounting reports. Additional topics discussed in this course include understanding ratios, mastering the cash cycle, financing growth, as well as some turnaround strategies in case of troubled times. Upon successful

##### Pre-reqs:

ENT120

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#### ENT124 MANAGING ENTREPRENEURIAL GROWTH

Credit Hours: 3 Contact Hours: 3

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,

##### Pre-reqs:

ENT120

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#### ENT221 ENTREPRENEURIAL FINANCE

Credit Hours: 3 Contact Hours: 3

This course will provide the student with an understanding of the financing of entrepreneurial ventures in terms of payback and breakeven analysis. Risk Management, Forecasting, Pro Forma Financial Statements and Working Capital Management are all issues explored in this course.

##### Pre-reqs:

ENT120

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#### ENT223 ENTREPRENEURSHIP PRACTICUM

Credit Hours: 5 Contact Hours: 5

This is the capstone experience where the student puts their business plan into 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:

MGT234



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## Business/ Entrepreneurial

### Business Mgt/Entrep

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#### ENT224 ENTREPRENEURIAL LAW

Credit Hours: 3 Contact Hours: 3

This course includes the study of practical business law issues related to small business and entrepreneurs. Other issues discussed in the course include intellectual property, creditor's rights and bankruptcy, and buying and selling a business. Upon successful completion the students should be able to identify, assess and understand the different legal forms of business as well as structuring ownership, contract law and leases, human resource laws, operational liabilities and insurances, and laws surrounding the sale of goods or services.

##### Pre-reqs:

ENT120

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#### ENT225 GLOBAL ENTREPRENEURSHIP

Credit Hours: 3 Contact Hours: 3

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 draw on and integrate multidisciplinary 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-

##### Pre-reqs:

ENT120

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#### ENT226 ENTREPRENEURSHIP PRCT FIELD PR

Credit Hours: 5 Contact Hours: 5

This is the capstone experience where the student puts their business plan into 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:

ENT124

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#### FAS121 FUND OF THE FASHION INDUSTRY

Credit Hours: 3 Contact Hours: 3

This survey course covers the history, characteristics and modern fashion business environment. The course explores how apparel producers and retailers merchandise and market their products within the fashion industry and to the ultimate consumer. Principles of finance, management, organizational behavior and ethical responsibilities of fashion are also examined.

##### Pre-reqs:



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**Business/ Entrepreneurial**

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**Business Mgt/Entrep**

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**FAS122 HISTORY OF FASHION****Credit Hours: 3 Contact Hours: 3**

This course uses a visual history of fashion from ancient times to the present with particular emphasis on recent history to present a thorough overview of Western dress. Students analyze historical periods and the influence of these periods on contemporary fashion. Students will understand how clothing symbolizes roles and social position emphasizing the ways clothing communicates values and attitudes. Also discussed is how costume reflects trends in technology, music, literature and art.

**Pre-reqs:**FAS121

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**FAS123 VISUAL MERCHANDISING****Credit Hours: 3 Contact Hours: 3**

This course acquaints students with the basic techniques of effective visual merchandising to include design, color principles, tools and materials of the trade. Emphasis will be placed on retail design, including history, terminology, components and the structure of visual merchandising products. Topics include: props and fixtures, lighting and signage, installation of displays, store planning, and safety techniques common to display work in retail presentation.

**Pre-reqs:**FAS121

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**MGT121 PRINCIPLES OF MANAGEMENT****Credit Hours: 3 Contact Hours: 3**

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

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**MGT221 SUPERVISION****Credit Hours: 3 Contact Hours: 3**

This course is organized around the employee in order to emphasize the importance of working with others. Some specific areas covered are: the role of the supervisor, basic concepts of office functions, management of information, motivation, sources of power and authority, work simplification and group dynamics. Upon completion, students should be able to apply current management theory to situations that occur at the supervisory level.

**Pre-reqs:**

MGT121





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## Business/ Entrepreneurial

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#### **MGT222 SMALL BUSINESS MGT**

Credit Hours: 3 Contact Hours: 3

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

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#### **MGT223 BUSINESS DECISION MAKING**

Credit Hours: 4 Contact Hours: 4

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

#### **Pre-reqs:**

ACC133

And MGT121

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#### **MGT224 HUMAN RESOURCE MGT**

Credit Hours: 3 Contact Hours: 3

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 and labor and management relations. Upon completion, students should be able to demonstrate an understanding of the management of the human resource.

#### **Pre-reqs:**

MGT121

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#### **MGT227 OPERATIONS MANAGEMENT**

Credit Hours: 4 Contact Hours: 4

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:**



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**Business/ Entrepreneurial****Business Mgt/Entrep**

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**MGT227 OPERATIONS MANAGEMENT**

Credit Hours: 4 Contact Hours: 4

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 MTH222

Or ACC127

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**MGT232 INTERNATIONAL BUSINESS**

Credit Hours: 3 Contact Hours: 3

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

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**MGT233 BUSINESS LEADERSHIP**

Credit Hours: 3 Contact Hours: 3

This course is designed to help students develop leadership skills required to effectively listen, earn trust, and serve as an effective liaison between the business community and the organization. This course will also emphasize forms of leadership and communication styles. Analyzing stages of team development, maximizing involvement and accountability through motivational techniques, and conflict resolution will also be emphasized through the exploration of case studies. Students will build a personal leadership paradigm based upon theories, best practices, beliefs, and assumptions as applied to a specific organization. Students will have the opportunity to practice and further develop

**Pre-reqs:**

ENT120

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**MGT234 BUSINESS PLAN DEVELOPMENT**

Credit Hours: 3 Contact Hours: 3

This course is designed to provide future entrepreneurs with the foundation skills necessary to develop a business plan by focusing on critical business plan elements, including budgeting and pro-forma financial statements, management, operating and marketing strategies. The class will also provide an overview of corporate forms, financing, and common legal and tax issues. Students will discuss innovation and idea creation strategies. The emphasis of the course will be in the development of a functional business plan for either an independent new venture or for a new corporate venture while gaining a thorough knowledge of the legal requirements for establishing a business along with an

**Pre-reqs:**



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**Business/ Entrepreneurial**

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**Business Mgt/Entrep**

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**MGT234 BUSINESS PLAN DEVELOPMENT**

Credit Hours: 3 Contact Hours: 3

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**Pre-reqs:**

ENT221

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**MKT121 PRINCIPLES OF MARKETING**

Credit Hours: 3 Contact Hours: 3

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. TAG approved course- OBU006 effective Spring 2008.

**Pre-reqs:**

BUS121

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**MKT221 SALES**

Credit Hours: 3 Contact Hours: 3

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

Or ENT121

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**MKT222 ADVERTISING**

Credit Hours: 3 Contact Hours: 3

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. OCM002 TAG approved Spring 2012.

**Pre-reqs:**

MKT121



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**Business/ Entrepreneurial**

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**Business Mgt/Entrep**

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**MKT226 SUPPLY CHAIN MANAGEMENT**

Credit Hours: 3 Contact Hours: 3

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.

**Pre-reqs:**

MKT121

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**MKT227 CONSUMER BEHAVIOR**

Credit Hours: 3 Contact Hours: 3

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

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**MKT229 MARKET PLANNING**

Credit Hours: 4 Contact Hours: 4

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

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**MKT233 MARKET RESEARCH**

Credit Hours: 3 Contact Hours: 3

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 ACC127



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## Business/ Entrepreneurial

### Business Mgt/Entrep

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#### MKT234 PRINCIPLES OF TRANSPORTATION

Credit Hours: 3 Contact Hours: 3

This course will provide a thorough presentation of how transportation relates to logistics management and supply chain management. It will include an exposure to management initiatives and control techniques in transportation. The student will leave the course with a broad and general exposure to transportation and the management of transportation from both the carrier and shipper perspectives.

##### Pre-reqs:

MKT226

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#### MKT235 INTRODUCTION TO LOGISTICS

Credit Hours: 4 Contact Hours: 4

This course introduces the student to the role of logistics in national and multinational business and government activities. A variety of analytical tools and techniques useful in solving logistics will be explored. The student will understand the individual components of logistics and their interrelationships within individual companies and within the supply chain.

##### Pre-reqs:

ACC127

And MKT121

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#### MKT236 E-MARKETING

Credit Hours: 3 Contact Hours: 3

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

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### Automotive

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#### AUT121 AUTOMOTIVE TECH SKILLS

Credit Hours: 2 Contact Hours: 3

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.

##### Pre-reqs:



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**Business/ Entrepreneurial****Automotive**

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**AUT121 AUTOMOTIVE TECH SKILLS**

Credit Hours: 2 Contact Hours: 3

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.

**Pre-reqs:**

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**AUT122 AUTOMOTIVE SYS AND ENG TEC**

Credit Hours: 4 Contact Hours: 7

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

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**AUT123 ENG DIAGNOSIS AND MAJ SERV**

Credit Hours: 4 Contact Hours: 7

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

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**AUT124 VEHICLE CHASSIS SYSTEMS**

Credit Hours: 4 Contact Hours: 7

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.

**Pre-reqs:**

AUT121



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## Business/ Entrepreneurial

### Automotive

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#### **AUT125      AUTO ELEC'L AND ACCES SYS**

Credit Hours: 4   Contact Hours: 7

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.

#### **Pre-reqs:**

AUT121

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#### **AUT126      AUTO HVAC SYSTEMS**

Credit Hours: 2   Contact Hours: 3

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

#### **Pre-reqs:**

AUT121

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#### **AUT141      VEHICLE CHASSIS SYSTEMS**

Credit Hours: 2   Contact Hours: 3

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

#### **Pre-reqs:**

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#### **AUT142      AUTO ELECT SYS TOYOTA**

Credit Hours: 2   Contact Hours: 3

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-

#### **Pre-reqs:**



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**Business/ Entrepreneurial**

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**Automotive**

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**AUT143      AUTO HVAC SYS TOYOTA 750**

Credit Hours: 1   Contact Hours: 1

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

**Pre-reqs:**

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**AUT144      ELECL/ELECC TERMINAL AND CON**

Credit Hours: 1   Contact Hours: 1

This course allows students to practice and demonstrate previously obtained skills prior to any performance based assessment. This course focuses on skills necessary to work with electrical and electronic systems, sub-systems and components on GM vehicles. The secondary focus of this course is the knowledge and skills required to identify, diagnose and repair electrical terminals and connectors associated with GM vehicles.

**Pre-reqs:**

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**AUT145      ADV HVAC SYSTEMS DIAG**

Credit Hours: 1   Contact Hours: 1

This course covers an introduction to air conditioning systems and advanced HVAC systems diagnostics. The first portion of the course concentrates on R12 and R134A refrigeration systems, recovery and evacuation procedures, charging, and leak testing. Specific topics include CCOT, VDOT, and TXV systems. The second portion of the course focuses on A/C system diagnostics, with additional emphasis placed on electrical and control systems. Specific topics include automatic A/C, dual zone A/C, and rear air systems.

**Pre-reqs:**

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**AUT146      ELECC SUSPENSION SYSTEMS**

Credit Hours: 1   Contact Hours: 1

This course covers operation and diagnosis of various chassis systems, such as electronic steering systems, tire pressure monitoring systems, ride height control systems, suspension control systems, and vehicle handling control systems. Class II communications as they relate to the above systems are also covered.

**Pre-reqs:**





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**Business/ Entrepreneurial****Automotive**

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**AUT147 FOUNDATION BRAKES/ABS SYS SERV**

Credit Hours: 1 Contact Hours: 1

This course provides system operation and diagnostic information on various base and antilock brake systems, and their related components. Topics also include master cylinder operation, quick take-up valve operation, brake/drum operation, and hydraulic systems fundamentals.

**Pre-reqs:**

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**AUT148 ENG MECH DIAG AND MEASUREMENT**

Credit Hours: 2 Contact Hours: 3

This course covers the proper techniques and fundamental knowledge necessary to correctly isolate and diagnose abnormal engine conditions. Topics include: recommended diagnostic, measurement, and overhaul/repair procedures for GM engines.

**Pre-reqs:**

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**AUT150 GM MOVEABLE ROOF SYSTEMS**

Credit Hours: 2 Contact Hours: 3

This course focuses on basic hydraulic and electrical theory behind moveable roof operation, as well as, diagnosing and repairing moveable room systems on GM vehicles.

**Pre-reqs:**

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**AUT171 INTRODUCTION TO HONDA PACT**

Credit Hours: 1 Contact Hours: 1

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:**



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## Business/ Entrepreneurial

### Automotive

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#### AUT172 HONDA ENGINE MECHANICAL

Credit Hours: 2 Contact Hours: 3

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:

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#### AUT173 HONDA STEERING AND SUSPENSION

Credit Hours: 1 Contact Hours: 1

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:

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#### AUT174 HONDA BRAKING SYSTEMS

Credit Hours: 1 Contact Hours: 1

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:

AUT121

And AUT124

Can be Taken Concurrently

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#### AUT175 HONDA ELECTRICAL SYSTEMS

Credit Hours: 2 Contact Hours: 3

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:

AUT121



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## Business/ Entrepreneurial

### Automotive

#### AUT175 HONDA ELECTRICAL SYSTEMS

Credit Hours: 2 Contact Hours: 3

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:

And AUT125

Can be Taken Concurrently

#### AUT176 HONDA HVAC SYSTEMS

Credit Hours: 1 Contact Hours: 1

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:

AUT121

And AUT125

Can be Taken Concurrently

#### AUT181 INTRO TO CAT LIFT TRUCKS

Credit Hours: 1 Contact Hours: 1

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,

##### Pre-reqs:

AUT121

#### AUT182 CAT OPERATOR SAFETY TRAINING

Credit Hours: 1 Contact Hours: 1

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



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## Business/ Entrepreneurial

### Automotive

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#### **AUT183 CAT SERVICE INFORMATION SYSTEM**

Credit Hours: 1 Contact Hours: 1

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

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#### **AUT184 CAT HYDRAULIC SYSTEMS**

Credit Hours: 1 Contact Hours: 1

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

##### **Pre-reqs:**

AUT121

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#### **AUT185 CAT INTERNAL COMBUSTION ENGINE**

Credit Hours: 2 Contact Hours: 3

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

##### **Pre-reqs:**

AUT121

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#### **AUT186 CAT MASTS AND LIFT MECHANISMS**

Credit Hours: 1 Contact Hours: 1

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

##### **Pre-reqs:**

AUT121



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## Business/ Entrepreneurial

### Automotive

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#### **AUT187 CAT ELECTRICAL SYSTEMS**

Credit Hours: 3 Contact Hours: 5

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

#### **Pre-reqs:**

AUT121

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#### **AUT188 CAT STEERING SYSTEMS**

Credit Hours: 1 Contact Hours: 1

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

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#### **AUT189 CAT BRAKING SYSTEMS**

Credit Hours: 1 Contact Hours: 1

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

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#### **AUT221 FUEL AND EMISSIONS MGT SYS**

Credit Hours: 3 Contact Hours: 5

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



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## Business/ Entrepreneurial

### Automotive

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#### **AUT222 ENGINE SYS PER DIAGNOSIS**

Credit Hours: 3 Contact Hours: 5

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.

#### **Pre-reqs:**

AUT125

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#### **AUT223 ADV AUTO ELECTRONICS**

Credit Hours: 3 Contact Hours: 5

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

#### **Pre-reqs:**

AUT125

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#### **AUT224 AUTO DIESEL SYSTEMS**

Credit Hours: 2 Contact Hours: 3

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

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#### **AUT225 AUTO DRIVETRAIN 1**

Credit Hours: 3 Contact Hours: 5

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



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**Business/ Entrepreneurial****Automotive**

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**AUT226 AUTO DRIVETRAIN 2****Credit Hours: 3 Contact Hours: 5**

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

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**AUT227 COMPUTERIZED VEH CONTROL****Credit Hours: 3 Contact Hours: 5**

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

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**AUT228 AUTO SERVICE MANAGEMENT****Credit Hours: 2 Contact Hours: 3**

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:**

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**AUT229 AUTO MAINTENANCE WELDING****Credit Hours: 2 Contact Hours: 3**

This course will study the identification and basic composition of metals commonly found in automotive applications. The selection of the correct equipment, rod materials and processes used in gas and electric welding will be presented by lecture and demonstration and reinforced by laboratory assignments.

**Pre-reqs:**

AUT121



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**Business/ Entrepreneurial****Automotive**

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**AUT230 TECHNICAL PROJECT**

Credit Hours: 2 Contact Hours: 3

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:**

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**AUT231 SPECIALIZED ELEC TRAIN**

Credit Hours: 3 Contact Hours: 5

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

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**AUT232 FUEL INJECTION-EFI/PFI**

Credit Hours: 2 Contact Hours: 3

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

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**AUT233 AUTO DIAGNOSTIC APPLIC**

Credit Hours: 2 Contact Hours: 3

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

**Pre-reqs:**

AUT223





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**Business/ Entrepreneurial****Automotive**

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**AUT241 BODY CONTROL SYSTEMS**

Credit Hours: 2 Contact Hours: 3

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:**

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**AUT242 ENTERTAINMENT SYSTEMS**

Credit Hours: 2 Contact Hours: 3

This course covers methods of operation and procedures for diagnosis of both GM audio systems and video entertainment systems. Systems entered include antennas, lead-in cables, integral receivers, remote components including receivers, control heads, tape players, CD and video players, and steering wheel controls (SWC). Diagnosis and correction of audio systems, noise conditions, and video system malfunction are also covered.

**Pre-reqs:**

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**AUT243 GM AIR BAG SYSTEMS**

Credit Hours: 1 Contact Hours: 1

This course focuses on front, side, and rear air bag systems. Students will gain skills and information to identify the different air bag systems and components, disarm and safely handle system components. Diagnostic tests will be performed, utilizing the Tech 2 scan tool, and digital multimeter. The course also includes content on the safe disposal and shipping of inflator modules.

**Pre-reqs:**

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**AUT244 ALLISON LCT 1000 AUTO TRANS DI**

Credit Hours: 2 Contact Hours: 3

This course allows the students to develop the knowledge and skills needed to properly diagnose the Allison LCT 1000 Transmission conditions related to the TCM and PCM. Emphasis will be placed on recognizing normal operating parameters. Students will also perform mechanical disassembly and reassembly procedures as well as critical measurements for in-depth understanding of the ALLISON LCT 1000 Transmission.

**Pre-reqs:**



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**Business/ Entrepreneurial****Automotive**

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**AUT245 VIBRATION CORRECTION**

Credit Hours: 1 Contact Hours: 1

This course covers the theory of vibration, basic to advanced vibration diagnosis, and correction techniques. Specific topics include, usage of the electronic vibration analyzer (EVA), dial indicator, wheel balancer, and other current tools.

**Pre-reqs:**

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**AUT246 REAR AXLE & PROPELLER SHAFT**

Credit Hours: 2 Contact Hours: 3

This course provides students with the fundamentals of rear axle and propeller shaft operation. Topics include propeller shafts and limited-slip differentials, also included are proper maintenance, service procedures, basic vibration, and noise diagnosis.

**Pre-reqs:**

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**AUT247 VEH EMISSION, ENHANC TEST DI**

Credit Hours: 1 Contact Hours: 1

This course is designed to prepare the student for the enhanced inspection/maintenance (I/M) Programs. The course includes information about the enhanced I/M Programs, government regulations and emissions, emission control systems, and exhaust gas analysis. Hands-on exercises include interpreting I/M test reports, using a 5 gas engine analyzer, use of new and existing tools needed for testing oxygen sensors, catalytic converters, fuel and evaporation systems, and other emissions control components.

**Pre-reqs:**

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**AUT248 GM POWERTRAIN PERFORMANCE**

Credit Hours: 2 Contact Hours: 3

This course focuses on engine control subsystems and proper diagnosis of performance related conditions. Specific topics include: driveability, diagnosis, fuel injection systems, ignition systems, emission controls, PCM functions, and Tech 2 scan tools usage.

**Pre-reqs:**



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**Business/ Entrepreneurial****Automotive**

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**AUT249 DIESEL ENGINE PERFORMANCE**

Credit Hours: 2 Contact Hours: 3

This course focuses on the Duramax 6.6L diesel engine operation and performance, major subsystem integration, and proper diagnosis of diesel engine conditions. Specific systems covered are the fuel systems and electronic engine controls.

**Pre-reqs:**

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**AUT250 AUTO TRANSMIS/TRANSAXLE DIAG**

Credit Hours: 2 Contact Hours: 3

This course will help the student to develop the knowledge and skills needed to properly diagnose transmission faults related to electrical inputs to the PCM and their effects on transmission operation. Specifics covered in this course include: strategy based diagnostics, TCC operation, shift quality, and OBD II System diagnostic information.

**Pre-reqs:**

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**AUT251 AUTOMOTIVE DRIVETRAINS I**

Credit Hours: 1 Contact Hours: 1

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

**Pre-reqs:**

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**AUT252 AUTOMOTIVE DRIVETRAINS II**

Credit Hours: 1 Contact Hours: 1

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:**



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## Business/ Entrepreneurial

### Automotive

#### **AUT253 COMPUTERIZED VEHICLE CONTROLS**

Credit Hours: 2 Contact Hours: 3

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

#### **Pre-reqs:**

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#### **AUT271 HONDA FUEL AND EMISSION SYSTEM**

Credit Hours: 1 Contact Hours: 1

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:**

AUT121

Can be Taken Concurrently

And AUT221

Can be Taken Concurrently

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#### **AUT273 HONDA ADVANCED DIAGNOSTIC APPS**

Credit Hours: 1 Contact Hours: 1

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:**

AUT121

Can be Taken Concurrently

And AUT223

Can be Taken Concurrently

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#### **AUT275 HONDA MANUAL TRANSMISSIONS**

Credit Hours: 1 Contact Hours: 1

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:**



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### Automotive

#### **AUT275 HONDA MANUAL TRANSMISSIONS**

Credit Hours: 1 Contact Hours: 1

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:**

AUT121

Can be Taken Concurrently

And AUT225

Can be Taken Concurrently

#### **AUT276 HONDA AUTOMATIC TRANSMISSIONS**

Credit Hours: 1 Contact Hours: 1

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:**

AUT121

Can be Taken Concurrently

And AUT226

Can be Taken Concurrently

#### **AUT277 HONDA COMPUTERIZED ENGINE**

Credit Hours: 2 Contact Hours: 3

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:**

#### **AUT281 CAT DIFFRNTILS AND FRONT AXLES**

Credit Hours: 1 Contact Hours: 1

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

##### **Pre-reqs:**



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## Business/ Entrepreneurial

### Automotive

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#### **AUT281 CAT DIFFRNTILS AND FRONT AXLES**

Credit Hours: 1 Contact Hours: 1

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

#### **Pre-reqs:**

AUT121

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#### **AUT282 CAT TRANSMISSIONS**

Credit Hours: 2 Contact Hours: 3

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

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#### **AUT283 CAT FUEL SYSTEMS (LP,GASOLINE)**

Credit Hours: 2 Contact Hours: 3

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

#### **Pre-reqs:**

AUT121

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#### **AUT321 AC DELCO HVAC SYSTEM DIAGNOSTC**

Credit Hours: 1 Contact Hours: 1

This course builds on what is learned in the web courses, specifically Intro to Air and HVAC Systems Operations. Intended for experienced automotive A/C service technicians, the course focuses on A/C system diagnostics, with additional emphasis placed on the electrical and control systems. Specific topics include Automatic A/C, Dual-Zone A/C and rear air systems. Hands-on practice will enable the students to apply these concepts and procedures. The course concludes with a self-assessment worksheet to reinforce learning objectives.

#### **Pre-reqs:**

AUT121



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## **Business/ Entrepreneurial**

### **Automotive**

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#### **AUT322 AC DELCO DURAMAXX 6600 DIESEL**

Credit Hours: 1 Contact Hours: 1

This course is intended for experienced engine/drivability service technicians and focuses on the Duramax 6.6L diesel engine operation, performance and major sub-system integration. Specific systems covered are the fuel system and electronic engine controls. This course builds on what is learned in the web courses. The instructor will demonstrate Duramax 6600 engine/fuel system diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures. The course concludes with a self-assessment worksheet to reinforce learning objectives.

**Pre-reqs:**

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#### **AUT323 AC DELCO BRAKING SYSTEMS**

Credit Hours: 1 Contact Hours: 1

This course builds on what was learned in the web courses and will focus on ABS, Traction Control, and Stability systems used in today's vehicles. Theory and operation, component overview, component location, and diagnostic information will also be covered. The instructor will demonstrate proper inspection and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to vehicle stability control systems. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self-assessment worksheet to reinforce learning objectives.

**Pre-reqs:**

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#### **AUT324 AC DELCO GM OBD-II DIAGNOSTIC**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web courses (CBT) related to GM OBD-2 computer control systems. This course is intended for experienced ACDelco TSS technicians and concentrates on vehicle ECM/PCM diagnostics. The instructor will demonstrate GM-OBD-2 related diagnosis, servicing, and repair techniques. An in-depth overview of OBD-2 operating parameters, emission systems monitors, and self-diagnostics will accompany hands-on practice. On-vehicle testing will enable the students to apply these concepts and procedures to current vehicles. The course will conclude with a self-assessment worksheet to reinforce

**Pre-reqs:**

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#### **AUT325 ACDELCO CHRYSLR OBD-II EEC DIA**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web courses (CBT) related to Chrysler OBD-2 computer control systems. This course is intended for experienced ACDelco TSS technicians and concentrates on vehicle ECM/PCM diagnostics. The instructor will demonstrate Chrysler OBD-2 related diagnosis, servicing and repair techniques. An in-depth overview of OBD-2 operating parameters, emission systems monitors, and self-diagnostics will accompany hands-on practice. On-vehicle testing will enable the students to apply these concepts and procedures to current vehicles. The course concludes with a self-assessment worksheet to reinforce

**Pre-reqs:**



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**Business/ Entrepreneurial****Automotive**

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**AUT326 ACDELCO FORD-OBD-II EEC DIAGN**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web courses (CBT) related to Ford OBD-2 computer control systems. This course is intended for experienced ACDELco TSS technicians and concentrates on vehicle ECM/PCM diagnostics. The instructor will demonstrate Ford OBD-2 related diagnosis, servicing and repair techniques. An in-depth overview of OBD-2 operating parameters, emission systems monitors, and self-diagnostics will accompany hands-on practice. On-vehicle testing will enable the students to apply these concepts and procedures to current vehicles. The course concludes with a self-assessment worksheet to reinforce

**Pre-reqs:**

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**AUT327 ACDELCO HONDA EMISSION & DRIVE**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web courses (CBT) related to Honda OBD-2 computer control systems. This course is intended for experienced ACDELco TSS technicians and concentrates on vehicle ECM/PCM diagnostics. The instructor will demonstrate Honda OBD-2 related diagnosis, servicing, and repair techniques. An in-depth overview of OBD-2 operating parameters, emission systems monitors, and self-diagnostics will accompany hands-on practice. On-vehicle testing will enable the students to apply these concepts and procedures to current vehicles. The course concludes with a self-assessment worksheet to reinforce

**Pre-reqs:**

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**AUT328 ACDELCO ENGINE PERFORMANCE**

Credit Hours: 1 Contact Hours: 1

This course focuses the diagnostic skills required to properly diagnosis engine control subsystems and performance related conditions. Specific topics include: driveability diagnosis, fuel injection systems, ignition systems, emission controls, PCM functions, and scan tool usage. This course also describes the basic purpose of OBD-II and scan tool related diagnostic procedures and tests using Strategy Based Diagnostics. The instructor will demonstrate engine diagnosis and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures. The course concludes with a self-assessment worksheet to reinforce learning objectives.

**Pre-reqs:**

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**AUT329 ACDELCO BODY CONTROLS & COMMNT**

Credit Hours: 1 Contact Hours: 1

This course covers 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. This course also discusses how the body control module controls the operation of various features and subsystems used on most vehicles. The instructor will demonstrate diagnosis and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to vehicles with body control systems. The course concludes with a self-assessment worksheet to reinforce learning objectives.

**Pre-reqs:**





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## Business/ Entrepreneurial

### Automotive

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#### **AUT330 ACDELCO GM SUPPLMNTL RESTRNTS**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web courses (CBT) related to supplemental inflatable restraint systems (SIR). Intended for experienced ACDELco TSS technicians, the students will gain skill and knowledge concerning SIR components and systems. Emphasis is placed on diagnostic practices, SIR diagnostic equipment, correct service procedures, and safety concerns. The instructor will demonstrate SIR diagnosis and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to current vehicles. The course concludes with a self-assessment worksheet to reinforce learning objectives.

#### **Pre-reqs:**

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#### **AUT331 ACDELCO BATTERY,STRTNG&CHRG SY**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web courses (CBT) that relates to batteries starting and charging systems. Intended for experienced ACDELco TSS technicians, the course focuses on electrical system diagnostics. The course will concentrate on automotive and light truck starting and charging system design, purpose, and operation. The instructor will demonstrate electrical system diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to current vehicles. The course concludes with a self-assessment worksheet to reinforce learning objectives.

#### **Pre-reqs:**

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#### **AUT332 ACDELCO VIBRATION CONTROL DIAG**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web courses (CBT), specifically the terminology and equipment used to diagnose and repair vehicle noise, vibration, and harshness(NVH) problems. Intended for experienced ACDELco TSS technicians, the course focuses on case studies involving NVH diagnostics, with specific emphasis placed on the characteristics of NVH, frequency, cycle, amplitude, order, resonance, and phasing. The instructor will demonstrate the proper use of electronic vibration analyzer (EVA) during NVH diagnosis and repair confirmation. Hands-on practice will enable the students to apply these concepts and

#### **Pre-reqs:**

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#### **AUT333 AC DELCO ADV DRIVABILITY**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web courses (WBT) related to vehicle drivability concerns. This course is intended for experienced ACDELco TSS technicians and concentrates on vehicle OBD service programming and advanced drivability-related diagnostics. The instructor will demonstrate advanced drivability diagnosis, servicing, and repair techniques. An in-depth overview of OBD system programming, operating parameters, systems monitors, an self-diagnostics will accompany hands-on practice. On-vehicle testing will enable the students to apply these concepts and procedures to current vehicles. The course

#### **Pre-reqs:**



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## Business/ Entrepreneurial

### Automotive

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#### **AUT334 ACDELCO ENGINE PERF CMPT CTRLS**

Credit Hours: 1 Contact Hours: 1

Building upon the technicians knowledge obtained in the related ACDelco Engine Performance web courses, this all-makes instructor led course led course utilizes class discussion and hands on lab experience to further explore and improve the participant's electronic engine performance control system and ignition systems diagnostic skills. Course topics include: input and output device operation, testing, and diagnosis; an overview of module processing operation, testing, and diagnosis of ignition systems and subsystems, including COP (Coil on Plug). Exercises are assigned by the instructor and are comprised of: desk, bench, case study, on-vehicle, and proper tool usage activities.

#### **Pre-reqs:**

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#### **AUT335 ACDELCO ELECL CIR DIAG AND REP**

Credit Hours: 1 Contact Hours: 1

Building upon the technician's knowledge obtained in the related ACDelco electrical web courses, this instructor led course utilizes class discussion and lab exercises. Addressing the various technician knowledge and skill levels, numerous exercises and activities are utilized to tailor the participant's individual learning experience. These exercises and activities explore electrical circuit theory and operation, as well as diagnostic repair procedures. Topics include: circuit types, electrical circuit troubleshooting, and DMM usage for determining voltage drop, resistance, and amperage. Also included is an overview of connector and terminal repair procedures, and, proper use of terminal

#### **Pre-reqs:**

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#### **AUT336 ACDELCO EMISSION SYS DIAG**

Credit Hours: 1 Contact Hours: 1

This hands-on course builds on what the student has learned and practiced while taking the web course (WBT) related to vehicle emission and OBD systems. This course is intended for experienced ACDelco TSS technicians and concentrates on vehicle driveability-related emission systems diagnostics. The instructor will demonstrate emission-related diagnosis, servicing, and repair techniques. An in-depth overview of OBD-2, PCV, EGR, AIR, CAT, and EVAP operating parameters, emission systems monitors, and self-diagnostics will accompany hands-on practice. On-vehicle testing will enable the students to apply these concepts and procedures to current vehicles. The course

#### **Pre-reqs:**

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#### **AUT339 ACDELCO ADV REFRIGERANT DIAG**

Credit Hours: 1 Contact Hours: 1

Building upon the technician's knowledge obtained in the related ACDelco HVAC web courses, this all-makes, instructor led course utilizes class discussion and hands on lab experience to improve the student's diagnostic skills on the following types of automotive refrigerant systems: Cycling Clutch orifice Tube (CCOT), Variable Displacement Thermostatic Expansion Valve (VDTXV), Cycling Clutch Thermostatic Expansion Valve (CCTXV), Variable Displacement Orifice Tube (VDOT). An overview of: hybrid vehicle refrigerant systems, interpreting refrigerant gauge readings, refrigerant oil and sealant types, refrigerant type detection and sealants, system flushing, leak detection,

#### **Pre-reqs:**



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## Business/ Entrepreneurial

### Automotive

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#### **AUT340 ACDELCO HVAC CNTRLs, OPER DIAG**

Credit Hours: 1 Contact Hours: 1

Building upon the technicians knowledge obtained in the related ACDelco HVAC web courses, this all makes instructor led course utilizes class discussion and hands on lab experience to improve the participant's HVAC control system diagnostic skills with respect to: controlling compressor operation, system input devices, engine fan controls and operation, manual, electronic and automatic temperature control, air delivery and flow controls, and, one adjustable climate controls. An overview of HVAC system control operation, clutchless pulley design, single and multiple zone controls, and, airflow control is presented within this course. Exercises assigned by the instructor are comprised of:

#### **Pre-reqs:**

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#### **AUT341 ACDELCO ENG PERF FUEL AND AIR**

Credit Hours: 1 Contact Hours: 1

Building upon the technicians knowledge obtained in the related ACDelco Engine Performance web courses, this all makes instructor led course utilize class discussion and hands on lab experience to further explore and improve the participant's air induction and fuel system diagnostic skills. Course topics include: fuel injector diagnosis and cleaning, vehicle hesitation, diagnosis of air induction system sensor faults and oxygen sensors. Exercises are assigned by the instructor and are comprised of: desk, bench, case study, on-vehicle, and proper tool usage activities.

#### **Pre-reqs:**

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#### **AUT421 GM WATERLEAK AND WINDNOISE MGT**

Credit Hours: 1 Contact Hours: 1

This course consists of a WBT and a hands-on component and is intended for body/trim service technicians. Topics include proven diagnostic procedures, test equipment and methods, and tools for adjustment and sealing operations. Upon completion of this course, technicians will be able to: identify the components used for waterleak and airflow control management, identify the steps used to diagnose customer concerns pertaining to waterleaks and wind noise, identify the appropriate repair procedures to correct waterleak and windnoise concerns, and accurately and efficiently perform diagnostic and repair procedures for waterleak and windnoise conditions.

#### **Pre-reqs:**

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#### **AUT422 GM DIESEL ENGINE PER CERT ASSM**

Credit Hours: 1 Contact Hours: 1

This course is designed to teach the students the skills necessary to work with diesel engine performance systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing diesel engine performance systems by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in this course and must demonstrate proficiency of previously obtained skills.

#### **Pre-reqs:**



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**Business/ Entrepreneurial****Automotive**

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**AUT423 GM MANUAL DRVTRAIN AND AXLE**

Credit Hours: 1 Contact Hours: 1

This course is designed to teach the students the skills necessary to work with manual drivetrain and axle systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing manual drivetrain and axle systems by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in the course and must demonstrate proficiency of previously obtained skills.

**Pre-reqs:**

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**AUT424 GM HVAC CERTIFICATION ASSMT**

Credit Hours: 1 Contact Hours: 1

This course is designed to teach the students the skills necessary to work with HVAC systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing HVAC systems by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in this course and must demonstrate proficiency of previously obtained skills.

**Pre-reqs:**

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**AUT425 GM ENGINE PERFORMANCE CERT AST**

Credit Hours: 1 Contact Hours: 1

This course is designed to teach the students the skills necessary to work with engine performance systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing engine performance systems by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in this course and must demonstrate proficiency of previously obtained skills.

**Pre-reqs:**

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**AUT426 GM AUTOTRANSMISSION/TRANAXLE**

Credit Hours: 1 Contact Hours: 1

This course is designed to teach the students the skills necessary to work with automatic transmission/transaxle systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing automatic transmission/transaxle systems by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in this course and must demonstrate proficiency of previously obtained skills.

**Pre-reqs:**



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## Business/ Entrepreneurial

### Automotive

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#### **AUT427 ALT FUELS & ADV AUTO TECH**

Credit Hours: 2 Contact Hours: 3

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

#### **Pre-reqs:**

AUT223

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#### **AUT428 GM ENGINE REPAIR CERT ASSMT**

Credit Hours: 1 Contact Hours: 1

This course is designed to teach the skills necessary to work with engine systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing engine systems by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in the course and must demonstrate proficiency of previously obtained skills.

#### **Pre-reqs:**

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#### **AUT429 ELECTRICAL/ELECC CERT ASSMT**

Credit Hours: 2 Contact Hours: 3

This course is designed to teach the students the skills necessary to work with electrical and electronic systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing electrical terminals and connectors by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in the course and must demonstrate proficiency of previously obtained skills.

#### **Pre-reqs:**

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#### **AUT430 GM STEERING AND SUSP CERT ASSMT**

Credit Hours: 1 Contact Hours: 1

This course is designed to teach the students the skills necessary to work with steering and suspension systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing steering and suspension systems by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in the course and must demonstrate proficiency of previously obtained skills.

#### **Pre-reqs:**



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## Business/ Entrepreneurial

### Automotive

#### **AUT431 GM BRAKES CERTIFICATION ASSMT**

Credit Hours: 1 Contact Hours: 1

This course is designed to teach the students the skills necessary to work with braking systems, sub-systems and components on GM vehicles. The secondary focus of this course is for the student to demonstrate their knowledge and skill in identifying, diagnosing and repairing braking systems by completing a performance based assessment associated with GM vehicles. During this portion of the course, the students are tested on the information presented in the course and must demonstrate proficiency of previously obtained skills.

**Pre-reqs:**

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#### **ETD222 ENGINEERING CO-OP**

Credit Hours: 2 Contact Hours: 20

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:**

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#### **ETD224 ENGINEERING CO-OP**

Credit Hours: 4 Contact Hours: 40

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:**

## Health Sciences

### Dental Hygiene

#### **DAS121 DENTAL ASSISTING TECH I**

Credit Hours: 3 Contact Hours: 4

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:**



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## Health Sciences

### Dental Hygiene

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#### **DAS121 DENTAL ASSISTING TECH I**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **DAS122 DENTAL ASSISTING RADIOGRAPHY**

Credit Hours: 2 Contact Hours: 3

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:**

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#### **DAS123 DENTAL ASSISTING TECH II**

Credit Hours: 3 Contact Hours: 5

Builds on knowledge gained in DAS121. Health and Safety considerations for basic infection control, dental emergencies, common drugs used in dentistry, and oral disease processes are emphasized. Principles and skills of chairside assisting are further developed through demonstration and partner practice. Ethics and jurisprudence is also covered.

**Pre-reqs:**

DAS121

Can be Taken Concurrently

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#### **DAS124 DENTAL ASSISTING MATERIALS**

Credit Hours: 2 Contact Hours: 3

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:**



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## Health Sciences

### Dental Hygiene

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#### **DAS125 DENTAL ASSISTING SPECIALTY**

Credit Hours: 3 Contact Hours: 5

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

#### **Pre-reqs:**

DAS123

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#### **DAS128 INTRO TO DENTAL TERM AND ANAT**

Credit Hours: 2 Contact Hours: 2

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:**

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#### **DAS226 EXPANDED DENTAL ASSISTING I**

Credit Hours: 1 Contact Hours: 1

This course will cover basic concepts in head, neck and dental anatomy, terminology and basic tooth physiology that supports the restorative dental auxiliary functions.

#### **Pre-reqs:**

DAS227

Can be Taken Concurrently

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#### **DAS227 EXPANDED DENTAL ASSISTING II**

Credit Hours: 2 Contact Hours: 4

This course will serve to teach competency in the basic restorative procedures allowed to expanded function dental auxiliary incorporating tooth anatomy and function

#### **Pre-reqs:**

DAS226

Can be Taken Concurrently





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## Health Sciences

### Dental Hygiene

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#### **DAS228 DIRECTED CLINICAL PRACTICE**

Credit Hours: 4 Contact Hours: 8

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:**

DAS226

And DAS227

Or DHY226

Or DHY227

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#### **DHY121 HEAD, NECK AND ORAL ANATOMY**

Credit Hours: 2 Contact Hours: 3

The course addresses gross anatomy of the head and neck, tooth morpholgy and physiology of occlusion.

#### **Pre-reqs:**

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#### **DHY122 ORAL HIST AND EMBRYOLOGY**

Credit Hours: 1 Contact Hours: 1

Embryological development and histologic characteristics of the orofacial organs and structures is presented.

#### **Pre-reqs:**



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## Health Sciences

### Dental Hygiene

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#### DHY123 DENTAL RADIOGRAPHY

Credit Hours: 3 Contact Hours: 5

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:

DHY121

Can be Taken Concurrently

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#### DHY124 PERIODONTICS I

Credit Hours: 2 Contact Hours: 2

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

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#### DHY125 DENTAL MATERIALS

Credit Hours: 3 Contact Hours: 5

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

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#### DHY126 PATHOLOGY

Credit Hours: 2 Contact Hours: 3

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



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## Health Sciences

### Dental Hygiene

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#### DHY127 COMMUNITY ORAL HLTH-RESEACH

Credit Hours: 1 Contact Hours: 1

Concepts of research design and methodology in community program planning are discussed. Assessing, planning, implementing and evaluating the oral health of various populations in a community setting are presented. Learning experiences emphasize reading and reviewing scientific literature, understanding statistical reporting and the levels of public health prevention and administration.

#### Pre-reqs:

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#### DHY131 FUND DENTAL HYGIENE PRAC

Credit Hours: 4 Contact Hours: 8

An introduction to dentistry, the dental hygiene profession, and ethical and professional patient care, terminology and basic skills utilized in the contemporary practice of dental hygiene, including infection control procedures and patient assessment and treatment are covered. Concepts are applied in a preclinical setting with manikins and student partners.

#### Pre-reqs:

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#### DHY132 DENTAL HYGIENE THEORY I

Credit Hours: 1 Contact Hours: 2

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

And DHY133

Can be Taken Concurrently

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#### DHY133 CLINICAL DENTAL HYG I

Credit Hours: 2 Contact Hours: 6

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:

DHY131



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## Health Sciences

### Dental Hygiene

#### DHY133 CLINICAL DENTAL HYG I

Credit Hours: 2 Contact Hours: 6

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

And DHY132

Can be Taken Concurrently

#### DHY134 CLINICAL DENTAL HYG IA

Credit Hours: 1 Contact Hours: 3

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

Basic concepts of nutrition and the effects on general as well as oral health are presented. The role of nutrition in dentistry for disease prevention and health promotion is emphasized. Dietary analysis and counseling methodologies are discussed and practiced.

**Pre-reqs:**

DHY132

#### DHY222 DENTAL PHARMACOLOGY

Credit Hours: 2 Contact Hours: 2

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



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## Health Sciences

### Dental Hygiene

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#### DHY222 DENTAL PHARMACOLOGY

Credit Hours: 2 Contact Hours: 2

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:

And DHY126

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#### DHY223 COMMUNITY ORAL HEALTH II

Credit Hours: 1 Contact Hours: 2

Concepts of assessing, planning, implementing and evaluating oral health programs for community groups is presented. This course focuses on program planning models, incorporation of research methods into programs development and evaluation and offers practical application of community health concepts. Field experience required.

#### Pre-reqs:

DHY127

And DHY134

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#### DHY224 PERIODONTICS II

Credit Hours: 1 Contact Hours: 1

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

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#### DHY225 ANESTHESIA AND PAIN CONTROL

Credit Hours: 2 Contact Hours: 4

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



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## Health Sciences

### Dental Hygiene

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#### DHY225 ANESTHESIA AND PAIN CONTROL

Credit Hours: 2 Contact Hours: 4

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:

And DHY121

And DHY132

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#### DHY231 DENTAL HYGIENE THEORY II

Credit Hours: 2 Contact Hours: 2

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

And DHY232

Can be Taken Concurrently

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#### DHY232 CLINICAL DENTAL HYG II

Credit Hours: 4 Contact Hours: 12

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

And DHY231

Can be Taken Concurrently



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## Health Sciences

### Dental Hygiene

#### DHY233 DENTAL HYGIENE THEO III

Credit Hours: 2 Contact Hours: 2

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

And DHY234

Can be Taken Concurrently

#### DHY234 CLINICAL DENTAL HYG III

Credit Hours: 5 Contact Hours: 15

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

And DHY233

Can be Taken Concurrently

### General Health

#### HTH101 STUDENT SUCCESS HEALTH SEMINAR

Credit Hours: 1 Contact Hours: 2

The Student Success Skills course is designed to aid students in gaining skills necessary for success in both academic and other life settings. Topics include learning styles, critical thinking, time management, study and test-taking techniques, communication and relationship-building skills, college resource exploration, and a variety of personal development strategies. The course also encourages the development of social skills and fosters a connection with classmates at SSCT and the division. Upon completion of this course, students should be able to incorporate into their program or certificate the tools and skills necessary to be academically and professionally

#### Pre-reqs:



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## Health Sciences

### General Health

#### HTH121 INTRO TO HEALTH CAREERS

Credit Hours: 1 Contact Hours: 1

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:**

### Fire and EMS

#### EMS121 EMERGENCY MEDICAL TECHNICIAN

Credit Hours: 6 Contact Hours: 10

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.

**Pre-reqs:**

#### EMS122 PARAMEDIC I/SEMINAR

Credit Hours: 10 Contact Hours: 20

This course provides theory and skills at the EMT-Paramedic level for managing medical emergencies including patient assessment, medio-legal issues, airway management, fluid therapy and pharmacology, geriatric care and management of respiratory emergencies. In-hospital training and infield internship are included.

**Pre-reqs:**

BIO101

And EMS121

#### EMS123 EMERGENCY MEDICAL RESPONDER

Credit Hours: 3 Contact Hours: 3

The Emergency Medical Responder course provides theory and practical skills training for managing medical and traumatic situations at the EMR level and follows the objectives as listed in the Ohio Administrative Code.

**Pre-reqs:**





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## Health Sciences

### Fire and EMS

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#### **EMS123      EMERGENCY MEDICAL RESPONDER**

Credit Hours: 3    Contact Hours: 3

The Emergency Medical Responder course provides theory and practical skills training for managing medical and traumatic situations at the EMR level and follows the objectives as listed in the Ohio Administrative Code.

#### **Pre-reqs:**

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#### **EMS221      PARAMEDIC II/SEMINAR**

Credit Hours: 10    Contact Hours: 20

This course is a continuation of Paramedic I and includes theory and skills in the assessment and management of cardiac emergencies including rhythm interpretation and dysrhythmia treatment modalities as well as assessment and advanced management of trauma. Also included is management of obstetrical, neonatal and pediatric emergencies. In-hospital training and infield internship are included.

#### **Pre-reqs:**

EMS122

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#### **EMS222      PARAMEDIC III/SEMINAR**

Credit Hours: 4    Contact Hours: 6

Successful completion of this course provides opportunity for certification in Advanced or Basic Trauma Life Support and Pediatric Advanced Life Support as well as additional critical care transport skills. This course is designed to prepare the student for National Registry Testing.

#### **Pre-reqs:**

EMS221

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#### **FST128      FIREFIGHTER 1A -36 HOUR**

Credit Hours: 2    Contact Hours: 3

This is the Firefighter 1A, 36 hour, Volunteer course. This course provides the training, knowledge, and skills required to become a state certified firefighter trained to be Volunteer Firefighter level. Upon completion of this course the student must pass a State of Ohio test to become certified. This course can be used as the first step in a three step process in becoming a fulltime professional firefighter trained to the Firefighter I & II level. CTAG CTVFF approved Spring 2012.

#### **Pre-reqs:**



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## Health Sciences

### Fire and EMS

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#### **FST129      FIREFIGHTER 1C-1 120 HR**

Credit Hours: 5   Contact Hours: 8

This is the Firefighter 1C-1, Level I 120 hour course. This course provides the training, knowledge, and skills required to become a state certified firefighter trained to the Firefighter I level. Upon completion of this course the student must pass a State of Ohio test to become certified. This course can be used as the first step in a two step process in becoming a fulltime professional firefighter trained to the Firefighter I & II level. CTAG CTFF1002 approved Spring 2012.

**Pre-reqs:**

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#### **FST224      LGL ASPECTS OF FIRE SERV**

Credit Hours: 2   Contact Hours: 2

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:**

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#### **FST225      HAZARDOUS MATERIALS**

Credit Hours: 3   Contact Hours: 3

In-depth study of chemical characteristics and reactions related to the storage, transportation, and handling of hazardous materials such as flammable liquids, combustible solids, oxidizing and corrosive materials, and radioactive compounds. Emphasis will be placed on emergency situations, firefighting and control. The study of health hazards will also be included.

**Pre-reqs:**

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#### **FST226      LINE OFFICER LEADERSHIP**

Credit Hours: 3   Contact Hours: 3

Broad management theory and application of basic strategy and tactics for company officers is the focus of this course.

**Pre-reqs:**



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## Health Sciences

### Fire and EMS

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#### **FST228      FIREFIGHTER LEVEL 1/ 2 240 HR**

Credit Hours: 10   Contact Hours: 16

This course provides the training, knowledge, and skills required to become a state certified firefighter. Training includes fire behavior incident systems, building construction, personal protective equipment, rescue and extrication, ground ladders, fire cause determination and fire tactics. The students will become proficient through lecture and hands-on experience using up to date, realistic tools and equipment. Successful completion of this course is required to take the state firefighter's test. CTAG CTFF2003 approved Spring 2012.

#### **Pre-reqs:**

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#### **FST229      FIREFIGHTER 1B 84 HOUR**

Credit Hours: 3   Contact Hours: 5

This is the Firefighter 1B, 84 hour transition course. This course provides the training, knowledge, and skills required to become a state certified firefighter trained to the Firefighter I level. Upon completion of this course the student must pass a State of Ohio test to become certified. This course can be used as a second step in a three step process in becoming a fulltime professional firefighter trained to the Firefighter I & II level.

#### **Pre-reqs:**

FST128

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#### **FST230      FIREFIGHTER 1C-2-120 HOUR**

Credit Hours: 5   Contact Hours: 8

This is the Firefighter 1C-2, Level II 120 hour course. This course provides the training, knowledge and skills required to become a state certified firefighter trained to the Firefighter II level. Upon completion of this course the student must pass a State of Ohio test to become certified. This course can be used as the final step in a two step process in becoming a fulltime professional firefighter trained to the Firefighter I & II level or as a Final step in the three step process in becoming a fulltime professional firefighter trained to the Firefighter I & II level.

#### **Pre-reqs:**

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### Health Info/Med Trans

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#### **HIT121      HTLH DATA MGT AND DELIVRY SYSM**

Credit Hours: 4   Contact Hours: 6

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.

#### **Pre-reqs:**



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## Health Sciences

### Health Info/Med Trans

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#### HIT122 ALTERNATIVE HLTH RECS AND REGST

Credit Hours: 3 Contact Hours: 4

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

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#### HIT123 HLTHCRE LEGAL AND ETHICAL ISS

Credit Hours: 2 Contact Hours: 2

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:

HIT121

Can be Taken Concurrently

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#### HIT124 CLINICAL CLASSIFICATNS SYS I

Credit Hours: 4 Contact Hours: 6

ICD-9-CM coding system and its application in coding diagnoses and procedures; applying coding guidelines with accuracy and completeness using manual and computerized encoding systems; review of the inpatient prospective payment system; study of various nomenclature and classification systems used in the healthcare field

#### Pre-reqs:

HIT121

And BIO122

Or BIO123

And BIO124

Can be Taken Concurrently



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## Health Sciences

### Health Info/Med Trans

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#### **HIT221 CLINICAL CLASSIFICATNS SYS II**

Credit Hours: 3 Contact Hours: 4

CPT-4/HCPCS coding system and its application in coding procedures; applying coding guidelines with accuracy and completeness using manual and computerized encoding systems; applying coding guidelines of previously learned coding principles; review of the outpatient prospective payment system.

#### **Pre-reqs:**

BIO222

And HIT124

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#### **HIT222 HLTHCRE STATSTICS AND RESEARCH**

Credit Hours: 3 Contact Hours: 4

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

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#### **HIT223 HIM SUPERVSN:CONCPTS AND PRACT**

Credit Hours: 3 Contact Hours: 3

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

And ENG222

Can be Taken Concurrently



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## Health Sciences

### Health Info/Med Trans

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#### **HIT224      QUALITY MGT IN HEALTHCARE**

Credit Hours: 2    Contact Hours: 2

Components of quality management in healthcare including quality assessment and improvement; utilization review; risk management and credentialing; use of quality improvement tools and techniques to assess, monitor, and report performance improvement activities; accreditation and regulatory requirements; outcome measures and patient safety.

#### **Pre-reqs:**

HIT222

Can be Taken Concurrently

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#### **HIT226      PROFESSIONAL PR I/SEM I**

Credit Hours: 4    Contact Hours: 9

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:**

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#### **HIT227      PROFESSIONAL PR II/SEMII**

Credit Hours: 4    Contact Hours: 9

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:**

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#### **HIT229      HLTH INFO SYSTEMS AND TECH**

Credit Hours: 3    Contact Hours: 4

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:**

CAP120

Or    BCA120



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## Health Sciences

### Health Info/Med Trans

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#### **HIT229 HLTH INFO SYSTEMS AND TECH**

Credit Hours: 3 Contact Hours: 4

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:**

And HIT224

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#### **HIT230 HLTH CARE DELIVERY IN THE US**

Credit Hours: 2 Contact Hours: 2

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:**

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#### **HIT231 CODING PROF PRACTICE EXP/SEMIN**

Credit Hours: 2 Contact Hours: 6

The Student is placed in a health care setting for supervised coding experience. This enables the student to apply technical skills in ICD-9-CM AND CPT coding, APC and DRG assignment and other reimbursement methodologies.

#### **Pre-reqs:**

HIT124

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#### **HIT232 HLTHCRE REIMBURSEMENT METHODOL**

Credit Hours: 2 Contact Hours: 2

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



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## Health Sciences

### Health Info/Med Trans

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#### **HIT233 CLINICAL CLASSIFICATION SYS III**

Credit Hours: 2 Contact Hours: 4

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

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#### **MTC121 MED TRANS/TERM I**

Credit Hours: 5 Contact Hours: 8

Transcription of dictated medical reports organized by body system. Emphasis on the development of accuracy and medical knowledge for the transcription of various medical specialty reports; utilizing reference materials and other resources effectively; tools and technology; proofreading and editing techniques; profile of the profession; electronic health record and confidentiality.

#### **Pre-reqs:**

BIO123

Can be Taken Concurrently

And BIO125

Can be Taken Concurrently

And AOT121

Can be Taken Concurrently

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#### **MTC122 MED TRANS/TERM II**

Credit Hours: 5 Contact Hours: 8

Continuation of skill development in medical transcription with emphasis on the development of accuracy and medical knowledge and utilizing reference materials and other resources effectively; emphasis on proofreading and editing techniques, grammar and punctuation.

#### **Pre-reqs:**

MTC121

And BIO124

Can be Taken Concurrently

And AOT121

Can be Taken Concurrently





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## Health Sciences

### Health Info/Med Trans

#### **MTC123 MED TRANS/TERM III**

Credit Hours: 3 Contact Hours: 6

Advanced medical transcription skill development with emphasis on accuracy, speed, medical knowledge and difficult dictation; utilizing reference materials and other resources effectively; proofreading and editing techniques; tools and technology.

#### **Pre-reqs:**

MTC122

And BIO222

Can be Taken Concurrently

### Massage Therapy

#### **MAS121 MESSAGE THERAPY I**

Credit Hours: 6 Contact Hours: 8

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:**

#### **MAS122 MESSAGE THERAPY II**

Credit Hours: 2 Contact Hours: 3

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



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## Health Sciences

### Massage Therapy

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**MAS123      MESSAGE THERAPY A & P I**

Credit Hours: 1    Contact Hours: 1

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. Students will make visual presentations of assignments involving muscle groups.

**Pre-reqs:**

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**MAS124      MESSAGE THERAPY A & P II**

Credit Hours: 2    Contact Hours: 2

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:**

MAS123

And BIO122

Can be Taken Concurrently

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**MAS223      MESSAGE THERAPY REVIEW**

Credit Hours: 3    Contact Hours: 3

This course contains a review of human anatomy and physiology in preparation for the Ohio State Medical Board exam for certification in Massage Therapy as a Limited Medical Practice.

**Pre-reqs:**

BIO122

Or BIO123

And MAS226

Can be Taken Concurrently



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## Health Sciences

### Massage Therapy

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#### **MAS224      MESSAGE THERAPY III**

Credit Hours: 4   Contact Hours: 6

In this course the students continue to study the practice of Massage Therapy in both a general and clinical setting.

#### **Pre-reqs:**

MAS122

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#### **MAS225      MESSAGE THERAPY IV**

Credit Hours: 2   Contact Hours: 3

In this course students continue to study the practice of Massage Therapy in both a general and clinical setting.

#### **Pre-reqs:**

MAS224

And MAS228

Can be Taken Concurrently

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#### **MAS226      MESSAGE THERAPY V**

Credit Hours: 3   Contact Hours: 4

In this course, students will examine various Massage Therapy Practices in the clinical setting. Massage procedures from various works will be used in the study of treatment of systemic and musculoskeletal dysfunctions. (Also reviews for state test.)

#### **Pre-reqs:**

MAS124

And MAS225

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#### **MAS227      MESSAGE THERAPY PROCEDURES**

Credit Hours: 2   Contact Hours: 3

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.

#### **Pre-reqs:**



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## Health Sciences

### Massage Therapy

#### **MAS227      MESSAGE THERAPY PROCEDURES**

Credit Hours: 2   Contact Hours: 3

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.

##### **Pre-reqs:**

MAS121

#### **MAS228      PROFESSIONAL PRACTICE & EVALUATION**

Credit Hours: 1   Contact Hours: 2

Investigation into State Medical Board requirements and licensing and examination of topics related to issues relevant to professional massage therapy practice, culminating in in-class presentation. Also application of skills to course instructor followed by comprehensive evaluation of student performance.

##### **Pre-reqs:**

MAS225

Can be Taken Concurrently

#### **MAS229      CLINIC OPERATIONS**

Credit Hours: 2   Contact Hours: 3

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 utilizing massage therapy office software. 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 CERT OF COMP AND RE**

Credit Hours: 3   Contact Hours: 3

This course contains a review of Massage Therapy Theory in preparation for the Ohio State Medical Board Limited Branch examination for certification in Massage Therapy as a limited medical practice. Upon successful completion of this course, certificate holders who have been unsuccessful in passing the State Medical Board test after three attempts will earn the Certificate of Competency required by the Medical Board in order to retest. Certificate holders from accredited schools who do not need the Certificate of Competency may utilize this course as a review in preparation for the State Medical Board test.

##### **Pre-reqs:**

### Medical Assisting



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## Health Sciences

### Medical Assisting

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#### **MAT121 MEDICAL ASSISTING I**

Credit Hours: 5 Contact Hours: 7

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 the "Total Concept of Patient Care" communication skills and the techniques employed by the medical assistant during a general physical examination: taking and recording vital signs, measuring visual and hearing acuity, practicing and applying medical and surgical asepsis and infection control. The proper techniques employed in performing irrigation of the ear. Students will begin to understand the process of assisting with minor office surgical procedures, sterile dressing changes and suture removal.

#### **Pre-reqs:**

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#### **MAT122 MEDICAL ASSISTING II**

Credit Hours: 5 Contact Hours: 7

Medical Assisting II focuses on performing and assisting with advanced clinical skills: venipuncture/specimen preparation, electrocardiography, suture insertion, wound irrigation and wound care, gynecological examination, specimen preparation, and instructions for self breast examination, positioning and draping of patients for specific examinations, urinary bladder catheterization, medical records and theory of x-rays and diagnostic radiology testing. Patient communication skills and patient education are employed through role-playing. Documentation of clinical procedures is stressed throughout the course of study. Pathophysiology is presented as related to procedures. CTAG

#### **Pre-reqs:**

MAT121

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#### **MAT123 MEDICAL ASSISTING III**

Credit Hours: 2 Contact Hours: 6

The "Total Concept of Patient Care" simulation gives Medical Assisting students the opportunity to incorporate and use their acquired knowledge of clinical and administrative procedures in health care delivery while working and managing the S & T Clinic. The S & T Clinic is a structured and controlled OSHA/CLIA compliant environment, simulating a medical office, for the sole purpose of integrating skills and preparing the student for externship in a clinical facility. Medical Assisting III precedes Medical Assisting Seminar, fifth semester. Seminar is an integral part of MAIII. Students will be recertified in CPR before completion of Medical Assisting III.

#### **Pre-reqs:**

MAT122

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#### **MAT124 MEDICAL OFFICE PROCEDURES I**

Credit Hours: 3 Contact Hours: 4

The first eight-weeks this course will focus on preparing students for medical office administrative procedures including medical records management and filing procedures. Students will perform medical transcription with the use of medical dictation equipment and computer word-processing. The second eight weeks will focus on developing an understanding of ethics and various points of view on bioethical issues.

#### **Pre-reqs:**

MAT121



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## Health Sciences

### Medical Assisting

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#### **MAT221 MED LAB PROC FOR MED ASSTG**

Credit Hours: 3 Contact Hours: 4

Introduction to basic medical laboratory techniques used in the physician's office with emphasis on quality assurance in all aspects of lab procedures. Laboratory safety and proper use of laboratory instruments is stressed. Our lab is run in compliance with OSHA/CLIA standards. Lab tests taught represent all departments of a clinical lab and includes spirometry. Pathophysiology is presented as related to procedures. CTAG CTMAT009 & CTMAT010 approved Spring 2012.

#### **Pre-reqs:**

MAT122

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#### **MAT222 INSURANCE FOR MEDICAL ASSISTNG**

Credit Hours: 3 Contact Hours: 3

This course focuses on developing a knowledge of private, government and managed care insurances. Students will learn to code from a CPT and ICD-9 codebook and complete hard copy manual claims. Students will also learn the manual pegboard system and post charges and insurance payments to the pegboard. This course covers risk management for reimbursement issues following up on unpaid claims, and appealing disallowed claims. Students will fill out hard copy CMS 1500 form. CTAG CTMAT005 & CTMAT006 approved Spring 2012.

#### **Pre-reqs:**

MAT124

Can be Taken Concurrently

And MAT122

Can be Taken Concurrently

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#### **MAT223 MEDICAL OFFICE PROCEDURES II**

Credit Hours: 4 Contact Hours: 4

This course is designed to build on techniques learned in MAT124 and focus on preparing students for advanced medical office administrative procedures and provides a foundation beginning with professional behavior interpersonal techniques. Hands-on projects are designed for the student to experience appointment scheduling, telephone screening, written communication, billing and collection techniques, general banking, and accounts payable. Medical office computer software is used extensively. Student demonstrates the ability to organize their work, set priorities, and make decisions. CTAG CTMAT004 approved Spring 2012.

#### **Pre-reqs:**

MAT122

And ENG124

And MAT124

And MTH101

Or MTH103

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20



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## Health Sciences

### Medical Assisting

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#### **MAT224 PHARMACOLOGY/MEDICATIONS**

Credit Hours: 4 Contact Hours: 5

Course focuses on specific drug classifications, their 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.

#### **Pre-reqs:**

MAT122

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#### **MAT225 EMERGENCY MEDICAL PROCEDURES**

Credit Hours: 2 Contact Hours: 3

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

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#### **MAT226 MEDICAL LAW AND MANAGEMENT**

Credit Hours: 3 Contact Hours: 3

This course is designed to prepare potential managers and supervisors to develop a broad perspective and gain insight into human relations. The course deals with basic management principles and focuses on problem solving, conflict resolution, hiring, training, appraising and disciplining employees. It also teaches management duties such as marketing the practice, financial management, and physician credentialing. Laws that relate to employment are also part of the course.

#### **Pre-reqs:**

MAT122

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#### **MAT227 EXTERNSHIP MEDICAL ASSISTING**

Credit Hours: 2 Contact Hours: 12

The student is placed in a medical facility for 160 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:**

MAT123

Can be Taken Concurrently



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## Health Sciences

### Medical Assisting

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#### **MAT228      OPTHALMOLOGY I**

Credit Hours: 3    Contact Hours: 3

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

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#### **MAT229      OPTHALMOLOGY II**

Credit Hours: 3    Contact Hours: 3

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

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#### **MAT230      ADV PHLEBOTOMY**

Credit Hours: 3    Contact Hours: 4

Advanced Phlebotomy is designed for Stark State College of Technology students who have had venipuncture or Certified Medical Assistants with at least one year of drawing experience. It focuses on hospital or clinical phlebotomy and expands to specimen collection, handling and transporting as well as safety and infection control practices that protect a phlebotomist while in class or at a clinical facility. There is emphasis on collecting specimens from hard-to-draw patients and tests that are often unique to a hospital. This course is designed to complete educational requirements for candidates to sit for the National (NCA) Clinical Laboratory Phlebotomy Certification examination.

#### **Pre-reqs:**

MAT122

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#### **MAT231      REIMBURSEMENT FR HLTH CARE SER**

Credit Hours: 3    Contact Hours: 3

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:**





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## Health Sciences

### Medical Assisting

#### **MAT232 HOSPITAL PHLEBOTOMY**

Credit Hours: 3 Contact Hours: 4

This course focuses on anatomy, physiology and medical terminology pertinent to phlebotomy, phlebotomy and microcapillary puncture skills collection/handling of specimens, transporting specimens, off-site testing and drawing in special units of a hospital. Quality assurance, infection control, safety, law and ethics are important elements of the course. Students must attain clinical competency to be eligible for the hospital-based phlebotomy experience. Students who successfully complete the course would be eligible to sit for National Certification in Phlebotomy. Admittance to the class by approval of the program coordinator.

#### **Pre-reqs:**

IDS102

Or Test & Score: ACT Reading - 14

Or Test & Score: Compass Reading - 066

And BIO125

Can be Taken Concurrently

#### **MAT233 MEDICAL ASSISTING SEMINAR**

Credit Hours: 1 Contact Hours: 2

This course is designed to teach students how to write resumes, cover letters and how to interview for employment. Students will also prepare for externship

#### **Pre-reqs:**

MAT123

Can be Taken Concurrently

### Medical Lab

#### **MLT121 FUNDAMENTALS OF LAB TECH**

Credit Hours: 3 Contact Hours: 4

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:**



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## Health Sciences

### Medical Lab

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#### **MLT122 URINALYSIS AND BODY FLUIDS**

Credit Hours: 3 Contact Hours: 5

Course is structured to expose the student to the analysis of urine by macroscopic, chemical and microscopic techniques to determine the presence of soluble, insoluble substances and their relationship to disease. The class uses urine specimens, prepared slides and case histories. Course introduces topics of information, composition, and function of synovial, cerebrospinal, serous, amniotic, and seminal fluids. Course will describe the methods used in the routine analysis of these fluids, along with correlation of results with normal and disease states. TAG OHL010 approved Spring 2012.

#### **Pre-reqs:**

MLT124

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#### **MLT123 HEMATOLOGY I**

Credit Hours: 3 Contact Hours: 5

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

#### **Pre-reqs:**

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#### **MLT124 HEMATOLOGY II**

Credit Hours: 4 Contact Hours: 6

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

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#### **MLT125 IMMUNOHEMATOLOGY**

Credit Hours: 5 Contact Hours: 7

This course introduces the concepts of basic genetics of red cell antigens. The student will study the significance of the blood cell antigens and antibodies. The course includes ABO and Rh typing, crossmatching procedures, antibody detection and identification. A study of hemolytic disease of the newborn, its treatment and detection is included. Other topics in the course are composition and use of the specific blood component, overview of donor requirements.

#### **Pre-reqs:**

MLT126



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## Health Sciences

### Medical Lab

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#### **MLT126 IMMUNOLOGY/SEROLOGY**

Credit Hours: 3 Contact Hours: 4

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 as 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:**

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#### **MLT222 CLINICAL CHEMISTRY**

Credit Hours: 5 Contact Hours: 7

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:**

BIO123

Or BIO121

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#### **MLT223 CLINICAL MICROBIOLOGY**

Credit Hours: 7 Contact Hours: 9

The student will study the morphology and identification of microorganisms commonly found in humans, their relationship to disease states and their susceptibility to antibiotics. Topics include: basic structures and functions of bacteria; culture, growth and development requirements; classification of microbes; infectious disease; control of disease; laboratory safety; unknowns for identification from ATCC (American Type Culture Collection) seeded cultures; videotapes and kodachromes. Other topics include mycology, parasitology and virology.

#### **Pre-reqs:**

BIO221

And MLT126

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#### **MLT225 MLT APPLICATIONS**

Credit Hours: 3 Contact Hours: 9

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 cytopins, routine serology, blood banking using tube and gel techniques.

#### **Pre-reqs:**



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## Health Sciences

### Medical Lab

#### **MLT225 MLT APPLICATIONS**

Credit Hours: 3 Contact Hours: 9

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 cytopins, routine serology, blood banking using tube and gel techniques.

##### **Pre-reqs:**

MLT223

And MLT125

And MLT222

#### **MLT226 MLT DIRECTED PRACTICE**

Credit Hours: 6 Contact Hours: 30

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

And MLT227

Can be Taken Concurrently

#### **MLT227 MLT SEMINAR**

Credit Hours: 1 Contact Hours: 1

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 MLT226

Can be Taken Concurrently

### Nursing



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## Health Sciences

### Nursing

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#### HTD201      HLTH INDEP STUDY

Credit Hours: 1   Contact Hours: 10

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:**

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#### HTD202      HLTH INDEP STUDY

Credit Hours: 2   Contact Hours: 20

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:**

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#### HTD203      HLTH INDEP STUDY

Credit Hours: 3   Contact Hours: 30

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:**

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#### HTD204      HLTH INDEP STUDY

Credit Hours: 4   Contact Hours: 40

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:**



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## Health Sciences

### Nursing

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#### **NUR121 FUND CONCEPTS IN NURSING**

Credit Hours: 6 Contact Hours: 9

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:**

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#### **NUR122 NURSE CARE CHILDBEAR FAM**

Credit Hours: 4 Contact Hours: 7

This course focuses on nursing care of the child-bearing family. New trends in maternity-child nursing are included. CTAG CTADNUR002 approved Spring 2012.

#### **Pre-reqs:**

BIO122

And CHM122

And ENG124

And NUR221

Or NUR225

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#### **NUR123 NURSING CARE OF CHILDREN**

Credit Hours: 4 Contact Hours: 8

This course focuses on nursing care of children and their families experiencing alterations in health. Nursing care plans are developed for all age ranges of children. Alterations in health are studied in relation to their effect on the developmental status of children. CTAG CTADNUR002 approved Spring 2012.

#### **Pre-reqs:**

NUR122

Can be Taken Concurrently



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## Health Sciences

### Nursing

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#### **NUR201      TRANSITION FOR LPNS**

Credit Hours: 5    Contact Hours: 7.5

This course is designed for the licensed practical nurse who is admitted to the Nursing Program with advanced standing. Content includes introduction to ADN philosophy, refinement of the nursing process and nursing assessment, role transition and select trends in nursing. Select nursing skills will be evaluated in the learning laboratory as a means of validating safe performance of these skills.

#### **Pre-reqs:**

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#### **NUR221      NUR CARE PERSON/ALT I**

Credit Hours: 6    Contact Hours: 9

This course introduces the nursing care of persons with alterations in health, with continued emphasis on technical nursing skills. The peri-operative experience is also introduced. The health care needs of the young and middle adult are examined. CTAG CTADNUR002 approved Spring 2012.

#### **Pre-reqs:**

BIO121

Or BIO123

And CHM121

And NUR121

And PSY121

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#### **NUR222      NUR CARE PERSON/ALT II**

Credit Hours: 8    Contact Hours: 14

This course provides for further development and application of concepts in nursing of persons experiencing alterations in health. Principles in oncology nursing are introduced. The course examines the basis of a therapeutic relationship between the nurse and the client. Integrated within the course is the use of the nursing process with clients with common alterations in psychosocial health.

#### **Pre-reqs:**

And NUR201

And NUR123



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## Health Sciences

### Nursing

#### **NUR223 NUR CARE PERSON/ALT III**

Credit Hours: 8 Contact Hours: 13

This course continues to develop the knowledge base necessary for nursing practice. Initially, the course focuses on the nursing care of clients with more complex and acute health problems. Emergency nursing principles are introduced. Management concepts, the organization as a system and the nurse as a manager of client care are subsequently addressed. Application of these concepts is facilitated through a preceptorship. This directed nursing practice will assist in role transition from student to beginning associate degree nurse.

#### **Pre-reqs:**

NUR222

#### **NUR224 NURSING SEMINAR**

Credit Hours: 1 Contact Hours: 1

This course examines issues related to the role transition from student to entry-level associate degree nurse. Emphasis is placed on student's involvement in exploring issues relevant to practice as a staff nurse.

#### **Pre-reqs:**

BIO221

And NUR222

And SOC121

And NUR223

Can be Taken Concurrently

#### **NUR225 TRANSITION FOR THE PARAMEDIC**

Credit Hours: 6 Contact Hours: 10

This course is designed for the Paramedic who is admitted to the Nursing Program with advanced standing. Content includes an introduction to the Associate Degree Nursing philosophy and concepts of the nursing profession. Emphasis is placed on the nursing process, nursing health assessment and the roles and responsibilities of the professional nurse. Trends in nursing and role transition will be explored. Select nursing skills will be evaluated in the learning laboratory as a means of validating safe performance of the skills. Students must have internet access in order to successfully complete this course.

#### **Pre-reqs:**

### Occupational Therapy





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## Health Sciences

### Occupational Therapy

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#### **DMA122      SERVSAFE EXPERIENCE**

Credit Hours: 1    Contact Hours: 2

This course provides off campus experience, in conjunction with (DMA126) Management of Food Service Operations for the Dietary Manager Experience, 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:**

DMA121

Can be Taken Concurrently

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#### **DMA127      DIETARY OPERATIONS DELIVERY**

Credit Hours: 3    Contact Hours: 3

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:**

DMA128

Can be Taken Concurrently

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#### **DMA128      DIETARY OPERATIONS DEL EXP**

Credit Hours: 3    Contact Hours: 5

This course provides off campus experience in a community facility or food service industry, integrated 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:**

DMA127

Can be Taken Concurrently

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#### **OTA121      FOUNDATIONS OF OT**

Credit Hours: 3    Contact Hours: 4

Explains the profession of occupational therapy, the roles and functions of occupational therapy personnel, the areas of occupational performances and the theoretical basis of using goal-directed activities. Observation in local occupational therapy clinics is scheduled.

#### **Pre-reqs:**



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## Health Sciences

### Occupational Therapy

#### **OTA122 THERAPEUTIC MEDIA**

Credit Hours: 3 Contact Hours: 4

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:**

OTA121

Can be Taken Concurrently

#### **OTA123 PSYCHOSOCIAL ASPECTS OT**

Credit Hours: 4 Contact Hours: 4

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:**

OTA122

And OTA124

Can be Taken Concurrently

And PSY221

And PSY121

#### **OTA124 PSYCHOSOCIAL CLINICAL EX**

Credit Hours: 3 Contact Hours: 5

Skill development in group processes and didactic interactions. Supervised work experience and interactions with persons who have psychological dysfunctions.

#### **Pre-reqs:**

OTA121

And OTA123

Can be Taken Concurrently



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## Health Sciences

### Occupational Therapy

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#### OTA221 DEVELOP ASPECTS IN OT

Credit Hours: 4 Contact Hours: 4

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:

OTA121

And BIO123

Or BIO122

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#### OTA222 DEV CLINICAL EXPERIENCE

Credit Hours: 3 Contact Hours: 5

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:

BIO123

Or BIO122

And OTA124

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#### OTA223 LIFE SPAN DEVELOPMENT

Credit Hours: 5 Contact Hours: 5

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



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## Health Sciences

### Occupational Therapy

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#### OTA224 OT IN PHYSICAL DYSFUN

Credit Hours: 4 Contact Hours: 4

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:

BIO124

Can be Taken Concurrently

And OTA124

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#### OTA225 PHYS DYSFUNCTION CLINIC

Credit Hours: 3 Contact Hours: 5

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:

OTA222

And OTA224

Can be Taken Concurrently

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#### OTA226 OT ASST SEMINAR

Credit Hours: 2 Contact Hours: 2

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



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## Health Sciences

### Occupational Therapy

#### OTA227 CLINICAL APPLICATIONS I

Credit Hours: 3 Contact Hours: 40

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

And OTA226

Can be Taken Concurrently

#### OTA228 CLINICAL APPLICATIONS II

Credit Hours: 3 Contact Hours: 40

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

And OTA226

Can be Taken Concurrently

### Physical Therapy Technology

#### PTA121 FUNDAMENTALS OF PT

Credit Hours: 4 Contact Hours: 5

The student is introduced to the field of physical therapy, basic standards of practice, current professional issues and interaction 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:



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## Health Sciences

### Physical Therapy Technology

#### **PTA122 MUSCULOSKELETAL ANATOMY**

Credit Hours: 4 Contact Hours: 5

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:**

BIO123

Can be Taken Concurrently

Or BIO122

Can be Taken Concurrently

#### **PTA123 KINESIOLOGY**

Credit Hours: 4 Contact Hours: 5

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

#### **PTA124 MST PROCEDURES FOR PTA**

Credit Hours: 2 Contact Hours: 3

The student will learn data collecting and documentation for therapeutic measurement skills including goniometry and manual muscle testing.

##### **Pre-reqs:**

PTA123

And PTA221



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## Health Sciences

### Physical Therapy Technology

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#### **PTA125      PROF CLIN PRACT FOR PTA**

Credit Hours: 1    Contact Hours: 1

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 Fundamentals of Physical Therapy and PTA Procedures I to clinical situations.

#### **Pre-reqs:**

PTA123

And PTA221

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#### **PTA221      PTA PROCEDURES I**

Credit Hours: 5    Contact Hours: 7

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:**

PTA122

And PTA123

Can be Taken Concurrently

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#### **PTA222      PTA PROCEDURES II**

Credit Hours: 5    Contact Hours: 7

This course will present to the students the impairments, disabilities, functional limitations, and interventions of selected musculoskeletal, rheumatological 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:**

PTA124

And BIO124

And PTA125

And PTA228

And PTA229

Can be Taken Concurrently

Can be Taken Concurrently



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## Health Sciences

### Physical Therapy Technology

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#### PTA223      PTA PROCEDURES III

Credit Hours: 2    Contact Hours: 3

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 with patients under direct PT/PTA supervision as part of the laboratory component of this course.

#### Pre-reqs:

PTA222

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#### PTA226      FUNCTIONAL ANATOMY

Credit Hours: 4    Contact Hours: 5

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:

BIO123

Or    BIO122

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#### PTA227      DIRECTED PRACTICE III

Credit Hours: 3    Contact Hours: 15

Selected clinical experience in various physical therapy settings under direct supervision.    Grading: Credit/Fail

#### Pre-reqs:

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#### PTA228      SEMINAR I

Credit Hours: 2    Contact Hours: 2

Presentation of topics related to clinical practice to include ethics and professional development.

#### Pre-reqs:

PTA124





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## Health Sciences

### Physical Therapy Technology

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#### PTA228 SEMINAR I

Credit Hours: 2 Contact Hours: 2

Presentation of topics related to clinical practice to include ethics and professional development.

#### Pre-reqs:

And PTA125

And PTA222

Can be Taken Concurrently

And PTA229

Can be Taken Concurrently

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#### PTA229 DIRECTED PRACTICE I

Credit Hours: 3 Contact Hours: 16

Clinical experience in various physical therapy departments under direct supervision. Grading: Credit/Fail

#### Pre-reqs:

PTA124

And PTA125

And PTA222

Can be Taken Concurrently

And PTA228

Can be Taken Concurrently

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#### PTA230 SEMINAR II

Credit Hours: 1 Contact Hours: 1

Presentation of diverse clinical issues and approaches to patient management.

#### Pre-reqs:

PTA222

And PTA228

And PTA229



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## Health Sciences

### Physical Therapy Technology

#### PTA231 DIRECTED PRACTICE II

Credit Hours: 2 Contact Hours: 10

Clinical experience in various physical therapy departments under direct supervision. Grading: Credit/Fail

#### Pre-reqs:

PTA229

### Dietary Management

#### DMA121 SERVSAFE

Credit Hours: 1 Contact Hours: 1

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

#### Pre-reqs:

DMA122

Can be Taken Concurrently

#### DMA123 NUTRITION MED NUTRITION THER

Credit Hours: 3 Contact Hours: 3

This course provides foundation knowledge of basic nutrition, plus extensive coverage of medical nutrition therapy. A sampling of the 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, Centers for Medicare & Medicaid Services (CMS) regulations, laboratory values and nutrition facts labeling, as well as many other critical care conditions..

#### Pre-reqs:

DMA124

Can be Taken Concurrently

#### DMA124 NUTRITION MED NUTR THER EXP

Credit Hours: 3 Contact Hours: 5

This course provides Nutrition and Medical Nutrition Therapy (MNT) experience in an off-campus facility. This experience is integrated 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:

DMA123

Can be Taken Concurrently



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## Health Sciences

### Dietary Management

#### **DMA125 MFS OPER FOR DIETARY MGRS**

Credit Hours: 3 Contact Hours: 3

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

Can be Taken Concurrently

#### **DMA126 MFS FOR DIETARY MGRS EXP**

Credit Hours: 3 Contact Hours: 5

This course provides Foodservice Operations Management experience in an off-campus facility. This experience is integrated with the academic instruction of DMA 125, directly supervised by a Registered Dietitian, a Registered Dietetic Technician or a Certified Dietary Manager

#### **Pre-reqs:**

DMA125

Can be Taken Concurrently

### Respiratory Therapy/MIST

#### **MIS121 MED INSTRUM STERLIZATION I/SEM**

Credit Hours: 4 Contact Hours: 12

This course presents the student with an overview of the technical functions of the field of central service/medical instrument sterilization and its application to the hospital environment. Topics include orientation to the work environment, decontamination procedures, infection control, and disinfection. Students gain the technical skills through exposure to the central service area in a hospital/clinic environment.

#### **Pre-reqs:**

BIO125

Can be Taken Concurrently

And BIO101

Can be Taken Concurrently

Or BIO121

Or BIO123



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## Health Sciences

### Respiratory Therapy/MIST

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#### **MIS122 MED INSTRUMENT STERIL II/SEM**

Credit Hours: 6 Contact Hours: 14

This course will present the student with an exposure to the technical functions of the field of central service/medical instrument sterilization with an emphasis on sterilization procedures, standards and practice, operations, inventory, distribution and product standardization. Students gain the technical skills through exposure to the central service area in a hospital/clinic environment.

#### **Pre-reqs:**

MIS121

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#### **MIS123 INTRO TO SURGICAL TERM/MCROBIO**

Credit Hours: 3 Contact Hours: 3

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 relationships between medical products and instruments, how they are used, and the factors in disease transmission that compromise surgical patient outcomes.

#### **Pre-reqs:**

MIS121

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#### **MIS221 MED INSTRUMENT STER III/SEMINA**

Credit Hours: 6 Contact Hours: 14

This course presents the student with an exposure to the technical functions of the field of central service/medical instrument sterilization with an emphasis on instrumentation, wrapping, quality assurance, handling, processing, and standards and practice. Students gain the technical skills through exposure to the central service area in a hospital/clinic environment.

#### **Pre-reqs:**

MIS122

And MIS123

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#### **RCT121 INTRO TO RC PROCEDURES**

Credit Hours: 3 Contact Hours: 4

An introduction to the field of respiratory care: the job functions of the respiratory therapy profession; orientation to charting techniques; patient positioning; vital sign assessment; cleaning and sterilization; isolation techniques; and other procedures required for entry into the hospital setting.

#### **Pre-reqs:**



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## Health Sciences

### Respiratory Therapy/MIST

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#### **RCT122 MED GAS ADMINISTRATION**

Credit Hours: 3 Contact Hours: 4

An introduction to the basics of oxygen administration, aerosol and humidification therapy.

#### **Pre-reqs:**

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#### **RCT123 AIRWAY MANAGEMENT PROCED**

Credit Hours: 3 Contact Hours: 4

An introduction to the therapeutic modalities used in the treatment of pulmonary disease to include: aerosol therapy, intermittent positive pressure breathing, postural drainage and percussion and the maintenance of a clear airway.

#### **Pre-reqs:**

RCT121

And RCT122

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#### **RCT124 PHARMACOLOGY FOR RT**

Credit Hours: 2 Contact Hours: 2

An orientation to general pharmacology including drug groups, dosage, effects and dispensing regulations. Emphasis is placed on those drugs used in the treatment and management of cardiopulmonary disease to include: bronchodilators, mucokinetics, steroids and other drugs.

#### **Pre-reqs:**

BIO123

Or BIO122

And RCT121

And RCT122

And RCT123

Can be Taken Concurrently



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## Health Sciences

### Respiratory Therapy/MIST

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#### **RCT125 CLINICAL PRACTICE BP/SEM**

Credit Hours: 3 Contact Hours: 17

Hospital-acquired experiences consisting of the practical application of principles presented in Intro to Respiratory Care Procedures. Experiences provided include an introduction to basic patient care skills such as: medical asepsis, vital sign monitoring, charting procedures, isolation and resuscitation. Also included are experiences in medical gas administration, aerosol therapy and intermittent positive pressure breathing therapy.

#### **Pre-reqs:**

RCT121

And RCT122

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#### **RCT126 INTRO TO CRITICAL CARE**

Credit Hours: 3 Contact Hours: 4

An orientation to the principles related to the care of the critically ill patient with an emphasis on mechanical ventilation.

#### **Pre-reqs:**

RCT123

And RCT124

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#### **RCT127 CARDIOPULMONARY A AND P**

Credit Hours: 3 Contact Hours: 3

An orientation to the anatomy and physiology of the respiratory system and the cardiac system.

#### **Pre-reqs:**

BIO123

Or BIO122

And RCT123

And RCT124



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## Health Sciences

### Respiratory Therapy/MIST

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#### **RCT128 CLIN PRACT-AIRW MGT/SEM**

Credit Hours: 2 Contact Hours: 9

Hospital-acquired experiences consisting of a practical application of the principles covered in airway management. Experiences are provided in the area of airway management, spontaneous aerosol therapy, intermittent positive pressure breathing therapy, postural drainage and percussion, tracheobronchial suctioning, as well as the principles and practices presented in Clinical Practice - Basic Procedures.

##### **Pre-reqs:**

RCT123

And RCT124

And RCT125

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#### **RCT221 ADVANCE RT PROCEDURES**

Credit Hours: 3 Contact Hours: 4

An orientation to pulmonary function tests, pulmonary rehabilitation, and respiratory care principles and practices related to the care of neonate and pediatric patients, including a review of the cardiopulmonary diseases affecting the neonate and the pediatric patient.

##### **Pre-reqs:**

RCT126

And RCT127

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#### **RCT222 RESPIRATORY DISEASES**

Credit Hours: 3 Contact Hours: 3

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

And RCT127



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## Health Sciences

### Respiratory Therapy/MIST

#### **RCT223 PATIENT ASSMNST AND MONITOR**

Credit Hours: 3 Contact Hours: 3

Exposure to various procedures and techniques associated with the monitoring and evaluation of the patient with cardiopulmonary disease.

#### **Pre-reqs:**

RCT221

And RCT222

#### **RCT224 CLIN PRAC CRIT CARE/SEM**

Credit Hours: 3 Contact Hours: 17

Hospital-acquired experiences consisting of the practical application of the principles presented in Introduction to Critical Care. Experiences provided include an exposure to ventilatory management, arterial punctures and other procedures related to the critically ill patient.

#### **Pre-reqs:**

RCT124

And RCT126

And RCT128

And RCT127

#### **RCT225 CLIN PRACT SPEC ROT/SEM**

Credit Hours: 5 Contact Hours: 25

Hospital-acquired experiences consisting of the practical application of the principles covered in previous clinical practice courses and in advanced respiratory care procedures. Experiences provided include exposure to the management of the critically ill adult patient and the newborn and/or pediatric patient, pulmonary function testing and endotracheal intubation. Seminar: Exposure to the various credentialing examinations required of a registered respiratory therapist. Students are provided with practice on the entry level examination, written registry examination, and the clinical simulation examination. The student is required to successfully complete each of these practice

#### **Pre-reqs:**

RCT127

And RCT221

And RCT222

And RCT224

## Engineering Tech

### Automotive





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## Engineering Tech

### Automotive

#### **ETD202      ENG INDEP STUDY**

Credit Hours: 2    Contact Hours: 20

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:**

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#### **ETD204      ENG INDEPENDENT STUDY**

Credit Hours: 4    Contact Hours: 40

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:**

### General Engineering

#### **CET238      TECH PROJECT-CIVIL ENGINEERING**

Credit Hours: 3    Contact Hours: 4

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

### Engineering



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## Engineering Tech

### Engineering

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#### CET121 BLDG MAT AND CON MET

Credit Hours: 3 Contact Hours: 4

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. This course is Ohio TAG approved. OET016 effective Summer 2008.

#### Pre-reqs:

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#### CET122 ARCHITECTURAL DRAFT I

Credit Hours: 3 Contact Hours: 5

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:

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#### CET123 ARCHITECTURAL DRAFT II

Credit Hours: 3 Contact Hours: 5

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:

CET122

And CET121

Can be Taken Concurrently

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#### CET124 HIGHWAY AND MAP DRAWING

Credit Hours: 2 Contact Hours: 4

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:

MTH121



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## Engineering Tech

### Engineering

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#### **CET124 HIGHWAY AND MAP DRAWING**

Credit Hours: 2 Contact Hours: 4

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:**

Or MTH125

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#### **CET125 SOIL MECHANICS**

Credit Hours: 3 Contact Hours: 4

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:**

MTH121

Or MTH125

And MET124

Can be Taken Concurrently

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#### **CET221 SURVEYING GRAPHICS**

Credit Hours: 3 Contact Hours: 4

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



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## Engineering Tech

### Engineering

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#### **CET222 CONCRETE AND ASPHALT TEST**

Credit Hours: 3 Contact Hours: 4

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:**

CET121

And MTH121

Or MTH125

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#### **CET223 STRUCTURAL DESIGN I**

Credit Hours: 3 Contact Hours: 4

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

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#### **CET224 STRUCTURAL DESIGN II**

Credit Hours: 3 Contact Hours: 5

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 retaining walls will also be studied. Current computer software for structural analysis will be used.

#### **Pre-reqs:**

CET223

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#### **CET225 SUSTAINABLE BDG SRVCE SYS**

Credit Hours: 3 Contact Hours: 4

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:**



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## Engineering Tech

### Engineering

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#### **CET225 SUSTAINABLE BDG SRVCE SYS**

Credit Hours: 3 Contact Hours: 4

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

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#### **CET226 ESTIMATING**

Credit Hours: 3 Contact Hours: 5

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:**

CET121

And ECA122

And MTH121

Or MTH125

And CET122

Or DET125

Or CET237

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#### **CET227 SURVEYING I**

Credit Hours: 3 Contact Hours: 5

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:**

MTH121

Can be Taken Concurrently

Or MTH125

Can be Taken Concurrently

Or MTH125



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## Engineering Tech

### Engineering

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#### **CET228 SURVEYING II**

Credit Hours: 3 Contact Hours: 5

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

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#### **CET229 SURVEYING III**

Credit Hours: 3 Contact Hours: 5

The primary emphasis of this course will be the use of the electronic total station to perform surveying operations. Increased abilities and accuracies of field work, including precision measurement, will be demonstrated and obtained by students in such areas as traversing, horizontal and spiral curve layout, construction staking and data gathering for topographic maps. Appropriate computer software will be used. The student will also experience increased usage of digital levels and automatic data collection along with geodetic survey methods and state plane coordinate systems.

#### **Pre-reqs:**

CET228

And ECA122

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#### **CET231 LEGAL PRINC OF SURVEYING**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **CET232 LAND PLANNING AND DESIGN**

Credit Hours: 3 Contact Hours: 5

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



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## Engineering Tech

### Engineering

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#### **CET232 LAND PLANNING AND DESIGN**

Credit Hours: 3 Contact Hours: 5

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#### **Pre-reqs:**

Or CET124

Or DET125

And CET227

Can be Taken Concurrently

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#### **CET233 ARCHITECTURAL DESIGN**

Credit Hours: 3 Contact Hours: 5

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

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#### **CET234 A/E CAD**

Credit Hours: 2 Contact Hours: 4

Building on the concepts learned in Basic AutoCAD, this course is designed to explore the production of architectural working drawings using software designed specifically for the architectural/engineering disciplines. Students will produce a variety of architectural working drawings on the computer-aided drafting system.

#### **Pre-reqs:**

CET121

And CET122

And DET125



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## Engineering Tech

### Engineering

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#### **CET235 CONSTRUCT MGT, JOB COST AND SAF**

Credit Hours: 3 Contact Hours: 3

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

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#### **CET236 GLOBAL POSITIONING SYS**

Credit Hours: 3 Contact Hours: 4

Introduction to Global Positioning System to determine location on earth in a three dimensional way (latitude, longitude and elevation). Students will practice the use of electronic receivers using radio signals to collect data and process later using computers. The use surveying and topography mapping is also included.

#### **Pre-reqs:**

CET227

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#### **CET237 INTERPRETING CONSTRUCTION DOC**

Credit Hours: 2 Contact Hours: 3

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.

#### **Pre-reqs:**

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#### **CET239 BUILDING CODE APPLICATION**

Credit Hours: 2 Contact Hours: 3

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





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## Engineering Tech

### Engineering

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#### **CET239 BUILDING CODE APPLICATION**

Credit Hours: 2 Contact Hours: 3

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:**

And CET237

Or CET122

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#### **DET121 ENGINEERING DRAWING**

Credit Hours: 3 Contact Hours: 5

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:**

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#### **DET122 DESCRIPTIVE GEOMETRY**

Credit Hours: 3 Contact Hours: 5

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

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#### **DET124 WORKING DRAWINGS**

Credit Hours: 3 Contact Hours: 5

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



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## Engineering Tech

### Engineering

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#### DET124 WORKING DRAWINGS

Credit Hours: 3 Contact Hours: 5

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:

And DET125

Can be Taken Concurrently

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#### DET125 BASIC AUTOCAD

Credit Hours: 3 Contact Hours: 5

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:

ECA122

Or ECA127

Or ITD122

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#### DET126 CUSTOMIZING AUTOCAD

Credit Hours: 3 Contact Hours: 4

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

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#### DET131 PRO/ENGINEER

Credit Hours: 3 Contact Hours: 4

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:



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## Engineering Tech

### Engineering

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#### DET131 PRO/ENGINEER

Credit Hours: 3 Contact Hours: 4

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:

DET121

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#### DET223 KINEMATICS

Credit Hours: 3 Contact Hours: 5

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

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#### DET226 GEOMETRIC DIM AND TOL

Credit Hours: 2 Contact Hours: 3

Designed to introduce students to the type of dimensioning that is part of ANSI Y14.5M1994 dimensioning standard. General tolerancing methods will be reviewed first, then the geometric characteristics symbols and terms will be discussed. Datums will be defined and modifiers will be identified. The geometric tolerances of form, runout, orientation, profile and location will be analyzed in detail. The GD&T system will then be applied to actual manufacturing drawings. Special attention will be given to the problems that are experienced in industry between design, manufacturing and inspection personnel.

#### Pre-reqs:

DET124

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#### DET230 ADVANCED AUTOCAD (INVENTOR)

Credit Hours: 3 Contact Hours: 4

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.

#### Pre-reqs:

DET125



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## Engineering Tech

### Engineering

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#### DET231 TOOL DESIGN

Credit Hours: 3 Contact Hours: 5

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

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#### EET120 DC CIRCUIT ANALYSIS

Credit Hours: 4 Contact Hours: 5

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:

MTH121

Or MTH125

Can be Taken Concurrently

And MTH128

Can be Taken Concurrently

Or Test & Score: ACT Math - 23

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#### EET122 AC CIRCUIT ANALYSIS

Credit Hours: 4 Contact Hours: 5

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



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## Engineering Tech

### Engineering

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#### EET123 ELECTRONIC DEVICES AND CIRCUITS

Credit Hours: 4 Contact Hours: 5

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

Or EST130

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#### EET125 CIRCUITS MANUFAC TECHNIQUES

Credit Hours: 1 Contact Hours: 2

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

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#### EET126 ELECTRICAL MACHINES

Credit Hours: 4 Contact Hours: 5

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

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#### EET128 NEC AND ELECTRICAL SYS DES

Credit Hours: 2 Contact Hours: 3

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



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## Engineering Tech

### Engineering

#### EET129 OPTICS

Credit Hours: 2 Contact Hours: 3

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

#### EET142 LGHT DES, APP AND ELECL ELEM I

Credit Hours: 2 Contact Hours: 4

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

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,

#### Pre-reqs:

#### EET225 DIGITAL COMM AND SYS ANALY

Credit Hours: 3 Contact Hours: 6

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



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## Engineering Tech

### Engineering

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#### EET225 DIGITAL COMM AND SYS ANALY

Credit Hours: 3 Contact Hours: 6

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:

And EET262

Can be Taken Concurrently

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#### EET226 TRANSMISSION AND DISTRIBUTION

Credit Hours: 3 Contact Hours: 4

This course encompasses power transmissions and distribution systems, components and analysis. Field trips to appropriate sites comprise the laboratory requirement.

#### Pre-reqs:

EET122

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#### EET227 PLCS AND INDUSTRIAL CONTROLS I

Credit Hours: 3 Contact Hours: 4

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.

#### Pre-reqs:

EET120

Or EST130

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#### EET228 PLCS AND INDUSTRL CONTROLS II

Credit Hours: 3 Contact Hours: 4

Application and analysis of microprocessor-based computer systems and programmable logic controllers to industrial control systems. Introduction to closed systems control (PID control) and robot control. Introduction and application of Programmable Logic Control Network Interfaces. Human-machine interfaces topics are also addressed.

#### Pre-reqs:

EET227



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## Engineering Tech

### Engineering

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#### EET230 ELECTRONIC CIRCUITS I

Credit Hours: 4 Contact Hours: 5

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

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#### EET231 ELECTRONIC CIRCUITS II

Credit Hours: 3 Contact Hours: 4

A study of power amplifier design, heat sinking, differential amplifiers, operational amplifiers, IC fundamentals, feedback and oscillator circuits.

#### Pre-reqs:

EET230

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#### EET232 INDUSTRIAL ELECTRONICS

Credit Hours: 4 Contact Hours: 5

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

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#### EET233 TECH PROJECT ELECTRICAL

Credit Hours: 1 Contact Hours: 2

A course designed to allow the student to demonstrate capabilities acquired during previous course work in the electrical program. The student will choose an approved project compatible with interest and background. The project may be in the area of controls, machine building, electrical design, or power generation and transmission. The scope will be determined by the project, but in general, will include research, testing, drawing, actual construction, a report and presentation.

#### Pre-reqs:

EET123

And EET227





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## Engineering Tech

### Engineering

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#### EET235      TECH PROJECT ELECTRONIC

Credit Hours: 1    Contact Hours: 2

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

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#### EET244      ELECC TELECOMMUNICATIONS

Credit Hours: 3    Contact Hours: 4

A course dealing with telecommunications hardware and software. Laboratory exercises address both hardware and software applications.

#### Pre-reqs:

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#### EET246      TECH PROJ - COMP NETWKG

Credit Hours: 3    Contact Hours: 5

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:

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#### EET248      WORKSTATION INTERFACING

Credit Hours: 4    Contact Hours: 4

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:



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## Engineering Tech

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#### EET248 WORKSTATION INTERFACING

Credit Hours: 4 Contact Hours: 4

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:

ECA128

And EET262

Can be Taken Concurrently

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#### EET262 PULSE AND DIGITL INTEGRATD CIR

Credit Hours: 4 Contact Hours: 6

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:

ECA128

Or ECA222

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#### EET263 INDUSTRIAL SENSORS/ADV APPLCS

Credit Hours: 2 Contact Hours: 3

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



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## Engineering Tech

### Engineering

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#### ETD121      **ENGINEER STUDENT SUCCESS SEMINAR**

Credit Hours: 1    Contact Hours: 2

The Student Success Skills course is designed to aid students in gaining skills necessary for success in both academic and other life settings. Topics include learning styles, critical thinking, time management, study and test-taking techniques, communication and relationship-building skills, college resource exploration, and a variety of personal development strategies. The course also encourages the development of social skills and fosters a connection with classmates at SSCT and the division. Upon completion of this course, students should be able to incorporate into their program or certificate the tools and skills necessary to be academically and professionally

#### **Pre-reqs:**

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#### MET123      **MATERIAL SCIENCE**

Credit Hours: 2    Contact Hours: 3

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:**

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#### MET124      **STATICS/STR OF MATERIALS**

Credit Hours: 4    Contact Hours: 5

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 inertia, 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:**

MTH125

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#### MET221      **ADV STRENGTH OF MATERIAL**

Credit Hours: 2    Contact Hours: 3

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



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## Engineering Tech

### Engineering

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#### **MET222 FLUID POWER**

Credit Hours: 4 Contact Hours: 5

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

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#### **MET223 DYNAMICS**

Credit Hours: 2 Contact Hours: 3

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

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#### **MET225 MANUFACTURING PROCESSES**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **MET226 TECH PROJECT-MECHANICAL**

Credit Hours: 2 Contact Hours: 4

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:**

ETD121

And DET125



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## Engineering Tech

### Engineering

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#### **MET226      TECH PROJECT-MECHANICAL**

Credit Hours: 2    Contact Hours: 4

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:**

Or    DET131

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#### **MET227      THERMODYNAMICS & HEAT TRANSFER**

Credit Hours: 3    Contact Hours: 4

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

And    MTH125

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#### **MET228      MACHINE DESIGN**

Credit Hours: 4    Contact Hours: 5

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

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#### **MET229      ALT ENERGY SOURCES/FUEL CELLS**

Credit Hours: 3    Contact Hours: 4

This course introduces the student to alternative energy sources such as solar, wind, geothermal, hydro-electric, biofuel, and fuel cells. Nearly half of the courses addresses fuel cell topics such as components (anode, cathode, electrolyte, flow fields), fuels (hydrogen and hydrocarbons) and types of fuel cells (Polymer Electrolyte Membrane, Solid Oxide, Alkaline, Phosphoric Acid, Molten Carbonate). Laboratory experiences will include alternative energy and fuel cell experiments and writing laboratory reports.

#### **Pre-reqs:**



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## Engineering Tech

### Engineering

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#### **MET230 ANA/APPS OF FUEL CELLS**

Credit Hours: 3 Contact Hours: 4

This course addresses the different types of fuel cells: Polymer Electrolyte Membrane, Solid Oxide, Alkaline, Phosphoric Acid, Molten Carbonate, and Direct Methanol among others. Material properties, operating characteristics, functions and real world applications are discussed and analyzed through different experiments.

#### **Pre-reqs:**

MET229

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#### **MET231 FUEL CELL SYSTEMS**

Credit Hours: 3 Contact Hours: 4

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

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#### **MET232 FUEL CELL PROJECT**

Credit Hours: 3 Contact Hours: 4

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 materials, procuring necessary materials, documenting methodology assembling a model, evaluating performance, and presenting the proposal.

#### **Pre-reqs:**

MET231

Can be Taken Concurrently

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#### **MST126 PIPEFITTING PRINC AND APPLIC**

Credit Hours: 4 Contact Hours: 4

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:**

MTH101

Or MTH103



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## Engineering Tech

### Engineering

#### MST126 PIPEFITTING PRINC AND APPLIC

Credit Hours: 4 Contact Hours: 4

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:

Or Test & Score: Compass Algebra - 042

And Test & Score: ACT Math - 20

### Engineering/Applied

#### AET121 SUSTAINABLE/AET SOURCES

Credit Hours: 3 Contact Hours: 4

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

#### Pre-reqs:

#### AET122 ANALYSIS/APP OF SET

Credit Hours: 3 Contact Hours: 4

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

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 alternative 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:



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## Engineering Tech

### Engineering/Applied

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#### **AET123 SUSTAINABLE/ALT ENERGY SYS**

Credit Hours: 3 Contact Hours: 4

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 alternative energy systems. Topics include: safety procedures, interconnect systems, series versus parallel electrical conduction, power conditioning of DC and AC voltages and currents, heat transfer, and interfacing with the power grid.

#### **Pre-reqs:**

AET122

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#### **AET124 SUSTAINABLE/ALT ENERGY PROJECT**

Credit Hours: 3 Contact Hours: 4

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 materials, procuring necessary materials, documenting the methodology, assembling a model, evaluating performance, and presenting the proposal.

#### **Pre-reqs:**

AET123

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#### **AIT122 MACHINE TOOLS**

Credit Hours: 3 Contact Hours: 5

With assigned lab projects, the student will cover basic machine operations used in area industries. Topics include safety, basic machines, precision tools, layout procedures, cutting tools and various machine setups to accomplish laboratory projects. Inspection and quality control will be stressed.

#### **Pre-reqs:**

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#### **AIT123 ADVANCED MACHINE TOOLS**

Credit Hours: 4 Contact Hours: 6

With assigned lab projects, the student will cover advanced machine operations not possible in the beginning course. In-depth coverage of inspection and quality-control precision tools for students with basic knowledge of the trade. Specialized processes such as indexing, gear-cutting, technology of cutting tools and basic exposure to computer numerical control machines.

#### **Pre-reqs:**





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## Engineering Tech

### Engineering/Applied

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#### **AIT124 PRINCIPLES OF RIGGING**

Credit Hours: 2 Contact Hours: 2

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:**

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#### **AIT125 COMMERCIAL PLUMBING**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **AIT126 IND ELECL APPLIC AND SAFETY**

Credit Hours: 2 Contact Hours: 3

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:**

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#### **AIT127 LOW PRESSURE STEAMPLANT OPERTS**

Credit Hours: 3 Contact Hours: 4

This course covers the principles and applications of low pressure (15psi or less) boiler operation and construction. Principles and applications of maintenance and safety are also covered in detail. This course also counts toward the overall hours toward taking your low psi boiler operator's license and helps to prepare you to take the test. This course counts for 1,400 hours of the state-required experience hours needed to apply to take the low pressure boiler operator's licensure test.

**Pre-reqs:**



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## Engineering Tech

### Engineering/Applied

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#### **AIT128 HIGH PRESSURE STEAMPLANT OPERT**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **AIT129 STATIONARY STEAMPLANT ENGINEER**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **AIT130 STRUCTURAL MAINTENANCE WELDING**

Credit Hours: 3 Contact Hours: 5

This course will cover safe working procedures of structural/ maintenance welding and the student will lay out and set up various structural welding scenarios using gussets, back plates, and other standard repair implements. They will be supervised for proper form and procedure while performing the required practices in lab. The preparation, cutting and joining of carbon steel (A-36) using oxy/acetylene gas and SMAW (DCEP) electric arc in the flat, horizontal, vertical and overhead positions will also be performed.

**Pre-reqs:**

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#### **AIT131 ELECTRICAL APPLICATIONS SFTY**

Credit Hours: 2 Contact Hours: 2

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:**



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## Engineering Tech

### Engineering/Applied

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#### **AIT132 STATIONARY STEAMPLANT ENGINEER**

Credit Hours: 6 Contact Hours: 8

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

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#### **AIT133 ADV ELECRICL APPS AND SFTY**

Credit Hours: 2 Contact Hours: 2

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

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#### **AIT134 PREDICTIVE MAINTENANCE TECH I**

Credit Hours: 3 Contact Hours: 4

This course is designed to familiarize the student with predictive maintenance technologies in the area of using oil, thermography, vibration, and ultrasonic analyses.

#### **Pre-reqs:**

MST221

And MST125

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#### **AIT135 INDUSTRIAL ROBOTICS**

Credit Hours: 4 Contact Hours: 5

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:**

IET228



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## Engineering Tech

### Engineering/Applied

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#### **AIT136 ALTERNATE ENERGY SOURCES**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **AIT137 CAD/CAM**

Credit Hours: 4 Contact Hours: 5

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

And IET223

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#### **AIT138 ROOT CAUSE ANALYSIS**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **AIT221 ADVANCED CNC PROGRAMMING**

Credit Hours: 3 Contact Hours: 4

This course will cover in great detail all the facets of a CNC lathe as compared with a CNC vertical turning center, as well as a CNC vertical milling machine as compared with a horizontal milling machine. The similarities as well as the differences and the advantages of each machine style will be covered. The details will include the accuracy, ease of operation, and the preventive maintenance required. The different specialized fixturing will be stressed.

#### **Pre-reqs:**

IET223



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## Engineering Tech

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#### AIT221      ADVANCED CNC PROGRAMMING

Credit Hours: 3    Contact Hours: 4

This course will cover in great detail all the facets of a CNC lathe as compared with a CNC vertical turning center, as well as a CNC vertical milling machine as compared with a horizontal milling machine. The similarities as well as the differences and the advantages of each machine style will be covered. The details will include the accuracy, ease of operation, and the preventive maintenance required. The different specialized fixturing will be stressed.

#### Pre-reqs:

Or    ARL121

Or    ARL122

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#### AIT222      PREDICTIVE MAINTENANCE TECH II

Credit Hours: 3    Contact Hours: 4

This course is designed to expand a student's knowledge of predictive maintenance technologies in the areas of oil, thermography, and vibration analyses. The students will then go on to discuss the Root Cause Failure Analysis and how to implement an effective predictive maintenance program.

#### Pre-reqs:

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#### AIT223      ANALS/APPLIC OF WIND TURB ENG Y

Credit Hours: 3    Contact Hours: 3

This course instructs a student in the overall design, analysis, and operation of a wind turbine system. A final project presents a complete design based on real world application.

#### Pre-reqs:

AIT136

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#### AIT224      WIND TURBINE ENERGY SYSTEMS

Credit Hours: 3    Contact Hours: 3

This course provides an in-depth understanding of wind turbines including the service and maintenance of these systems.

#### Pre-reqs:

AIT223



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## Engineering Tech

### Engineering/Applied

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#### **AIT225      ADVANCED CAD/CAM**

Credit Hours: 4    Contact Hours: 5

This course is designed to advance the student's knowledge of Computer Aided Design/Computer Aided Manufacturing CNC programming software.

#### **Pre-reqs:**

AIT137

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#### **AIT226      ROBOTIC VISION**

Credit Hours: 2    Contact Hours: 2

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 to complete a vision task.

#### **Pre-reqs:**

AIT135

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#### **ARL121      CNC LATHE OPERATIONS**

Credit Hours: 3    Contact Hours: 4

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:**

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#### **ARL122      CNC MILL OPERATIONS**

Credit Hours: 3    Contact Hours: 4

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:**



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## Engineering Tech

### Engineering/Applied

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#### ARL123 CNC GRINDING OPERATIONS

Credit Hours: 3 Contact Hours: 4

This Computer Numerical Control course has been designed to help students read, understand and develop the confidence to edit the various programming formats used in standard EIA/ISO, Conversational and Macro types of programming used in various grinding operations. The students will be given the opportunity to apply the information learned from the lecture portion of the course on the grinders available to enter the various Ariel styles of programs into the machine tool control and to develop the ability for the various aspects of OD grinding.

**Pre-reqs:**

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#### ARL124 BASIC METROLOGY

Credit Hours: 3 Contact Hours: 4

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:**

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#### ARL125 METALLURGICAL INSPECTION

Credit Hours: 3 Contact Hours: 4

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:**

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#### ARL126 METALLURGY FOR FERROUS MATL

Credit Hours: 2 Contact Hours: 3

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:**



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## Engineering Tech

### Engineering/Applied

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#### **ARL128      PRECISION GRINDING**

Credit Hours: 3    Contact Hours: 4

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:**

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#### **ARL129      FUNDAMENTAL OF CNC OPERATIONS**

Credit Hours: 3    Contact Hours: 4

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:**

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#### **ARL130      CNC TRNG CTR PROG EIA FORMAT**

Credit Hours: 3    Contact Hours: 4

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:**

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#### **ARL131      CNC MACHING CTR PRG EIA FRMT**

Credit Hours: 3    Contact Hours: 4

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:**





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## Engineering Tech

### Engineering/Applied

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#### **ARL132 CNC TURNING CTR PRG-CONV FRMT**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **ARL133 CNC MACHNG CTR PROG-CONV FRMT**

Credit Hours: 3 Contact Hours: 4

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

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#### **ARL222 ADVANCED CNC OPERATIONS**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **ARL223 MFG CELL LDSHP AND COMMUNIC**

Credit Hours: 3 Contact Hours: 4

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:**



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## Engineering Tech

### Engineering/Applied

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#### **ARL224 MASTER CAM OPERATIONS**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **ENV121 REGULATIONS AND COMPLIANCE**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **ENV123 OSHA 10-HR GEN IND SAFETY**

Credit Hours: 1 Contact Hours: 1

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:**

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#### **ENV124 TRANSP HAZARD MTL TRNG**

Credit Hours: 1 Contact Hours: 1

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

**Pre-reqs:**



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#### ENV125 INTR HAZRDS MTRLS AND WSTE MGT

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV126 HAZWOPER-MODERATE RISK

Credit Hours: 2 Contact Hours: 2

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:**

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#### ENV127 WATER CERTIFICATION EXAM PREP2

Credit Hours: 2 Contact Hours: 2

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:**

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#### ENV128 WASTEWATER CERTIFICTN EXAM PRE

Credit Hours: 2 Contact Hours: 2

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 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:**



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## Engineering Tech

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#### ENV129 WATER/WASTEWATER-PERMITS&ADMIN

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV130 WATER/WASTEWATER-PUMPS, MAINT

Credit Hours: 3 Contact Hours: 3

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:**

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#### ENV131 WASTEWATER TREATMENT I

Credit Hours: 4 Contact Hours: 4

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:**

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#### ENV132 WASTEWATER TREATMENT II

Credit Hours: 4 Contact Hours: 4

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:**



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## Engineering Tech

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#### ENV133 WASTEWATER TREATMENT-INDUSTRL

Credit Hours: 4 Contact Hours: 4

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:**

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#### ENV134 WASTEWATER COLLECTION SYSTEMS

Credit Hours: 4 Contact Hours: 4

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:**

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#### ENV135 WASTEWATER ANALYSIS

Credit Hours: 3 Contact Hours: 3

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:**

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#### ENV136 WATER TREATMENT I

Credit Hours: 4 Contact Hours: 4

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:**



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## Engineering Tech

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#### ENV137 WATER TREATMENT II

Credit Hours: 4 Contact Hours: 4

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:**

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#### ENV138 WATER DISTRIBUTION SYSTEMS

Credit Hours: 4 Contact Hours: 4

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:**

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#### ENV139 WATER ANALYSIS

Credit Hours: 3 Contact Hours: 3

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:**

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#### ENV140 BASIC WATER TRTMT-COAG/FLOC

Credit Hours: 1 Contact Hours: 1

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 audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:**



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#### ENV141 BASIC WATER TRMT-DISINFECTN

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV142 BASIC WATER TRMT-FILTRATION

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV143 BASIC WATER TRMT-FLUORIDATION

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV144 BASIC WATER TRMT-IRON & MANG

Credit Hours: 1 Contact Hours: 1

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:**



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## Engineering Tech

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#### ENV145 BASIC WATER TREATMENT-QUALITY

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV146 BASIC WATER TRTMNT-SEDIMENTATION

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV147 BASC WATR TREATMNT-WATER SOURC

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV148 WATER DISTRN SYS-DISTRIB FAC

Credit Hours: 1 Contact Hours: 1

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:**





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## Engineering Tech

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#### ENV149      WATR DISTBTN SYS-STORAGE SYS

Credit Hours: 1    Contact Hours: 1

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:**

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#### ENV150      WATR DISTRBN SYS-SYS DISINFCTN

Credit Hours: 1    Contact Hours: 1

Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of water disinfection systems. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:**

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#### ENV151      WTR DISTBN SYS-SYSTEM O M

Credit Hours: 1    Contact Hours: 1

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:**

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#### ENV152      WTR DISTRIBUTION SYS-SYS SAFETY

Credit Hours: 1    Contact Hours: 1

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 text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links.

**Pre-reqs:**



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#### ENV153 WTR DISTRBN SYS-VALVES,MAIN ME

Credit Hours: 1 Contact Hours: 1

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 valves, 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:**

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#### ENV154 WATER DISTRIBTN SYS-WATR MAINS

Credit Hours: 1 Contact Hours: 1

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 is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% web-based course.

**Pre-reqs:**

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#### ENV155 WATER DISTRIBTN SYS-WATR QUALT

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV156 WASTEWATER TRTMT-DISINF CHLORN

Credit Hours: 1 Contact Hours: 1

Using the internet, students will explore the rudiments of wastewater 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:**



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#### ENV157 WASTEWATER TRTMT-FIXED FILM PR

Credit Hours: 1 Contact Hours: 1

Using the internet, students will explore the rudiments of wastewater 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:**

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#### ENV158 WASTEWATER TRTMT-PLLUTN CONTRL

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV159 WASTEWATER TRTMNT-POND SYSTMS

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV160 WASTEWATER TRTMT-PRELIMY TRTMT

Credit Hours: 1 Contact Hours: 1

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:**



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#### ENV161 WASTEWATER TRTMT-PRIMARY TRTMT

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV162 WASTEWATER TRTMT-SUSP GRTH SYS

Credit Hours: 1 Contact Hours: 1

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:**

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#### ENV163 WATER/WASTEWATER MATH CHEM

Credit Hours: 2 Contact Hours: 2

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:**

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#### ENV164 SUSTAINABLE GR BLD TECH

Credit Hours: 3 Contact Hours: 3

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:

**Pre-reqs:**



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#### ENV165 OSHA 10 HR CONSTRUCTION SAFETY

Credit Hours: 1 Contact Hours: 1

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.

**Pre-reqs:**

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#### ENV166 LEAD SAFE RENOVATOR

Credit Hours: 1 Contact Hours: 1

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

**Pre-reqs:**

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#### ENV169 RADIATION SAFETY

Credit Hours: 2 Contact Hours: 3

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

**Pre-reqs:**

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#### ENV221 OSHA - 40 HR - HAZWOPER

Credit Hours: 2 Contact Hours: 3

(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:**



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#### ENV222      INDUST PROCES & POLUTION CNTRL

Credit Hours: 3    Contact Hours: 4

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 MTH125

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#### ENV223      BASIC GEOLOGY/HYDROLOGY

Credit Hours: 3    Contact Hours: 4

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:

MTH125

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#### ENV224      AIR SAMPLING-ANA & CONTR

Credit Hours: 3    Contact Hours: 4

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 MTH222



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#### ENV225 SOLID AND HAZ WASTE SMPLG

Credit Hours: 3 Contact Hours: 4

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

And MTH222

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#### ENV226 WATER SAMPLING, ANAL, CONT

Credit Hours: 3 Contact Hours: 4

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, data interpretation and proper reporting methods will be developed.

##### Pre-reqs:

CHM121

Or CHM141

And ENV223

And MTH222

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#### ENV228 HEALTH AND SAFETY

Credit Hours: 3 Contact Hours: 4

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



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## Engineering Tech

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#### **ENV230 OSHA 8-HR HAZWOPER REFRESHER**

Credit Hours: 1 Contact Hours: 1

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:**

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#### **ENV231 OSHA 30 HOUR GENERAL INDUSTRY**

Credit Hours: 2 Contact Hours: 3

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:**

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#### **ENV232 ASBESTOS ABATEMENT WKR INTIAL**

Credit Hours: 2 Contact Hours: 2

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

#### **Pre-reqs:**

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#### **ENV234 ASBESTOS ABATEMENT WKR REFRSH**

Credit Hours: 1 Contact Hours: 1

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

#### **Pre-reqs:**

ENV232





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## Engineering Tech

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#### ENV236 ENV HLTH AND SAFTY SPEC PRJECT

Credit Hours: 3 Contact Hours: 4

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

Or ITD122

And ENV121

And ENV221

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#### EST129 SWITCHGEAR, TRANS, CONTROLS

Credit Hours: 2 Contact Hours: 3

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:

EET120

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#### EST130 ELECTRICAL CIRCUITS/DEV

Credit Hours: 4 Contact Hours: 5

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:

MTH123

Or Test & Score: Compass Algebra - 055

Or Test & Score: ACT Math - 22



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#### **EST132 FUNDAMENTAL OF ELECTRICITY**

Credit Hours: 4 Contact Hours: 5

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:**

MTH101

Or MTH103

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### **EST133 DIGITAL LOGIC FUNDAMENTALS**

Credit Hours: 4 Contact Hours: 5

This course covers the fundamentals of digital logic circuits. Topics include number systems, logic gates, Boolean algebra, logic simplification, karnaugh maps, adders, multipliers, multiplexers and decoders. Elementary digital circuits including flip-flops, counters, shift registers, memory devices, programmable logic devices and integrated circuits are also covered.

#### **Pre-reqs:**

EST132

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#### **EST134 PROGRAMMABLE CONTROLLER FNDMTL**

Credit Hours: 4 Contact Hours: 5

A study of programmable controllers emphasizing program development, logic development and troubleshooting. Emphasis on relays, timers, counters, integer math and scan-dependent programming. Factory floor control concepts are stressed.

#### **Pre-reqs:**

EST133



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## Engineering Tech

### Engineering/Applied

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#### **EST221 ELECTRONIC TBLSHOOTING**

Credit Hours: 3 Contact Hours: 4

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

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#### **ETD225 SPECIAL TOPICS**

Credit Hours: 1 Contact Hours: 1

Special topics in Engineering, Industrial, and Emerging Technologies Division.

#### **Pre-reqs:**

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#### **ETD226 SPECIAL TOPICS**

Credit Hours: 2 Contact Hours: 0

Special topics in Engineering, Industrial, and Emerging Technologies Division.

#### **Pre-reqs:**

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#### **ETD227 SPECIAL TOPICS**

Credit Hours: 3 Contact Hours: 3

Special topics in Engineering, Industrial, and Emerging Technologies Division.

#### **Pre-reqs:**



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## Engineering Tech

### Engineering/Applied

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#### ETD228 SPECIAL TOPICS

Credit Hours: 4 Contact Hours: 4

Special topics in Engineering, Industrial, and Emerging Technologies Division.

**Pre-reqs:**

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#### ETD229 SPECIAL TOPICS

Credit Hours: 5 Contact Hours: 5

Special topics in Engineering, Industrial, and Emerging Technologies Division.

**Pre-reqs:**

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#### EUT121 OVERHEAD LINE TECHNOLOGY I

Credit Hours: 6 Contact Hours: 10

Provides the knowledge and skill to perform work on secondary voltage circuits; understanding of the techniques used to install transmission support systems, transformers and install anchors safely and efficiently with concentration on the installation of services, street lighting and secondary circuits. Included are advanced training pertaining to the various transmission support system framing techniques and guying methods. An overview of transmission and distribution of electrical systems, Occupational Safety and Health Administration (OSHA) and rigging safety awareness requirements will be included in this course.

**Pre-reqs:**

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#### EUT122 OVERHEAD LINE TECHNOLOGY II

Credit Hours: 6 Contact Hours: 10

Provides the knowledge to safely and properly install three phase primary conductors; to operate transmission line installation equipment; to safely install and operate line fuses, reclosers, transformer power banks, capacitors and line voltage regulators; to identify, install and maintain underground residential distribution secondary equipment. The safe and proper methods to install box pads, single-phase transformers, primary elbows and terminators, and safety requirements will be included throughout the course of instruction.

**Pre-reqs:**

EUT121



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## Engineering Tech

### Engineering/Applied

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#### EUT123 SUBSTATION TECHNOLOGY I

Credit Hours: 6 Contact Hours: 10

Provides the knowledge and skills to perform maintenance in electrical substation and switchyards; understand and apply the proper techniques to operate power, power and hydraulic actuated tools, as applied to conduit forming and cable tray layouts. Included is advanced training in the operation of substation ground maintenance vehicles; rigging and construction of substation and switchyard facilities. Occupational Safety and Health Administration (OSHA) and rigging safety awareness requirements will be included in this course.

#### Pre-reqs:

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#### EUT124 SUBSTATION TECHNOLOGY II

Credit Hours: 6 Contact Hours: 10

Provides the knowledge and skill to safely perform maintenance in electrical substation and switchyards; understand and apply the proper cable pulling/bus work techniques; installation of substation conductors/wire, switches and grounding techniques. Included is advanced electrical skills training, as applicable to the use and installation of batteries, fuses, transformers, regulators/reclosers, circuit breakers, and capacitors within the substation. The proper lockout/tagout techniques and principle will be included in this course.

#### Pre-reqs:

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#### EUT221 OVERHEAD LINE TECHNOLOGY III

Credit Hours: 6 Contact Hours: 10

Provides the knowledge and skill to identify, install and maintain primary underground residential distribution (URD) equipment; knowledge pertaining to the different styles of sub-transmission support structures, with instruction on the techniques and proper use of hot-line tools to work sub-transmission & distribution structures when laying out conductors and changing various insulators; knowledge and skill to safely perform rubber gloving assignments using the insulate and isolate techniques. Various methods of troubleshooting URD primary and secondary circuits are discussed and demonstrated. Students will perform various tasks, while working on an energized three-phase circuit

#### Pre-reqs:

EUT122

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#### EUT222 OVERHEAD LINE TECHNOLOGY IV

Credit Hours: 7 Contact Hours: 12

Provides the skills to safely climb transmission support towers and H-structures to achieve the qualified status. Upon qualification, the student will obtain the basic skills to perform intermediate tasks while aloft on these pertinent structures. The student will gain an understanding of substation equipment and one line drawings. Emphasis will be placed on recognizing energized equipment, minimum approach distances and substation safety. At the conclusion of the course, the student will be qualified to enter a substation. Included in this course of instruction are: Lockout/Tagout, Master Drive, Topical Safety, Comprehensive Skills Review and a Safety Fair.

#### Pre-reqs:

EUT221



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## Engineering Tech

### Engineering/Applied

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#### EUT224 SUBSTATION TECHNOLOGY III

Credit Hours: 6 Contact Hours: 10

The outcome of this intermediate course is electrical skills training, as applicable to the use and installation/maintenance of batteries, fuses, transformers, regulators according to Substation Preferred Practices. It also provides the knowledge and skill to safely perform maintenance in electrical substation and switchyards; understand and apply the proper cable pulling/bus work techniques; installation of substation conductors/wire, switches and grounding techniques. An in-depth study and practice of lockout-tagout procedures is applied. The daily maintenance procedures are honed for substation power transformers; such as TTR testing, TCG/O2 testing, oil

#### Pre-reqs:

EUT124

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#### EUT225 SUBSTATION TECHNOLOGY IV

Credit Hours: 7 Contact Hours: 12

This course provides advanced knowledge and skills to safely perform high level-maintenance in electrical substation and switchyards; understand and apply the proper cable pulling/bus work techniques; installation of substation conductors/wire, switches and grounding techniques. Included are advanced electrical skills training, as applicable to the use and installation of batteries, fuses, transformers, regulators/reclosers, circuit breakers, and capacitors within-depth study of Fault/Load Interrupting equipment is accomplished. Complete inspection of Oil Circuit Breakers; which includes, Circuit Profilers training, Circuit Breaker control schemes, Circuit Breaker Time Travel Characteristics and

#### Pre-reqs:

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#### HVC121 HVAC PRINCIPLES I

Credit Hours: 3 Contact Hours: 4

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:

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#### HVC122 HVAC PRINCIPLES II

Credit Hours: 3 Contact Hours: 4

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



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## Engineering Tech

### Engineering/Applied

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#### **HVC123 SHEET METAL LAYOUT I**

Credit Hours: 3 Contact Hours: 4

This course covers layout and forming of basic sheet metal fittings using drawing equipment and construction paper. Topics include square/round ductwork, taps, transitions and offsets.

**Pre-reqs:**

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#### **HVC124 MOBILE CAB CLIMATE CNTL SYS/AP**

Credit Hours: 2 Contact Hours: 3

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:**

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#### **HVC221 HVAC FURNACE COMBUSTION PRINC**

Credit Hours: 2 Contact Hours: 2

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:**

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#### **HVC222 HVAC DESIGN & APPLICATION**

Credit Hours: 3 Contact Hours: 4

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



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## Engineering Tech

### Engineering/Applied

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#### **HVC223 HVAC SYS OPER AND TRBLSHT- HT**

Credit Hours: 3 Contact Hours: 4

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

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#### **HVC224 HVAC SYS OP AND TRBLST- COOLNG**

Credit Hours: 3 Contact Hours: 4

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

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#### **HVC226 SHEET METAL LAYOUT II**

Credit Hours: 3 Contact Hours: 4

Covers layout, forming and fabrication of basic sheet metal ductwork fittings and use of equipment to accomplish these tasks. Topics include: the fabrication of square/round sheet metal ductwork, tapers, transitions, and offsets; the development of geometrical elements of structures, their intersections by the radial line, and triangulation methods of sheet metal layout.

#### **Pre-reqs:**

MST132

Or HVC123

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#### **HVC227 HVAC FIELD INSTALL TECH PROC**

Credit Hours: 4 Contact Hours: 5

Laboratory intensive introduction to air conditioning system field installation techniques and procedures.

#### **Pre-reqs:**

HVC122

Can be Taken Concurrently





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## Engineering Tech

### Engineering/Applied

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#### **HVC228 HVAC SYS AIRFLOW DUCT SIZING**

Credit Hours: 1 Contact Hours: 1

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:**

MTH101

Or MTH103

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### **HVC229 AIR CONDITNING REFRIG CYCLE**

Credit Hours: 1 Contact Hours: 1

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:**

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#### **HVC230 HVAC RESIDENTIAL EQUIP SIZING**

Credit Hours: 1 Contact Hours: 1

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:**



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## Engineering Tech

### Engineering/Applied

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#### **HVC231 HVAC MOTORS AND COMPRESSORS**

Credit Hours: 1 Contact Hours: 1

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:**

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#### **HVC232 ADVANCED HVAC APP CONTROLS**

Credit Hours: 3 Contact Hours: 4

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

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#### **HVC233 HVAC BID SPECIFICATION**

Credit Hours: 3 Contact Hours: 4

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

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#### **HVC234 HVAC ELECTRICAL SYS & APPLIC**

Credit Hours: 3 Contact Hours: 4

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:**

MTH101



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## Engineering Tech

### Engineering/Applied

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#### **HVC234 HVAC ELECTRICAL SYS & APPLIC**

Credit Hours: 3 Contact Hours: 4

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 MTH103

And HVC121

Can be Taken Concurrently

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### **HVC235 REFRIGERATION**

Credit Hours: 3 Contact Hours: 4

A basic understanding of mechanical refrigeration from safety to cryogenics is presented. The refrigeration cycle, components, controls, in instrumentation, installation, servicing, and troubleshooting are studied. Various components including the compressor, condenser, filter-dryer, and refrigeration controls are studied in detail

##### **Pre-reqs:**

HVC122

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#### **HVC236 ADV HVAC ELECTRICAL APPLIC**

Credit Hours: 3 Contact Hours: 4

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



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## Engineering Tech

### Engineering/Applied

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#### **HVC237 HVAC COMMERCIAL CONTROLS**

Credit Hours: 3 Contact Hours: 4

This course will further the students knowledge of control by introducing the student to the equipment and devices that control HVAC commercial equipment, pneuematics, and Direct Digital Controls. The lectures/labs will discuss the function, operation, service, and how to troubleshoot the controls.

#### **Pre-reqs:**

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#### **HVC238 CHILLER OPERATIONS**

Credit Hours: 3 Contact Hours: 4

This course will discuss the specifics of the operation of chillers. The lectures will include small 25 ton unites to large commercial 500 ton chillers. Including installation of the units, service and general maintenance, and troubleshooting and repair. The course will cover how to locate the problems and how to safely manage repairs working with large pieces of equipment.

#### **Pre-reqs:**

HVC122

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#### **IET121 INDUSTRIAL MANAGEMENT CONCEPTS**

Credit Hours: 2 Contact Hours: 2

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:**

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#### **IET223 COMPUTER NUMERICAL CTRL**

Credit Hours: 4 Contact Hours: 6

The milling section provides an introduction to part programming for the vertical axis milling machine. The lathe section provides an introduction to programming a computer-numerical controlled lathe. The CAM section provides an introduction to automated programming through the use of the computer.

#### **Pre-reqs:**



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## Engineering Tech

### Engineering/Applied

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#### IET228 INTRO TO ROBOTICS

Credit Hours: 2 Contact Hours: 2

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:

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#### IET270 DIM METROLOGY AND INSPECT I

Credit Hours: 3 Contact Hours: 3

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:

MTH101

Or MTH103

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### MST121 BLUEPRINT READING

Credit Hours: 2 Contact Hours: 3

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, although freehand sketching is included. Types of prints covered include sheet metal, building, piping, hydraulic and electrical.

#### Pre-reqs:



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## Engineering Tech

### Engineering/Applied

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#### **MST122      HYDRAULC AND PNEUMATIC PRI**

Credit Hours: 3    Contact Hours: 4

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:**

MTH103

Or MTH101

And MST123

Can be Taken Concurrently

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### **MST123      HYDRAULC AND PNEUMATIC APP**

Credit Hours: 3    Contact Hours: 4

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:**

MTH101

Or MTH103

And MST122

Can be Taken Concurrently

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### **MST124      FURNACE COMBUSTION PRINC**

Credit Hours: 1    Contact Hours: 1.1

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:**



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## Engineering Tech

### Engineering/Applied

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#### **MST125 BASIC PUMPS**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **MST127 PRINCIPLES OF WELDING**

Credit Hours: 3 Contact Hours: 3

Instruction in preparation, cutting, and joining similar and dissimilar metals by welding using gas or electrical processes. Oxygen/acetylene and AC/DC electric are the major techniques used, but other processes will be reviewed.

#### **Pre-reqs:**

MST128

Can be Taken Concurrently

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#### **MST128 WELDING LAB**

Credit Hours: 3 Contact Hours: 6

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

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#### **MST130 ELEMENTS OF MICROPROCESS**

Credit Hours: 4 Contact Hours: 3

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



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## Engineering Tech

### Engineering/Applied

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#### **MST131      STATS PROCESS CTRL CHART**

Credit Hours: 2    Contact Hours: 2

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:**

MTH101

Or MTH103

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### **MST133      PRESS WORKING FUNDAMENTALS**

Credit Hours: 2    Contact Hours: 4

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:**

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#### **MST134      HYDRAULIC AND PNEUMATIC SYS**

Credit Hours: 6    Contact Hours: 8

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:**

MTH101

Can be Taken Concurrently

Or MTH103

Can be Taken Concurrently

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20





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## Engineering Tech

### Engineering/Applied

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#### **MST135 PLUMBNG AND PIPE CODE PRINCIPLE**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **MST136 3G WLDG CERT EXAM PREP**

Credit Hours: 2 Contact Hours: 3

This course will study the fit-up and joining of various schedules of pipes in all positions. The pipe 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 destructive tests per American Petroleum Institute (API) and American Society of Mechanical Engineers (ASME) codes.

#### **Pre-reqs:**

MST127

And MST128

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#### **MST137 6G WLDG CERT EXAM PREP**

Credit Hours: 5 Contact Hours: 6

This course will cover: the fit-up and welding of pipe in 5G and 6G positions (uphill) using the SMAW process, the welding of root and hot pass methods done with E-6010 electrodes, and the fill and cap pass using E-7018 electrodes. Students will perform destructive tests per American Society of Mechanical Engineers (ASME) Section IX Boiler and Pressure Vessel Code.

#### **Pre-reqs:**

MST127

And MST128

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#### **MST138 PREP GAS TUNGSTEN ARC WLDG**

Credit Hours: 5 Contact Hours: 6

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:**



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## Engineering Tech

### Engineering/Applied

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#### **MST138      PREP GAS TUNGSTEN ARC WLDG**

Credit Hours: 5    Contact Hours: 6

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

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#### **MST139      GAS TUNGSTEN ARC WLDG TITAN**

Credit Hours: 3    Contact Hours: 5

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

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#### **MST221      MECHANICAL DRIVE COMPON**

Credit Hours: 3    Contact Hours: 4

The study of bearings, shafts, couplings, cams, brakes, gear drives, belt drives, chain drives and clutches. Included are component application and maintenance.

#### **Pre-reqs:**

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#### **MST223      HYDRAULC AND PNEUMATC ELEC**

Credit Hours: 2    Contact Hours: 2

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:**



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## Engineering Tech

### Engineering/Applied

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#### **MST224      DIMENSIONAL METROLOGY**

Credit Hours: 2   Contact Hours: 3

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:**

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#### **MST225      DC CRANE CONTROL**

Credit Hours: 1   Contact Hours: 1

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:**

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#### **MST226      TUNGSTEN INERT GAS WELD**

Credit Hours: 3   Contact Hours: 5

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:**

MST128

And MST127

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#### **MST227      METALLIC INERT GAS WELD**

Credit Hours: 3   Contact Hours: 5

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



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## Engineering Tech

### Engineering/Applied

#### **MST227 METALLIC INERT GAS WELD**

Credit Hours: 3 Contact Hours: 5

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:**

And MST128

#### **MST228 SHIELDED METAL ARC I**

Credit Hours: 3 Contact Hours: 5

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 Independent Study

#### **ETD201 ENG INDEPENDENT STUDY**

Credit Hours: 1 Contact Hours: 10

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

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 Tech

### Engineering Independent Study

#### **ETD203      ENG INDEPENDENT STUDY**

Credit Hours: 3    Contact Hours: 30

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:**

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#### **ETD223      ENGINEERING CO-OP**

Credit Hours: 3    Contact Hours: 30

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:**

## Information Tech

### Administrative Srv Off Appl

#### **AOT101      ALPHANUMERIC KEYBOARDING**

Credit Hours: 1    Contact Hours: 1

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:**

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#### **AOT102      COMPUTER APPLICATIONS-WORD**

Credit Hours: 1    Contact Hours: 1

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:**



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#### **AOT102      COMPUTER APPLICATIONS-WORD**

Credit Hours: 1    Contact Hours: 1

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:**

AOT100

Or OAD100

Or IDS120

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#### **AOT104      COMPUTER APP-POWERPOINT**

Credit Hours: 1    Contact Hours: 1

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:**

AOT100

Or OAD100

Or IDS120

Or ITD100

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#### **AOT105      COMPUTER APPL-EXCEL**

Credit Hours: 1    Contact Hours: 1

This course covers the use, styles and features of graphic presentation programs. Upon completion, students should be able to utilize MS Excel as a basic business tool.

#### **Pre-reqs:**

AOT100

Or OAD100

Or IDS120

Or ITD100

Or ITD100



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#### AOT106 COMPUTER APPL-ACCESS

Credit Hours: 1 Contact Hours: 1

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:

AOT100

Or OAD100

Or IDS120

Or ITD100

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#### AOT107 DIGITAL TECHNOLOGIES

Credit Hours: 1 Contact Hours: 1

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:

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#### AOT108 MS OUTLOOK

Credit Hours: 1 Contact Hours: 1

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:



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#### AOT121 KEYBOARDING/FORMATting

Credit Hours: 3 Contact Hours: 4

This course is designed to refine the fundamentals of "touch" control of the keyboard and proper keyboarding techniques. KNOWLEDGE OF KEYBOARDING IS REQUIRED. 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:

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#### AOT127 WP-MICROSOFT WORD

Credit Hours: 3 Contact Hours: 4

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:

AOT121

And ITD122

Or BCA120

Or BCA220

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#### AOT128 DPT-MICROSOFT PUBLISHER

Credit Hours: 3 Contact Hours: 4

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:

BCA120

Or ITD122

And IMT122

Or CAP120





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#### **AOT129 KEYBOARDING/SKILLBUILDING**

Credit Hours: 1 Contact Hours: 1

This course is designed to give students an opportunity to further develop and refine keyboarding skills. Emphasis on drill work is to improve keyboarding speed and accuracy on a microcomputer. Upon completion, students should be able to diagnose their specific areas of weakness on the keyboard and improve both speed and accuracy.

#### **Pre-reqs:**

AOT121

Or OAD121

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#### **AOT130 COMM AND TRANSCRIPT SKILLS**

Credit Hours: 3 Contact Hours: 3

This course emphasizes the elements of written communication and proofreading techniques for the transcription and preparation of business documents. Upon completion, students should be able to use proper grammar, punctuation, and proofreading skills in written and oral communications

#### **Pre-reqs:**

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#### **AOT132 RECORDS MANAGEMENT**

Credit Hours: 3 Contact Hours: 4

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. Upon completion, students should be able to demonstrate an understanding of the components of a records management program and competence in applying the generally accepted standard filing rules.

#### **Pre-reqs:**

IDS102

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080



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#### **AOT134 FORM DESIGN ESSENTIALS**

Credit Hours: 1 Contact Hours: 2

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:**

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#### **AOT224 LEGAL OFFICE PROCEDURES**

Credit Hours: 3 Contact Hours: 4

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:**

AOT121

Or OAD121

And AOT130

Or OAD130

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#### **AOT226 SHRSHEET MICROSOFT EXCEL**

Credit Hours: 3 Contact Hours: 4

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:**

BCA120

Or BCA220

Or ITD122



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#### **AOT227      ADMIN PROCEDURES AND SYSTEMS**

Credit Hours: 3    Contact Hours: 4

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 ITD122

And AOT130

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#### **AOT232      AOT PRACTICUM**

Credit Hours: 3    Contact Hours: 3

Students work a total of 60 hours for businesses outside 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:**

AOT226

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#### **AOT234      ADMIN INFO SPECIAL TOPICS**

Credit Hours: 2    Contact Hours: 2

Selected topics on areas of interest to Administrative Information Technologies majors through seminar meetings and/or individualized research. Upon completion, students should be knowledgeable in current trends and issues in office administration technology.

#### **Pre-reqs:**



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#### **AOT235      LEGAL RESEARCH AND WRITING**

Credit Hours: 3    Contact Hours: 4

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:**

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#### **AOT236      DB APP MICROSOFT ACCESS**

Credit Hours: 3    Contact Hours: 4

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:**

BCA120

Or    BCA220

Or    ITD122

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#### **AOT237      LEGAL OFFICE APPLICATIONS**

Credit Hours: 3    Contact Hours: 4

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:**

AOT224

Or    OAD224

And    AOT239

Or    OAD239



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#### **AOT238 WEB DESIGN FOR OFFICE PROF**

Credit Hours: 3 Contact Hours: 4

This course covers the concepts, design and application of web page publishing using Microsoft Front Page. Students will produce web pages by combining text, graphics and scanned images. Upon completion, students will be able to design and produce professional web pages using advanced publishing features.

#### **Pre-reqs:**

BCA120

Or ITD122

And IMT122

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#### **AOT239 LEGAL TRANSCRIPTION**

Credit Hours: 3 Contact Hours: 4

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:**

AOT130

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#### **IRT121 REALTIME THEORY I**

Credit Hours: 4 Contact Hours: 8

Introduces to stenotype machine theory and technique with instruction in writing the spoken word and punctuation by means of a realtime translation theory. Emphasis on recording, notereading, and transcribing practice in preparation for more advanced courses in machine reporting. Students will learn realtime theory with instruction focused on the use of electronic media and/or realtime technology and teacher interaction. Upon completion, students should be able to write the theory learned in RT Theory I.

#### **Pre-reqs:**

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#### **IRT122 REALTIME THEORY II**

Credit Hours: 4 Contact Hours: 8

Mastery of stenotype machine theory and technique with instruction in writing the spoken word with punctuation by means of a realtime translation theory. Instruction and practice to develop recording, notereading, and typewritten transcription skills, as well as mastery of realtime electronic shorthand in preparation for more advanced courses in the Information Reporting Technology program. Theory instruction will focus on the use of electronic media and/or realtime technology and teacher interaction. Upon completion, students should be able to write the spoken word with punctuation by means of a conflict-free reporting theory as approved by NCRA to provide instantaneous translation.

#### **Pre-reqs:**



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#### IRT122 REALTIME THEORY II

Credit Hours: 4 Contact Hours: 8

Mastery of stenotype machine theory and technique with instruction in writing the spoken word with punctuation by means of a realtime translation theory. Instruction and practice to develop recording, notereading, and typewritten transcription skills, as well as mastery of realtime electronic shorthand in preparation for more advanced courses in the Information Reporting Technology program. Theory instruction will focus on the use of electronic media and/or realtime technology and teacher interaction. Upon completion, students should be able to write the spoken word with punctuation by means of a conflict-free reporting theory as approved by NCRA to provide instantaneous translation.

##### Pre-reqs:

CCR121

Or IRT121

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#### IRT123 SPEEDBUILDING III

Credit Hours: 4 Contact Hours: 8

A required lab for skill development refining techniques necessary for perfecting speed and accuracy in transcription of specialized dictation material. Student will be expected to complete weekly activities, practice realtime/captioning on stenograph machine, and use electronic media and/or realtime transcription technology. This course is designed for self-paced modular instruction. This lab is designed to prepare students to write graduation speed requirements for options in the Information Reporting Technology program: For the Judicial Reporting Option, transcribe a minimum of three five-minute, two-voice testimony tests with a minimum of 95% accuracy dictated at a minimum speed of 225

##### Pre-reqs:

CCR130

Or IRT130

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#### IRT129 SPEED BUILDING I

Credit Hours: 4 Contact Hours: 8

Designed to increase speed, endurance and accuracy for reporting of multi-voice testimony, jury charge, and legal and technical material. A machine speed of 130 wpm is the goal. Emphasis on development of vocabulary, grammar, punctuation, note reading and realtime writing skills. Instruction shall include the use of online, computer-aided transcription technology with teacher interaction. The course is designed for self-paced modular instruction and shall incorporate the use of Web-enhanced instruction. Upon completion of each module, students should progress to the next module/speed throughout the program.

##### Pre-reqs:

IRT122

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#### IRT130 SPEED BUILDING II

Credit Hours: 4 Contact Hours: 8

Designed to increase speed, endurance and accuracy for reporting of multi-voice testimony, jury charge, legal and technical material. A machine speed of 175 wpm is the goal. Emphasis on development of vocabulary, grammar, punctuation, note reading and realtime writing skills. Instruction will include the use of online, computer-aided transcription technology with teacher interaction. The course is designed for self-paced modular instruction and will incorporate the use of Web-enhanced instruction. Upon completion of each module, students should progress to the next module/speed throughout the program.

##### Pre-reqs:



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## Information Tech

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#### IRT130 SPEED BUILDING II

Credit Hours: 4 Contact Hours: 8

Designed to increase speed, endurance and accuracy for reporting of multi-voice testimony, jury charge, legal and technical material. A machine speed of 175 wpm is the goal. Emphasis on development of vocabulary, grammar, punctuation, note reading and realtime writing skills. Instruction will include the use of online, computer-aided transcription technology with teacher interaction. The course is designed for self-paced modular instruction and will incorporate the use of Web-enhanced instruction. Upon completion of each module, students should progress to the next module/speed throughout the program.

#### Pre-reqs:

CCR129

Or IRT129

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#### IRT131 LEGAL TERMINOLOGY

Credit Hours: 3 Contact Hours: 4

Instruction in legal terminology in civil law; criminal; and the discovery, trial, and appellate processes. Upon completion, students should be able to comprehend, appreciate, and use legal terms.

#### Pre-reqs:

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#### IRT133 THEORY FOR SCOPISTS

Credit Hours: 3 Contact Hours: 4

Students will learn realtime electronic shorthand with instruction utilizing online, computer-aided transcription technology, with emphasis on note reading, editing, and transcribing practice in preparation for more advanced courses in information reporting. Upon completion, the student should be able to read, translate, and edit computer-generated machine shorthand notes taken by court reporters for transcript production.

#### Pre-reqs:

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#### IRT228 REALTIME TRANSCRIPTION

Credit Hours: 3 Contact Hours: 4

Realtime transcription training using realtime computer equipment to practice and perfect specialized transcription skills in legal, medical, media, and education. The transcription training will be specific to the students' choice of career option. Upon completion, students should be able to proficiently transcribe and format documents.

#### Pre-reqs:

BIO125



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#### IRT228 REALTIME TRANSCRIPTION

Credit Hours: 3 Contact Hours: 4

Realtime transcription training using realtime computer equipment to practice and perfect specialized transcription skills in legal, medical, media, and education. The transcription training will be specific to the students' choice of career option. Upon completion, students should be able to proficiently transcribe and format documents.

##### Pre-reqs:

And IRT129

Or CCR129

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#### IRT229 REALTIME SOFTWARE APPLICATIONS

Credit Hours: 3 Contact Hours: 4

Instruction in operating realtime court reporting software for the production of the legal transcript. Students are taught the process of recording verbatim testimony via a computerized steno machine; reading, translating, and editing the verbatim testimony to produce the legal transcript; file maintenance; dictionary building; EZ keys; globalizing entries. Upon completion, students should be able to demonstrate knowledge and skills in operating and utilizing the different aspects of the realtime court reporting software.

##### Pre-reqs:

IRT121

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#### IRT230 BASIC BROADCAST CAPTIONING

Credit Hours: 3 Contact Hours: 4

This course is designed to teach students the basics of broadcast captioning. The students will be evaluating their writing skills for captioning, learning captioning style guidelines, creating and managing captioning dictionaries, and the basic formats for writing news, sports, weather, and other broadcasts. Upon completion, students should be able to demonstrate knowledge of realtime/caption production.

##### Pre-reqs:

CCR122

Or IRT122

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#### IRT231 JUDICIAL PROCEDURES

Credit Hours: 3 Contact Hours: 4

Introduction to the responsibilities of the judicial reporter in the court system and the freelance environment; legal procedures; reporting techniques; and realtime reporting. Instruction in transcript production; court and transcript forms; researching for transcript production; marking and maintaining exhibits; realtime reporting in a deposition and court environment; the profession and related job opportunities; ethics, including the distribution of the NCRA Code of Professional Ethics; and professional associations. Upon completion, students should be able to demonstrate knowledge in all areas of the responsibilities of the judicial reporter.

##### Pre-reqs:





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#### IRT231 JUDICIAL PROCEDURES

Credit Hours: 3 Contact Hours: 4

Introduction to the responsibilities of the judicial reporter in the court system and the freelance environment; legal procedures; reporting techniques; and realtime reporting. Instruction in transcript production; court and transcript forms; researching for transcript production; marking and maintaining exhibits; realtime reporting in a deposition and court environment; the profession and related job opportunities; ethics, including the distribution of the NCRA Code of Professional Ethics; and professional associations. Upon completion, students should be able to demonstrate knowledge in all areas of the responsibilities of the judicial reporter.

##### Pre-reqs:

IRT122

Or IRT133

And IRT229

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#### IRT232 INFORMATION REPRTING INTRNSHP

Credit Hours: 2 Contact Hours: 1

The following criteria must be met for each option in the IRT program:

Judicial Option: Internship shall include a minimum of 40 verified hours of actual writing time under the supervision of a practicing reporter using machine steno technology. Specific graduation requirements must be passed for the Judicial Option: Transcribe a minimum of three five-minute, two-voice testimony tests with a minimum of 95% accuracy dictated at a minimum speed of 225 wpm; transcribe a minimum of three five-minute jury charge tests with a minimum

##### Pre-reqs:

CCR130

Or IRT130

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#### IRT233 TRANS & EDITING FOR SCOPISTS

Credit Hours: 3 Contact Hours: 4

Students will learn transcription, editing, and research skills specific to the scopist/reporting profession. Instruction utilizing online, computer-aided transcription technology, with emphasis on note reading, translating and editing skills, grammar and proofreading skills, and globalizing steno entries. Upon completion, student should be able to read, translate, edit, globalize steno outlines, and print for transcription production.

##### Pre-reqs:

IRT133

Or IRT122

And IRT229

And IRT231



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#### **IRT235      ADVANCED BROADCAST CAPTIONING**

Credit Hours: 3    Contact Hours: 4

This course is designed to teach students in-depth realtime/caption skills. Topics include how to research specific shows, development and management of specific captioning dictionaries, advanced instruction on captioning style guidelines, utilizing specialized captioning software for reporting in broadcast environments. Upon completion, students should be able to demonstrate realtime/caption production.

#### **Pre-reqs:**

CCR230

Or IRT230

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#### **IRT240      SHORT WRITING TECHNIQUES**

Credit Hours: 3    Contact Hours: 4

Using an NCRA approved realtime theory, students will focus on shortening their writing techniques in order to build up to graduation speeds. Students will learn and review short writing techniques through lecture, text, and dictation. The instructor will reinforce short writing skills for the judicial and broadcast captioning fields through the use of text, reading and writing lessons, translating, testing, and dictation. Upon completion, students should be able to successfully use short writing techniques without hesitation for the judicial and captioning field.

#### **Pre-reqs:**

IRT122

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#### **IRT241      RPR WRITTEN KNOWLEDGE PREP**

Credit Hours: 1    Contact Hours: 2

This course will prepare students for the national written knowledge examination to become an RPR (Registered Professional Reporter). The RPR exam tests students on their knowledge, skills, and ability to produce a high-quality verbatim record. This course will focus on preparing students in those skills as well as four other areas: reporting procedures, transcript production, operating practices, and professional issues and continuing education.

#### **Pre-reqs:**

IRT231

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#### **ITD100      COMPUTER APP-WIND & CONCPPTS**

Credit Hours: 1    Contact Hours: 1

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:**



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#### ITD122 COMPUTER APP FOR PROFESSNL

Credit Hours: 3 Contact Hours: 4

Computer Applications for Professionals describes the components and peripherals of a computer/PC and how they function and communicate as a system. Principle topics covered are the Windows operating system, Internet applications, the Windows networking environment and a variety of software application packages used to solve scientific, business, and engineering technology problems.

#### Pre-reqs:

#### ITD123 MAC CONCEPTS

Credit Hours: 1 Contact Hours: 2

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:

#### ITD220 ADV COMPT APP FOR PROF

Credit Hours: 3 Contact Hours: 4

Advanced Computer Applications for Professionals will explore the more advanced features in MS Office using an integrated, project-based approach. Students will analyze and solve business financial problems using Excel; organize, manipulate, and prepare reports on business data using Access; prepare effective communications using advanced Word features; and, prepare and present to the class a major-specific PowerPoint presentation on emerging technologies and their impact on their area of study. Case studies and projects will be customized to the individual student's area of study.

#### Pre-reqs:

ITD122

Or BCA120

Or ECA122

### Computer Science



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## Information Tech

### Computer Science

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#### **CSE121 MOBILE DEVELOP ARCHITECTURE**

Credit Hours: 3 Contact Hours: 4

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:**

ECA127

Can be Taken Concurrently

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#### **CSE221 ANDROID DEVELOPMENT 1**

Credit Hours: 3 Contact Hours: 4

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:**

ECA223

And CSE121

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#### **CSE222 IOS DEVELOPMENT I**

Credit Hours: 3 Contact Hours: 4

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

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#### **CSE223 IOS DEVELOPMENT 2**

Credit Hours: 3 Contact Hours: 4

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



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### Computer Science

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#### **CSE224      ANDROID DEVELOPMENT 2**

Credit Hours: 3    Contact Hours: 4

This course covers advanced mobile applications for the Google Android development. Android best practices will be discussed along with other in-depth Android programming topics. Upon completion of this course, students will demonstrate the ability to create advanced Android applications and the ability to package the applications for deployment in the Android marketplace.

#### **Pre-reqs:**

CSE221

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#### **CSE225      CROSS-PLATFORM MOB APP DEV**

Credit Hours: 3    Contact Hours: 4

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:**

ECA234

And ECA225

And CSE221

And CSE222

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#### **ECA120      INTRO TO PROGRAMMING LOGIC**

Credit Hours: 3    Contact Hours: 4

This course is intended to thoroughly teach the principles of programming logic and procedural coding while reinforcing lessons in programming. Lessons will include logical flow, pseudocode, and the concepts of programming and structured system design. A good portion of this course is devoted to control structures including IF-THEN-ELSE-, DO-WHILE, CASE, and DO-UNTIL. The students will also learn about Object-Oriented Programming Concepts and Principles.

#### **Pre-reqs:**

IDS101

Or    Test & Score: Compass Reading - 066

Or    Test & Score: ACT Reading - 14

Or    Test & Score: ACT Composite - 22



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## Information Tech

### Computer Science

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#### ECA127 PROGRAMMING LOGIC & PROB SOLV

Credit Hours: 3 Contact Hours: 4

This course addresses the student 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, the student should have an understanding of how to develop the logic to solve a programming solution using structured flowcharts and psuedocode.

##### Pre-reqs:

IDS101

Or Test & Score: Compass Reading - 066

Or Test & Score: ACT Reading - 14

And MTH101

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### ECA127A PROGRAMMNG LOGIC & PROB SOLV A

Credit Hours: 1.5 Contact Hours: 2

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:

IDS101

Or Test & Score: Compass Reading - 066

Or Test & Score: ACT Reading - 14

And Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### ECA127B PROGRAMMNG LOGIC & PROB SOLV B

Credit Hours: 1.5 Contact Hours: 2

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:

ECA127A



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## Information Tech

### Computer Science

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#### **ECA128 VISUAL BASIC DEVELOPMENT**

Credit Hours: 3 Contact Hours: 4

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:**

ECA127

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#### **ECA132 HELP DESK AND COMP SUP CONCEPT**

Credit Hours: 3 Contact Hours: 4

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:**

IDS101

Or Test & Score: Compass Reading - 066

Or Test & Score: ACT Reading - 14

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#### **ECA133 SUPRTIG USERS AND TRBL DESK AP**

Credit Hours: 3 Contact Hours: 4

This course provides the student with the necessary skills to support, troubleshoot, and maintain a home computer and networked systems. This course also addresses security issues such as virus protection and application updates. Topics covered include supporting desktop applications, Internet Explorer, Outlook Express, Microsoft Office, and application security.

#### **Pre-reqs:**

ECA132

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#### **ECA138 WEB GRAPHICS DESIGN**

Credit Hours: 3 Contact Hours: 4

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:**



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## Information Tech

### Computer Science

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#### **ECA138 WEB GRAPHICS DESIGN**

Credit Hours: 3 Contact Hours: 4

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

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#### **ECA138A WEB DESIGN GRAPHICS A**

Credit Hours: 1.5 Contact Hours: 2

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

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#### **ECA138B WEB GRAPHICS DESIGN B**

Credit Hours: 1.5 Contact Hours: 2

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:**

ECA138A

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#### **ECA139 MCRSFT SQL SERVER DTBSE DES**

Credit Hours: 3 Contact Hours: 4

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,

#### **Pre-reqs:**

ECA253





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### Computer Science

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#### **ECA142 ORACLE DTBSE: INTRO TO SQL**

Credit Hours: 3 Contact Hours: 4

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:**

ECA253

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#### **ECA143 PLNG, DESGN & IMPMT IMAGNG SYS**

Credit Hours: 3 Contact Hours: 4

In this course, students will learn the skills to be competent and professional in the document imaging/document management industry. They will gain a level of expertise in the technology and best practices used to plan, design, and specify a document imaging, management system. A hands-on approach will allow the student to learn by doing while organizing document imaging and management systems for use in multiple business applications. The student will work through prepared assignments using a popular software package. Upon completion students will be prepared to work with and recommend document imaging software and document imaging solutions. This course helps prepare

#### **Pre-reqs:**

ECA122

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#### **ECA144 DESKTOP, LAN AND WAN TECH**

Credit Hours: 3 Contact Hours: 4

An introduction to networking technologies. Topics include clients, servers, communications media, network operating systems, communication protocols, bridges, routers, repeaters, hubs, wireless, and other networking components and procedures.

#### **Pre-reqs:**

ECA132

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#### **ECA147 ADV COMP APP FOR TECH PROF**

Credit Hours: 3 Contact Hours: 4

This course is designed to present Microsoft Office concepts in further detail. MS Word, Excel, PowerPoint, and Outlook will be covered at an advanced level. Upon completion, students should be able to troubleshoot and provide technical support for sophisticated documents, workbooks, presentation and e-mail related issues. This course aligns with Microsoft's MCAS certification exams.

#### **Pre-reqs:**

ITD122

Or BCA120



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## Information Tech

### Computer Science

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#### **ECA147      ADV COMP APP FOR TECH PROF**

Credit Hours: 3    Contact Hours: 4

This course is designed to present Microsoft Office concepts in further detail. MS Word, Excel, PowerPoint, and Outlook will be covered at an advanced level. Upon completion, students should be able to troubleshoot and provide technical support for sophisticated documents, workbooks, presentation and e-mail related issues. This course aligns with Microsoft's MCAS certification exams.

#### **Pre-reqs:**

Or    ECA122

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#### **ECA148      EXCEL:ANALYZE DATA MAKE DECSN**

Credit Hours: 3    Contact Hours: 4

Excel is a powerful tool capable of performing a variety of analytical functions used for budgeting, accounting and financial analysis. Applications created will include statistical, logical, financial and string functions, graphics, data manipulation, macros, "what-if" analysis, programming custom menus and transferring data to/from other software. Upon completion, students should be able to plan, implement, test and document complex spreadsheet models.

#### **Pre-reqs:**

ECA122

Or    ITD122

And    ECA253

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#### **ECA149      INTRO TO COMPUTERS**

Credit Hours: 1    Contact Hours: 1

This course offers students an introduction to computer concepts. The class covers basic computer components, including hardware and software. Students are taught to identify the basic components of a computer, use hardware peripherals, identify the major components of the Windows desktop, use many of the Windows operating system features, start and exit application software, use a browser to access the Internet, and use e-mail.

#### **Pre-reqs:**

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#### **ECA150      INFORMATICS**

Credit Hours: 3    Contact Hours: 4

This course introduces students to the concepts, practices and tools underlying the study of Informatics. Topics include, but are not limited to, information representation and infrastructure, meta data, knowledge management, data warehousing, data mining, user interface, analytical tools, careers, industry trends, social, global and organizational impacts, and applications in business, industry and education.

#### **Pre-reqs:**



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## Information Tech

### Computer Science

#### ECA150      **INFORMATICS**

Credit Hours: 3    Contact Hours: 4

This course introduces students to the concepts, practices and tools underlying the study of Informatics. Topics include, but are not limited to, information representation and infrastructure, meta data, knowledge management, data warehousing, data mining, user interface, analytical tools, careers, industry trends, social, global and organizational impacts, and applications in business, industry and education.

##### **Pre-reqs:**

IDS102

And MTH101

Or    Test & Score: Compass Algebra - 042

Or    MTH103

Or    Test & Score: ACT Math - 20

And ECA122

Or    ITD122

And ECA253

Or    Test & Score: Compass Reading - 080

Or    Test & Score: ACT Reading - 19

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#### ECA151      **ORACLE DATABASE:PL/SQL PR**

Credit Hours: 3    Contact Hours: 4

PL/SQL programming & tuning is an intense hands-on course that is designed to give the student maximum exposure to Oracle PL/SQL tuning and optimization. The student learns by doing dozens of in-class exercises and the student will be guided from very simple PL/SQL tuning to advanced PL/SQL performance optimization. The topics start with the basics of SQL and progress into increasingly complex queries, including table joins, subqueries and creating Oracle views. The PL/SQL section begins with simple concepts and the student gradually masters PL/SQL through increasingly challenging classroom exercises.

##### **Pre-reqs:**

ECA142

And ECA127

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#### ECA152      **MICRSFT ACCESS:DEV ROBUST APP**

Credit Hours: 3    Contact Hours: 4

This course covers advanced concepts of the Microsoft Access application. Topics include database management systems and the conceptual analysis of their purpose and use. A hands-on approach will allow the student to learn by doing while organizing data for use in multiple business applications. The student will work through prepared assignments using a popular software package. This course is designed to prepare you for the corresponding Microsoft Office (MCAS) exam. Upon completion, the student should be able to develop confidence and skill by developing, maintaining and using database applications.

##### **Pre-reqs:**

ECA122



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### Computer Science

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#### ECA152 MICRSFT ACCESS:DEV ROBUST APP

Credit Hours: 3 Contact Hours: 4

This course covers advanced concepts of the Microsoft Access application. Topics include database management systems and the conceptual analysis of their purpose and use. A hands-on approach will allow the student to learn by doing while organizing data for use in multiple business applications. The student will work through prepared assignments using a popular software package. This course is designed to prepare you for the corresponding Microsoft Office (MCAS) exam. Upon completion, the student should be able to develop confidence and skill by developing, maintaining and using database applications.

##### Pre-reqs:

Or ITD122

And ECA253

And MTH222

Or ITD122

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#### ECA153 INTRO TO THE INTERNET

Credit Hours: 1 Contact Hours: 2

This course is designed to teach students to use the Internet in a productive way through effective use of computer hardware and software. It will cover, through lecture and hands-on exercises, the basic tools, services and methods used for working with the Internet. Students will learn how to access the large collection of resources available on the Internet and how to communicate with other Internet users. Also covered will be the basics on how the Internet works. Upon completing the course, the student should have a basic understanding of the Internet and should be able to use basic Internet access tools to access the Internet.

##### Pre-reqs:

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#### ECA154 WEB DESIGN W DREAMWEAVER

Credit Hours: 3 Contact Hours: 4

Upon completion of this course, the student will have mastered implementation of Macromedia Dreamweaver to rapidly develop web sites, client side scripting and server side scripting, including database connection. Graphic development with Macromedia Fireworks is also introduced including Fireworks and Dreamweaver integration.

##### Pre-reqs:

ECA228



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### Computer Science

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#### **ECA155 FLASH ANIMATION AND DESIGN**

Credit Hours: 3 Contact Hours: 4

This course introduces the students to Adobe Flash. The student will learn to work with Flash effectively and master the concepts of animating with Flash. Topics include developing animations, tutorials and web objects with Flash. Programming in Flash with Actionscript is introduced. Hands-on labs are utilized to reinforce the presented materials.

#### **Pre-reqs:**

ECA228

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#### **ECA156 GAME DESIGN**

Credit Hours: 3 Contact Hours: 4

Categories of video games, design principles related to different processing platforms, current animation techniques, 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:**

IDS101

Or Test & Score: Compass Reading - 066

Or Test & Score: ACT Reading - 14

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#### **ECA158 WEB DES:ACCESS AND USABILITY**

Credit Hours: 1 Contact Hours: 2

This course emphasizes the legal and business reasons to make sites accessible and usable. Students will learn how future growth and demands will change the way designers create and maintain web applications while retaining the visual appeal of the site. Students will research current standards and guidelines and apply to live web sites. Students will also learn the up-to-date methods of testing web usability.

#### **Pre-reqs:**

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#### **ECA160 WEB DES: ETHICS-STD GUIDE LAWS**

Credit Hours: 1 Contact Hours: 2

This course covers the basic rules and laws of the web. Students will learn topics including intellectual property, copyright infringement, domain squatting, and other cyber laws. This course will also examine the current power struggle for ownership and control of the WWW.

#### **Pre-reqs:**



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#### **ECA160 WEB DES: ETHICS-STD GUIDE LAWS**

Credit Hours: 1 Contact Hours: 2

This course covers the basic rules and laws of the web. Students will learn topics including intellectual property, copyright infringement, domain squatting, and other cyber laws. This course will also examine the current power struggle for ownership and control of the WWW.

**Pre-reqs:**

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#### **ECA161 WEB DES: MEDIA ELEM-AUDIO/VID**

Credit Hours: 1 Contact Hours: 2

This course will cover how to embed popular video formats (such as QuickTime, Flash, Windows Media) into websites. Students will learn about video casting, podcasts and the software behind these technologies. Students will review and discuss how popular networking and video sites such as YouTube, Facebook, and MySpace have changed the landscape of the WWW.

**Pre-reqs:**

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#### **ECA162 MCAS:MICROSOFT OFFICE OUTLOOK**

Credit Hours: 1 Contact Hours: 2

In this course students will learn how to work with Microsoft Outlook features such as Address Book, create Contacts, send e-mail messages and attachments, manage your Calendar, configure Tasks, use Journal, keep Notes, and print Outlook data. Additional topics include how to schedule meetings and how to find information stored in your Outlook folders. This course helps prepare the student for the Microsoft Certified Application Specialist exam.

**Pre-reqs:**

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#### **ECA163 OPEN OFFICE APPLICATION I**

Credit Hours: 1 Contact Hours: 2

OpenOffice applications offer any of the features to be found in Microsoft Office, it's extremely stable, runs on PC or Mac, but best of all it's free. This course will introduce the student to how they can get the most from these applications, learn how to create impressive word documents with Writer, create amazing spreadsheets that can carry out calculations without complexity with Calc, design and deploy professional presentations with Impress, add color and design to your work using Draw.

**Pre-reqs:**

ECA122



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#### **ECA164 OPEN OFFICE APPLICATION II**

Credit Hours: 1 Contact Hours: 2

A continuation of the study and utilization of the OpenOffice applications. This course will introduce the student to advanced topics and utilization of Writer, Calc, Impress, Draw with introduction to Base; the OpenOffice database application

#### **Pre-reqs:**

ECA163

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#### **ECA165 MCAS:MICROSFT OFFICE PUBLISHER**

Credit Hours: 1 Contact Hours: 2

In this course, you will look at how to create a publication from scratch or use one of the hundreds of business and personal designs, as well as creating newsletters, brochures, business cards, postcards, flyers, among others for print, email, and the Web. This course helps the student prepare for the Microsoft Certified Application Specialist exam.

#### **Pre-reqs:**

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#### **ECA166 MCTS:MICROSFT WINDOWS MOBILE**

Credit Hours: 1 Contact Hours: 2

This course introduces students to the design, implementation, and maintenance of Microsoft Windows Mobile. Students will also learn about the configuration of Windows Mobile interface devices and their interoperability with other Microsoft platform software. Windows Mobile is aimed at those interested in mobile devices and Windows compatibility in smart phones and PDA devices. Students will be prepared to take the related Microsoft exam which will qualify them as a MCTS certified individual. The topics introduced in the course and on the exam include provisioning for mobile devices, integration with Exchange server, configuring mobile infrastructure, and managing

#### **Pre-reqs:**

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#### **ECA167 MCAS:MICROSOFT VISIO**

Credit Hours: 1 Contact Hours: 2

In this course, students will learn the features and functions of Microsoft Office Visio. Topics include working with block diagrams and move, size, rotate, and copy shapes; formatting individual shapes, add decorative elements, and apply themes to entire diagrams; connecting shapes, use connectors in a flowchart, and use layout tools to distribute, align, and position shapes and using Visio timelines and Gantt charts, create timelines, export timeline data, and track project details. This course helps prepare students for the Microsoft Certified Application Specialist exam.

#### **Pre-reqs:**



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#### **ECA168 MCAS:MICROSOFT VISTA**

Credit Hours: 1 Contact Hours: 2

In this course, students will learn the features of Windows Vista. They will become familiar with the Windows Vista user interface, so that you can confidently start using Windows Vista. This course helps prepare the student for the Microsoft Certified Application Specialist exam.

**Pre-reqs:**

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#### **ECA169 MCAS:USING MICROSOFT GROOVE**

Credit Hours: 1 Contact Hours: 2

In this course, students will learn how to create and manage Workspaces with Office Groove 2007. Students will also learn how to share files and project information using the Workspace, as well as enabling effective team communication and collecting information using forms. You will learn how to manage your team workspace using the Launchbar, Alerts, and managing member access to Workspace content. Finally, students will learn the tips and tricks to get up to speed quickly with this team collaboration environment from Microsoft. This course helps prepare students for the Microsoft Certified Application Specialist exam.

**Pre-reqs:**

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#### **ECA170 MCAS:MICROSOFT WORD**

Credit Hours: 1 Contact Hours: 2

This course was designed for persons who can create and modify standard business documents in Microsoft Word , and who need to learn how to use Microsoft Word XP to create or modify complex business documents as well as customized Word efficiency tools. Additionally, students will learn how to use the more advanced features of Word XP to create, manage, revise, and distribute long documents, forms, and Web pages. This course helps students prepare for the Microsoft Certified Applications Specialist exam.

**Pre-reqs:**

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#### **ECA171 MCAS:MICROSOFT EXCEL**

Credit Hours: 1 Contact Hours: 2

This course was designed for students desiring to gain the skills necessary to create templates, sort and filter data, import and export data, analyze data, work with Excel on the Web, create macros, collaborate with others, audit and analyze worksheet data, create PivotTables and PivotCharts, incorporate multiple data sources, and import and export data. In addition, the course is also for students desiring to prepare for the Microsoft Certified Application Specialist exam in Excel.

**Pre-reqs:**





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#### **ECA172 MCAS:MICROSOFT POWERPOINT**

Credit Hours: 1 Contact Hours: 2

This course is designed for students who desire to gain the skills necessary to work with design templates, organizational charts, special effects, Web presentations, collaboration functionality, and advanced presentation delivery, and basics of Microsoft PowerPoint, including slide formatting, working with tables, images, and objects, charting data, and presentation preparation. This course helps prepare students for the Microsoft Certified Applications Specialist exam.

**Pre-reqs:**

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#### **ECA173 MCAS:MICROSOFT ACCESS**

Credit Hours: 1 Contact Hours: 2

This course is designed for the student who wishes to learn beginner to advanced operations of the Microsoft Office Access database program. This includes working with Access tables, relationships, queries, forms, and reports. In this course you will consider how to design and create a new Access database, how to customize database components, and how to share Access data with other applications. Students will also be exposed to working with tables; creating advanced queries, forms, and reports; writing macros to automate common tasks; and performing general database maintenance. It is also designed as one in a series of courses for students pursuing the Microsoft

**Pre-reqs:**

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#### **ECA174 THE INFO AGE-SOCIAL NTRKNG**

Credit Hours: 1 Contact Hours: 2

Social software encompasses a range of software systems that allow users to interact and share data. In this course students will learn about and utilize various social software. The tools that are used in social software applications include communication tools and interactive tools. Communication tools typically handle the capturing, storing, and presentation of communication, usually written but increasingly including audio and video also. Interactive tools handle mediated interactions between a pair or group of users. Upon completion, students will understand the personal and professional benefits and opportunities produced when utilizing these software applications.

**Pre-reqs:**

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#### **ECA222 C++ PROGRAMMING**

Credit Hours: 3 Contact Hours: 4

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:**

ECA127



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### Computer Science

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#### **ECA223      JAVA PROGRAMMING**

Credit Hours: 3    Contact Hours: 4

This course provides students with a solid foundation in the Java programming language. Students will be able to write application programs to access data, solve problems, and display graphical output windows. Students will become familiar with JAVA data types, control structures, and classes. Students will create applets to add animation to web pages.

#### **Pre-reqs:**

ECA127

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#### **ECA223A      JAVA PROGRAMMING A**

Credit Hours: 1.5    Contact Hours: 2

This course introduces the student to software programming logic and problem-solving techniques using the Java programming language. ECA223A requires you to install the Java Development KIT(JDK) on your home computer or have access to computers somewhere else which have the JDK installed. Sequential, conditional and repetitive logic constructs are central topics.

#### **Pre-reqs:**

ECA127

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#### **ECA223B      JAVA PROGRAMMING B**

Credit Hours: 1.5    Contact Hours: 2

This course introduces the student 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. ECA223B requires you to install the Java Development Kit (JDK) on your home computer or have access to computers somewhere else which have the JDK installed. Sequential, conditional and repetitive logic constructs are presented. The students learn how to write Abstract Data Types as a part of the object-oriented presentations.

#### **Pre-reqs:**

ECA223A

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#### **ECA224      ADVANCED C++ PROGRAMMING**

Credit Hours: 3    Contact Hours: 4

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:**

ECA222



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#### **ECA225 WEB DEV W JAVASCRIPT AJAX**

Credit Hours: 3 Contact Hours: 4

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

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#### **ECA226 WINDOWS PROGRAMMING WITH C#**

Credit Hours: 3 Contact Hours: 4

In this course the student will learn to design, create, test, deploy, maintain and support desktop software applications using Microsoft's C#.Net. The student will complete a series of hands-on lab exercises using C#. This class will help prepare the student Microsoft's MCTS certification exam. Hands-on labs are utilized to reinforce the presented materials.

#### **Pre-reqs:**

ECA127

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#### **ECA227 ASSEMBLY LANGUAGE PROG**

Credit Hours: 3 Contact Hours: 4

The relationship between software languages and computer architecture is presented. This course examines assemblers, specification and translation of programming languages, linkers and loaders, block structure languages, parameter passing mechanisms and a comparison of programming languages. Hands-on labs are utilized to reinforce the presented materials.

#### **Pre-reqs:**

ECA222

Or ECA223

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#### **ECA228 INTERNET/INTRANET DES & DEV**

Credit Hours: 3 Contact Hours: 4

In this course students learn to develop basic Internet and Intranet web pages and complete sites. Students learn the basics of web design and client side mark up languages including HTML, CSS, XHTML, and XML. Hands-on labs are utilized to reinforce the presented materials.

#### **Pre-reqs:**

IDS101



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## Information Tech

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#### **ECA228 INTERNET/INTRANET DES & DEV**

Credit Hours: 3 Contact Hours: 4

In this course students learn to develop basic Internet and Intranet web pages and complete sites. Students learn the basics of web design and client side mark up languages including HTML, CSS, XHTML, and XML. Hands-on labs are utilized to reinforce the presented materials.

#### **Pre-reqs:**

Or Test & Score: Compass Reading - 066

Or Test & Score: ACT Reading - 14

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#### **ECA229 ACTIVE SERVER PAGE DEV**

Credit Hours: 3 Contact Hours: 4

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:**

ECA228

And ECA127

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#### **ECA230 JAVA WEB DATABASE PROGRAMMING**

Credit Hours: 3 Contact Hours: 4

Examines the design and use of relational databases. Normalization rules, graphic user interfaces, JDBC, SQL, Java Server Pages, Java Servlets and relational database management systems are principal topics. A collection of hands-on labs illustrates the use of web-database technologies.

#### **Pre-reqs:**

ECA223

And ECA253



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#### **ECA231 DATA ACQUISITION AND ANALYSIS**

Credit Hours: 3 Contact Hours: 4

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:**

ECA253

And MTH222

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#### **ECA232 CONTENT MGT SYS DEV DES**

Credit Hours: 3 Contact Hours: 4

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:**

ECA253

And ECA228

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#### **ECA233 ANALYZNG SFTWRE REQ AND DEV SOL**

Credit Hours: 3 Contact Hours: 5

Presents the System Development Life Cycle methodology to investigate, analyze, design and implement a computer software solution to a simulated or actual real-world business problem. Students working in small groups will perform the Preliminary Investigation for a systems request, perform fact finding to create the System Requirements Document, use logical modeling tools (DFD, Flowchart, Decision Tables), use input and output design principles, and Application Development tools. Student will be required to present and demonstrate their completed and functional Systems Project. This course has a Pre-Requisite: Completion of two software development language courses.

#### **Pre-reqs:**

ECA128

Or ECA222

Or ECA223

Or ECA225

Or ECA226

Or ECA229

Or ECA234

Or ECA236

And ECA253



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#### **ECA234      ADVD CASCADING STYLE SHEETS**

Credit Hours: 3    Contact Hours: 4

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

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#### **ECA236      WEB DEV WITH PHP ND MYSQL**

Credit Hours: 3    Contact Hours: 4

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:**

ECA228

And ECA127

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#### **ECA238      ADV VISUAL BASIC DEV**

Credit Hours: 3    Contact Hours: 4

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:**

ECA128

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#### **ECA239      ADVANCED JAVA PROGRAMMING**

Credit Hours: 3    Contact Hours: 4

Design, creation, testing, deployment, maintenance and support of software applications using Sun Microsystem's Java language are illustrated through a collection of practical, hands-on lab exercises and lectures. Applications focus on the multi-threaded, networking and multimedia aspects of the Java language. Helps prepare students for specific Sun Microsystem certification test: Sun Certified Programmer for the Java Platform.

#### **Pre-reqs:**

ECA223



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#### **ECA240 ADV GAMING AND SIMULATN TOPICS**

Credit Hours: 3 Contact Hours: 4

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:**

ECA224

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#### **ECA241 3D GAME DESIGN AND DEV**

Credit Hours: 3 Contact Hours: 4

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

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#### **ECA247 ADVANCE XML AND WEB SERVICES**

Credit Hours: 3 Contact Hours: 4

An advanced course in .Net development focusing on ADO.Net, XML and Web services. Topics include dataset, dataTable, dataAdapter, web. config, webParts converting database data to XML and back, concluding with creating and consuming web services. ASP.Net controls are also taken to the next level centering on advanced database techniques.

#### **Pre-reqs:**

ECA229

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#### **ECA252 DATA MINING AND DATA WARHOUSNG**

Credit Hours: 3 Contact Hours: 4

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:**

ECA253



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## Information Tech

### Computer Science

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#### **ECA253 DATA MODELING AND DATABSE DSGN**

Credit Hours: 3 Contact Hours: 4

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:**

IDS101

Or Test & Score: Compass Reading - 066

Or Test & Score: ACT Reading - 14

And MTH101

Or Test & Score: Compass Algebra - 042

Or Test & Score: ACT Math - 20

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#### **ECA255 MCTS:MANG PROJS W MICRSFT PROJ**

Credit Hours: 3 Contact Hours: 4

This course focuses on Microsoft Project . Students will complete a major project, and will examine and analyze all elements of these projects. Upon completion, students will be able to use these tools to manage and develop processes such as planning, budgeting, and applications design and delivery. This course aligns with Microsoft's MCAS exam.

##### **Pre-reqs:**

ECA122

Or ITD122

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#### **ECA259 MCITP:CONSUMER SUPPORT TECH**

Credit Hours: 3 Contact Hours: 4

This course teaches students how to support users running applications using Microsoft Windows in a corporate environment or Microsoft Windows in a home environment. Students will use applications that are included with the operating system, such as Microsoft Internet Explorer and Microsoft Outlook Express, as well as productivity applications such as Microsoft Office applications. Upon completion students will be able to resolve problems that occur by using various methods such as telephone connecting to an end user's system remotely, or by going to an end user's site or computer. This course helps prepare students for the corresponding Microsoft certification exam.

##### **Pre-reqs:**

ECA133





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## Information Tech

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#### **ECA260 SFTWRE ENG FOR HAND-HELD DEVIC**

Credit Hours: 3 Contact Hours: 4

This course focuses on the use of the Sun Java Wireless Toolkit as a set of tools to help develop wireless applications based on J2ME's Connected Limited Device Configuration (CLDC) and Mobile Information Device Profile (MIDP). The student will learn how to develop applications which are designed to run on cell phones, mainstream personal digital assistants, and other small mobile devices. The student will learn how to use the emulation environments which are built into the toolkit to develop applications for cell phones.

#### **Pre-reqs:**

ECA223

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#### **ECA261 SFTWRE ENGINEERING FOR ROBOTIC**

Credit Hours: 3 Contact Hours: 4

This course integrates the mechanical capabilities of a small robot with the logic of a custom software program written in the Java programming language. Upon completion of this course, the student will be able to: display messages on the robot's LCD screen(s), move the small robot in a predetermined manner, interface programmatically with sensors attached to the robot, and keep track of the location of the robot.

#### **Pre-reqs:**

ECA223

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#### **ECA263 MCITP: ENTERPRISE SUPP TECH**

Credit Hours: 3 Contact Hours: 4

This course teaches students how to deploy Windows Vista, manage security, and troubleshoot network-related issues with Windows Vista. Upon completion students will be able to resolve operating system issues using various methods such as telephone, connecting to an end user's system remotely or by going to an end user's site or computer. This course helps prepare students for the corresponding Microsoft certification exam.

#### **Pre-reqs:**

ECA133

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#### **ECA264 IT PROJECT MANAGEMENT**

Credit Hours: 3 Contact Hours: 4

Students will be involved in the design, development, and management of various IT projects. Using these hands-on labs, students will develop a competency and professionalism in IT project management including the necessary business knowledge, interpersonal skills, and project management skills required to successfully manage IT projects. Topics in this course incorporate universal project management principles, and include important skills such as conflict resolution, negotiation, communicating, team building/leadership, and setting and managing expectations. Upon completion, students will have skills to explore the greater detail various project management tools, such as

#### **Pre-reqs:**

ECA122

And ECA253



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## Information Tech

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#### **ECA265 GENRTNG RPRTS FOR DECSN MKG**

Credit Hours: 3 Contact Hours: 4

Students will gain extensive experience using Crystal Reports and other reporting tools to connect to databases, retrieve raw data, format the data, create reports, and present the reports to internet and intranet users. Topics will include: developing reports to transform data into meaningful information, creating graphical and crosstab reports, adding calculations and program logic with the Formula Workshop, connecting to data sources, analyzing database structures, extracting the data for reporting needs and deploying reports to Web browsers and other applications. Hands-on labs are utilized to reinforce the presented materials.

#### **Pre-reqs:**

ECA253

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#### **ECA266 SEARCH ENGINE OPTIMIZATION**

Credit Hours: 3 Contact Hours: 4

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

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#### **ECA267 ADV FLASH ANIMATION AND DES**

Credit Hours: 3 Contact Hours: 4

Learn to develop cartoon characters online and use them in web site marketing. Each aspect of character drawing taken step by step is concluded with developing a complete character. Various animation techniques are applied to the character culminating in a complete animation. Hands-on labs are utilized to reinforce the presented materials.

#### **Pre-reqs:**

ECA155

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#### **ECA268 ADV WEB DEV W PHP AND MYSQL**

Credit Hours: 3 Contact Hours: 4

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



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## Information Tech

### Computer Science

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#### **ECA269 ADV MICROSOFT SQL SRVC DTBSE**

Credit Hours: 3 Contact Hours: 4

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:**

ECA139

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#### **ECA270 ORACLE DTBASE :ARCH AND ADM**

Credit Hours: 3 Contact Hours: 4

Introduction to Oracle Administration and Management is a course designed to provide students with an in-depth understanding of the basic features of Oracle including object-orientation, partitioning and advanced Oracle features for the Internet. The goal in this course is to cover the Oracle architecture and internal mechanisms such that the student is 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 the student will gain first-hand experience in the key Oracle DBA concepts.

#### **Pre-reqs:**

ECA142

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#### **ECA272 MICROSOFT SQL SERV DTBSE-BUS**

Credit Hours: 3 Contact Hours: 4

In this course students will design and implement multi-dimensional database models (logical and physical), data marts, data warehousing, data transforms, data analytics, and reporting solutions. This includes programming and customizing servers that use Multidimensional Expressions (MDX), customer transforms, and custom reporting solutions. Business intelligence developers are typically employed by mid-sized to large-sized organizations. Hands-on labs and exercises will reinforce the materials. This course helps prepare students for the Microsoft Certified IT Professional: Business Intelligence Developer exam. MCITP: Business Intelligence Developer is the premier

#### **Pre-reqs:**

ECA269

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#### **ECA280 ADVANCED INFORMATICS**

Credit Hours: 3 Contact Hours: 4

This course expands students' understanding and knowledge of the practices and tools underlying Informatics. Topics include, but are not limited to, information representation and infrastructure, meta data, knowledge management, data warehousing, data mining, user interface, analytical tools, careers, industry trends, social, global and organizational impacts, and applications in business, industry and education.

#### **Pre-reqs:**

ECA150



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## Information Tech

### Computer Science

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#### **ECA281 2D GAME DESIGN AND DEVELP**

Credit Hours: 3 Contact Hours: 4

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:**

ECA222

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#### **ECA282 FLASH ACTIONSCRIPTING**

Credit Hours: 3 Contact Hours: 4

This course focuses on using Flash for web site creation. The student learns to use actionscripting to interact with Flash, load external data and create complex sites using components. Hans-on labs are utilized to reinforce the presented materials.

#### **Pre-reqs:**

ECA155

And ECA127

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#### **ECA287 DEV CUSTOM CNTRLS FOR .NET**

Credit Hours: 3 Contact Hours: 4

This course focuses on developing controls in .NET. The student will develop controls that can be used in Windows programs and will develop controls that can be used in ASP.NET web sites. Test programs in Windows and APS.NET will also be developed to test the controls made.

#### **Pre-reqs:**

ECA229

And ECA128

Or ECA226



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## Information Tech

### Computer Science

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#### **ECA288      MICROSOFT ADO DEVELOPOMENT**

Credit Hours: 3   Contact Hours: 4

Students Learn how to manipulate relational data using Microsoft's new ADO.NET library as they learn valuable techniques for building both Web and Windows applications. ADO.NET is an evolutionary improvement to Microsoft ActiveX Data Objects (ADO) that provides platform interoperability and scalable data access. Using Extensible Markup Language (XML), ADO.NET can ensure the efficient transfer of data to any application on any platform. With hands-on labs using Visual Studio .NET, students program against objects, not tables and columns. Upon completion students will be able to utilize ADO.NET features to quickly write reliable data access code.

#### **Pre-reqs:**

ECA127

And ECA253

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#### **ECA289      MICROSFOT PRESENTATN FNDTNS**

Credit Hours: 3   Contact Hours: 4

This course provides the student with hands-on experience with the latest in Microsoft UI technologies. Students will become more familiar with the dynamic and creative application development that Windows Presentation Foundation (WPF) enables. Labs will focus on preparing students to utilize WPF for building new projects and for porting existing Windows Forms, Microsoft Foundation Class, or traditional Win32 applications over to this new platform. Additional topics include details on threading, utilizing 3D, and globalization.

#### **Pre-reqs:**

ECA128

Or ECA226

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#### **ECA290      MICRSOFT EXPRESSION STUDIO**

Credit Hours: 3   Contact Hours: 4

This class will cover planning your website, setting up a local website in Expression Web, creating your first web page, semantic HTML, beginning CSS using the Expression Web tools and end with a complete website using a Dynamic Web Template.

#### **Pre-reqs:**

ECA228

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#### **ECA291      PYTHON DEVELOPMENT**

Credit Hours: 3   Contact Hours: 4

This course will introduce the student to basic programming and syntax, CGI programming, object-oriented techniques, GUIs, exception handling, regular expressions, XML programming, DB-API database integration, networking, security and wireless application development using the Python development environment. Coverage includes control structures, functions, classes, inheritance, string manipulation, security, syntax, objects, exceptions, CGI, GUIs, XML, DB-API, networking, data structures, multimedia, and Python for wireless/handhelds.

#### **Pre-reqs:**



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## Information Tech

### Computer Science

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#### Pre-reqs:

ECA127

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#### ECA292 INFORMATION TECH CAPSTONE

Credit Hours: 3 Contact Hours: 4

This course is designed for students who would like to conduct a major, independent project involving a substantial enterprise information system design that builds upon elements of the IT curriculum. The project includes requirements analysis, IT architecture design, network design, software integration, decision support applications, and deployment planning. Interim deliverables include presentations to the course advisors. Project proposals are required and a mentor will be assigned to the student.

#### Pre-reqs:

ECA253

And ECA224

Or ECA230

Or ECA239

Or ECA238

Or ECA268

Or ECA296

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#### ECA293 MCAP:DEV CROSS FUNC SKILLS

Credit Hours: 3 Contact Hours: 4

This course focuses on preparing students for the Microsoft Certified Application Professional (MCAP) credential. MCAP sets a globally recognized standard to validate your skills using the 2007 Microsoft Office system and Microsoft SharePoint sites to collaborate across boundaries to complete projects, tasks, and deliverables. The MCAP credential demonstrates advanced, cross-industry, and cross-job role capabilities, focusing on critical areas of responsibility for business workers. MCAP skills that students will learn include Managing budgets, Managing presentations, Managing team collaboration, and Supporting organizations. Students will take the MCAP exam as part of this course.

#### Pre-reqs:

ECA147



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## Information Tech

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#### **ECA294 MCAS:VISTA, OUTLOOK AND PUBLSH**

Credit Hours: 3 Contact Hours: 4

This course is designed to present Microsoft concepts in further detail. Microsoft Vista, Outlook and Publisher will be covered at an advanced level. Upon completion, students should be able to work with the technical and sophisticated elements of Vista, Outlook, and publisher. This course helps prepare the student for the Microsoft Certified Application Specialist exam.

#### **Pre-reqs:**

ECA122

Or ITD122

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#### **ECA296 ADV ACTIVE SVR PAGE DEV**

Credit Hours: 3 Contact Hours: 4

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

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#### **ECA297 MICROSOFT SHAREPOINT DEVELOP**

Credit Hours: 3 Contact Hours: 4

This course presents an overview of Microsoft Office Sharepoint Server (MOSS). Topic include planning and designing a MOSS, implementing a content management system, and implementing a portal solution.

#### **Pre-reqs:**

ECA127

And ECA228

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#### **ECA298 MICROSOFT SILVERLIGHT DEV**

Credit Hours: 3 Contact Hours: 4

Silverlight poses exciting new opportunities for creating visually impressive web applications, offering unparalleled response times and minimal bandwidth requirements. This course covers the use of "Microsoft Expression Blend, Expression Design, Expression Web and Visual Studio to create rich interactive cross browsers, cross platform applications for the web.

#### **Pre-reqs:**



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## Information Tech

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#### **Pre-reqs:**

ECA225

And ECA127

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#### **ECA302      ADV WEB DESIGN**

Credit Hours: 3    Contact Hours: 4

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

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#### **EET245      TECH PROJ-ELECC TELECOM**

Credit Hours: 3    Contact Hours: 5

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:**

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#### **EET260      COMPUTER FORENSICS**

Credit Hours: 3    Contact Hours: 4

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:**

ECA127





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## Information Tech

### Computer Science

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##### Pre-reqs:

Or CAP121

And EET131

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#### EET261 ADVCD NETWKG AND SECURTY TPC

Credit Hours: 3 Contact Hours: 5

Session hijacking, trojans, virii, input validation and other types of attacks are covered in this class. Ghost Mail, NetCat and war dialers will be used as tools to provide counter measures against the computer criminal.

##### Pre-reqs:

ECA129

And ECA130

And EET131

And EET141

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#### GIS121 GIS AND REMOTE SENSING

Credit Hours: 3 Contact Hours: 4

This course launches the student into the exciting world of Geographic Information Systems and Remote Sensing. While learning about the basics from the evolution of maps and projections, to learning about the modern uses of a GIS, students will complete many "hands-on" activities such as creating your own maps using compasses, rulers and tape measures. Students will also utilize an actual program that NASA uses to simulate satellite movements. The specific areas of focus for this course will be an Introduction to GIS and Remote Sensing, an Introduction to the Project Management Model, an Introduction to GIS concepts, an Introduction to Remote Sensing Concepts, and the

##### Pre-reqs:

IDS102

Or Test & Score: ACT Composite - 22

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080

And MTH101

Or MTH103

Or Test & Score: ACT Math - 20



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## Information Tech

### Computer Science

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#### **GIS121      GIS AND REMOTE SENSING**

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#### **Pre-reqs:**

Or    Test & Score: Compass Algebra - 042

Or    ECA122

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#### **GIS122      GIS TOOLS AND PROCESSES**

Credit Hours: 3    Contact Hours: 4

This course introduces students to two very important components of the ArcGIS program; ArcCatalog and ArcMap. Students will be provided with step by step instructions that will take them from learning the basics of these programs; like launching a map, viewing and editing metadata, to creating new shapefiles, and eventually to building a local map with data that students download from the Internet. While learning these valuable skills, students will be using the same geospatial tools that people in the industry are using.

#### **Pre-reqs:**

IDS102

Or    Test & Score: ACT Reading - 19

Or    Test & Score: Compass Reading - 080

And   MTH101

Or    MTH103

Or    Test & Score: ACT Math - 20

Or    Test & Score: Compass Algebra - 042

Or    ECA122

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#### **GIS221      SPECIAL TOPICS IN GIS**

Credit Hours: 2    Contact Hours: 3

This course examines the scientific methods used to derive useful information from spatial data. Students explore GIS theory related to the visualization, measurement, transformation, and optimization of spatial data. An underlying theme that uncertainty is an inherent characteristic of spatial data is thoroughly examined and students learn how to identify it, measure it, and live with it.

#### **Pre-reqs:**

GIS121

And   GIS122



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#### **GIS222 EXTENDED TOOLS IN REMOTE SENSI**

Credit Hours: 2 Contact Hours: 3

This course takes students through the Leica Geosystems Image Analysis software extension for ArcGIS. Remote sensing plays a huge part of image analysis in that it involves gathering data about our environment and analyzing it. Generally, the gathering of this data, or these images, is by satellite or airplane. Students develop skills to take images and convert them to data that students will use for different types of analyses. Students perform analysis using data in Image Analysis, Orthorectification, Feature Extraction, Vegetation Mapping and Change Detection, and Image Enhancement.

##### **Pre-reqs:**

GIS121

And GIS122

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#### **GIS223 ADV TLS IN GIS AND REMOTE SENS**

Credit Hours: 2 Contact Hours: 3

Students utilize their knowledge of ArcMap and ArcCatalog to complete numerous geospatial applications. Students learn techniques in displaying, managing, querying, symbolizing, and creating geospatial data. Students plan and build an inventory of local data to be used for analyses. In the Data Collection part of this course students use GPS units to collect, store and import data to create a map of the college campus. In the last portion of the course, students use scenarios that map features and study relationships that exist in the local community.

##### **Pre-reqs:**

GIS222

Can be Taken Concurrently

And GIS122

And GIS121

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#### **GIS224 EXTENDED TOOLS IN SURFACE ANAL**

Credit Hours: 2 Contact Hours: 3

This course directs students through five types of applications in Surface Analysis using the ArcGIS Spatial Analyst software extension. This course focuses on the various methods and uses of displaying continuous, or grid, data over a surface. Students will be able to map data such as elevation, rainfall and temperature – data that differs from one location to the next on the surface of the earth with the skills acquired in this course. The five types of analyses that students will be using in this course are: mapping distance, density, interpolation, surface analysis, and statistics. This course will conclude with a short project where students use the skills acquired to perform surface analysis tasks

##### **Pre-reqs:**

GIS225

Can be Taken Concurrently

And GIS121

And GIS122



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#### GIS225 EXTENDED TOOLS IN ROUTING ANAL

Credit Hours: 2 Contact Hours: 3

This course takes students deeper into exploring data layers to analyze the flow or navigation of networked data. In this course students delve into the specifics of Network Analyst extension program of the ArcGIS suite and examine how problems dealing with geospatial networks and routing may be found in the business world and in communities. The five types of analyses that students cover in this course are: Exploring Geospatial Networks, Finding the Best Route, Finding the Closest Facility, Determining Service Areas, and Modeling Real World Traffic Flow.

##### Pre-reqs:

GIS222

Can be Taken Concurrently

And GIS121

And GIS122

And GIS224

Can be Taken Concurrently

#### GIS226 EXTENDED TOOLS IN 3D VISUALZTN

Credit Hours: 2 Contact Hours: 3

In this course students study the area they live in as well as the world in three dimensions. This exciting course allows students to view the world as it truly appears and learn how to add animation. Students use two components of ArcGIS 3D Analyst for this course: ArcScene and ArcGlobe. Students learn skills such as viewing and displaying data in ArcScene, how to acquire and process data from online resources, how to display non-elevation data in 3D, how to apply surface analysis to 3D, how to add raster and vector data to ArcGlobe, and how to animate and export projects.

##### Pre-reqs:

GIS222

And GIS223

#### GIS227 GEOSPATIAL APPTN PROJ PUB SAF

Credit Hours: 2 Contact Hours: 3

This course covers the application of GIS/RS technology in setting up a public health and safety, or emergency plan, for your campus. Students compose a written plan which will lay out the procedures and responsibilities of campus personnel in the event of an emergency, and will identify the various responses each of these key personnel will have given each specific emergency. Using their GIS/RS skills and technology, students create maps supporting documents to these plans that lay out the location of existing facilities and essential supplies, as well as the response position of students and campus personnel given each specific crisis. The course will end with the student presenting

##### Pre-reqs:

GIS222

And GIS223

And GIS224

And GIS225



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#### **GIS228      GEOSPATIAL APPL PROJ IN AGRICL**

Credit Hours: 2   Contact Hours: 3

This course focuses on applications of GIS/RS technology in the field of Agriculture & Natural Resource Technology. Specifically this project deals with the field of forestry and involves the creation of a campus-wide tree inventory. By utilizing GIS/RS technology, the benefits of having trees on campus can be quantified and expressed in terms that are relevant to environmentalists, government officials, land developers, and the public in general. Although the extent of a students study for this project will be limited to the tools that they have utilized up until this point in, this project will give students a tremendous amount of experience and information in the focus of spatial technology in the field of

#### **Pre-reqs:**

GIS222

And GIS223

And GIS224

And GIS225

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#### **GIS229      GEOSPATIAL APP PROJ IN BUS MKT**

Credit Hours: 2   Contact Hours: 3

This course covers the application of GIS/RS technology in setting up a Site Suitability Project for the college campus. Whether finding an appropriate site for a business or finding a place for a garden on campus, location is one of the most critical factors to consider. Geospatial analysis is an excellent tool to use for this endeavor. In this course, students use ArcMap and its components to analyze various factors to consider when scouting out locations such as; open space, sunlight, air circulation, slope/drainage, wind protection, irrigation and soil suitability. Students make appropriate layouts and will compose a written report to document his findings. The course will conclude with the

#### **Pre-reqs:**

GIS222

And GIS223

And GIS224

And GIS225

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#### **GIS230      GEOSPATIAL APP PROJ CREATG MOD**

Credit Hours: 2   Contact Hours: 3

In this course student's apply all skills and techniques learned to create their first extensive GIS and Remote Sensing project. In this project, students create a three-dimensional map of the college campus. Students work on teams to complete this project using the Project Management Model as their guide. Students are involved with all parts of the process from data collection using GPS units to presenting the project to interested stakeholders.

#### **Pre-reqs:**

GIS222

And GIS223

And GIS224

And GIS225



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#### ITD121 INFORMTN TECH STUDNT SUCCS SEM

Credit Hours: 1 Contact Hours: 2

The Student Success Skills course is designed to aid students in gaining skills necessary for success in both academic and other life settings. Topics include learning styles, critical thinking, time management, study and test-taking techniques, communication and relationship-building skills, college resource exploration, and a variety of personal development strategies. The course also encourages the development of social skills and fosters a connection with classmates at SSCT and the division. Upon completion of this course, students should be able to incorporate into their program or certificate the tools and skills necessary to be academically and professionally

**Pre-reqs:**

### Computer Security

#### CFS129 CRYPTOGRAPHY

Credit Hours: 3 Contact Hours: 4

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:**

#### CFS136 PRINC OF INFORMATION SECURITY

Credit Hours: 3 Contact Hours: 4

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

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:**

NET120



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## Information Tech

### Computer Security

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#### **CFS137      COMPUTER CRIME AND INVESTIGATN**

Credit Hours: 3    Contact Hours: 4

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

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#### **CFS175      WHITE COLLAR CRIME**

Credit Hours: 3    Contact Hours: 4

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:**

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#### **CFS176      ONLINE INVESTIGATION RESOURCES**

Credit Hours: 3    Contact Hours: 4

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:**

CFS137

Or    ECA137

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#### **CFS256      DISASTR RCVRY AND INCIDENT PLN**

Credit Hours: 3    Contact Hours: 4

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:**



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#### **CFS257 FILE SYSTEMS ANALYSIS**

Credit Hours: 3 Contact Hours: 4

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:**

ECA137

Or CFS137

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#### **CFS258 CYBER FORENSCS AND DATA RECRVY**

Credit Hours: 3 Contact Hours: 4

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

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#### **CFS275 ETHICAL HACKING**

Credit Hours: 3 Contact Hours: 4

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:**

NET120

And NET220

Or ECA145

Or ECA277





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#### **CFS280      DIGITAL MEDIA FORENSICS**

Credit Hours: 3    Contact Hours: 4

The student will understand the methods and tools used in preserving, duplicating, imaging and validating data from peripheral devices such as cellular phones, PDAs, IPODs, and Blackberrys. In addition to this, attention will be given to the gathering of evidence from both hard wired and wireless networks devices. Students will practice the gathering of information from these devices using the appropriate methods and software to allow the information to be admissible in court.

#### **Pre-reqs:**

CFS137

Or    ECA137

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#### **CFS281      ADV DIGITAL MEDIA FORENSICS**

Credit Hours: 3    Contact Hours: 4

The student will learn advanced techniques to gather data from digital devices focusing on data maintained in system memory and recovery of this data using live acquisition tools and techniques.

#### **Pre-reqs:**

ECA258

Or    CFS258

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#### **CFS286      UNIX/LINUX FORENSICS**

Credit Hours: 3    Contact Hours: 4

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:**

NET220

Or    ECA277



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**Information Tech**

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**Computer Security**

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**ECA130 SOFTWARE VULNERABILITIES**

Credit Hours: 3 Contact Hours: 4

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

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**HLS121 INTRO TO EMERGENCY MGT**

Credit Hours: 3 Contact Hours: 4

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:**

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**HLS122 INTELLIGENCE AND HOMELAND SEC**

Credit Hours: 3 Contact Hours: 4

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:**

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**HLS123 HOMELD DEF AND CRISIS MGT**

Credit Hours: 3 Contact Hours: 4

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:**



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#### **HLS123      HOMELD DEF AND CRISIS MGT**

Credit Hours: 3    Contact Hours: 4

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:**

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#### **HLS220      WEAPONS OF MASS DESTRUCTN AWAR**

Credit Hours: 3    Contact Hours: 4

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

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#### **HLS221      TERRORISM AND HOMELAND DEFENSE**

Credit Hours: 3    Contact Hours: 4

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

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#### **HLS222      ORGAN RESPNS & NETWK CRIS RES**

Credit Hours: 3    Contact Hours: 4

This course will introduce students to policy, planning, and management issues that arise in preparing for and responding to disasters and emergencies and how different government agencies interact and network with each other to respond to crisis with success. The course will examine how the different government agencies and nonprofit organizations respond in concert to both natural and unnatural (i.e. terrorist, human-caused) disasters. The course will emphasize the role of human services organizations in providing assistance to people and communities affected by disasters in the immediate aftermath and for long-term recovery.

#### **Pre-reqs:**

HLS123



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#### **HLS223 CONFLICT MANAGEMENT**

Credit Hours: 3 Contact Hours: 4

This course will provide students with the fundamentals of conflict management in the work place and in intra-agency interactions. The course will focus on essential materials for facilitation and mediation techniques to manage conflict in the workplace and to manage successful team work. The course will lay out the effective ground rules for group interaction, practical methods for handling emotions when they arise in a group, and diagnostic approaches for identifying and solving problems that can undermine the group work.

#### **Pre-reqs:**

HLS123

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#### **HLS224 EMERG RESPONSE TO TERRORISM**

Credit Hours: 3 Contact Hours: 4

This course highlights threats to responders beyond those associated with more common emergency incidents. The course will highlight emergency responders with the understanding of the implications for modern threats of terrorist attack and proper procedures within the limits of safe and prudent response.

#### **Pre-reqs:**

HLS121

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#### **IMT121 INTERACTIVE MEDIA**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **IMT122 GRAPHIC ARTS DESIGN**

Credit Hours: 3 Contact Hours: 4

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:**



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#### **IMT122A      GRAPHIC ARTS DESIGN A**

Credit Hours: 1.5    Contact Hours: 2

Students successfully completing the Graphic Arts Design A (IMT122A) course will acquire a working knowledge of the concepts, components and composition necessary in the design of print media. They will learn effective communication through design, beginning with the concept and concluding with the finish product.

#### **Pre-reqs:**

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#### **IMT122B      GRAPHIC ARTS DESIGN B**

Credit Hours: 1.5    Contact Hours: 2

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

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#### **IMT125      3D GRAPHICS MODELING**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT129      DIGITAL AUDIO RECG AND EDITING**

Credit Hours: 3    Contact Hours: 4

Course covers a wide array of digital audio topics including: audio formats, microphone placement, mixing techniques for stereo and surround sound, sound effects, audio for video, audio web content, the development of new audio technology and digital audio editing. Upon completion, the student will be able to create and produce audio for all visual media, CD and DVD.

#### **Pre-reqs:**

IMT121

Can be Taken Concurrently



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#### IMT131 COLOR THEORY AND DESIGN

Credit Hours: 3 Contact Hours: 4

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:**

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#### IMT132 DIGTL PHOTOGRAPHY/GRAPHIC&MEDIA

Credit Hours: 3 Contact Hours: 4

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.

**Pre-reqs:**

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#### IMT133 TECHNICAL ILLUSTRATIONS

Credit Hours: 3 Contact Hours: 4

This course expands upon basic 3D texturing techniques and visual effects needed to produce high-quality 3D graphics. Students will learn how to produce complex materials using mapping channels and work with high-resolution textures. To complement the complex materials, the class explores the process of UV "unwrapping" highly-detailed 3D models to make use of these textures. Particle Systems will also be introduced, allowing the creation of environmental effects such as smoke, fire, and clouds.

**Pre-reqs:**

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#### IMT134 TECHNICAL MUSICIANSHIP

Credit Hours: 3 Contact Hours: 4

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



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#### **IMT135 MUSIC THEORY AND COMPOSITION I**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **IMT136 PRINCIPLES OF ANIMATION**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **IMT137 DRAWING BASICS**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **IMT223 DIGITAL VIDEO RECORDING & EDIT**

Credit Hours: 3 Contact Hours: 4

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.

**Pre-reqs:**

IMT121



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#### **IMT224 FILM PRODUCTION THEORYPRACT**

Credit Hours: 3 Contact Hours: 4

This course 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.

#### **Pre-reqs:**

IMT223

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#### **IMT225 MOTION GRAPHICS PORTFOLIO**

Credit Hours: 3 Contact Hours: 4

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:**

IMT237

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#### **IMT227 3D GRAPHICS ANIMATION**

Credit Hours: 3 Contact Hours: 4

Students learn to create and render animations in a 3D development environment while exploring basic concepts such as Basic Keyframing, Curve Editors, and Object Hierarchy. Upon completion, the student will understand more advanced techniques such as the use of Constraints/Controllers, Bones Systems, and Facial Animation.

#### **Pre-reqs:**

IMT136

And IMT125

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#### **IMT228 ADV 3D DESIGN GRAPHIC ANIMATON**

Credit Hours: 3 Contact Hours: 4

This course covers the design aspects and processes of 3D development as well as advanced concepts such as dynamics. Demonstrations and hands-on practice will reinforce the concepts. Upon completion the students will be able to hone the skills learned in previous classes to create a final practicum project.

#### **Pre-reqs:**

IMT227





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#### **IMT228      ADV 3D DESIGN GRAPHIC ANIMATON**

Credit Hours: 3    Contact Hours: 4

This course covers the design aspects and processes of 3D development as well as advanced concepts such as dynamics. Demonstrations and hands-on practice will reinforce the concepts. Upon completion the students will be able to hone the skills learned in previous classes to create a final practicum project.

#### **Pre-reqs:**

And IMT240

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#### **IMT230      WEBCASTING AND MUSIC PUBLISHNG**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT233      ADV TEXTURES AND EFFECTS**

Credit Hours: 3    Contact Hours: 4

This course expands upon basic 3D texturing techniques and visual effects needed to produce high-quality 3D graphics. Students will learn how to produce complex materials using mapping channels and work with high-resolution textures. To complement the complex materials, the class explores the process of UV "unwrapping" highly-detailed 3D models to make use these textures. Particle Systems will also be introduced, allowing the creation of environmental effects such as smoke, fire, and clouds.

#### **Pre-reqs:**

IMT249

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#### **IMT237      COMPOSITING**

Credit Hours: 3    Contact Hours: 4

Students learn how to create special effects using the green screen, mattes, alpha channels and masks, using special effects software. Upon completion, students will be able to effectively create special effects in various formats. Students will gain these skills through a series of labs and projects utilizing Adobe After Effects.

#### **Pre-reqs:**

IMT223

Or IMT125



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#### **IMT238      ADVANCED VIDEO PRODUCTION**

Credit Hours: 3    Contact Hours: 4

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.

#### **Pre-reqs:**

IMT242

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#### **IMT239      MUSIC SYNTHESIS I**

Credit Hours: 3    Contact Hours: 4

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:**

IMT247

And IMT129

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#### **IMT240      ADVANCED 3D GRAPHIC MODELING**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT242      LIGHTING AND CINEMATOGRAPHY**

Credit Hours: 3    Contact Hours: 4

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



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#### **IMT243      ADVANCED COMPOSITING**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT244      DIGITAL PAGE LAYOUT AND DESIGN**

Credit Hours: 3    Contact Hours: 4

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 IMT253

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#### **IMT245      GRAPHIC ARTS DESIGN II**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT246      APPLIED MUSIC TECHNOLOGY**

Credit Hours: 3    Contact Hours: 4

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:**



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#### **IMT246      APPLIED MUSIC TECHNOLOGY**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT247      MUSIC THEORY COMPOSITION II**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT248      MUSIC TECHNOLOGY PRACTICUM**

Credit Hours: 1    Contact Hours: 2

The presentation of music, video and mixed media applications will prepare the student to create a working portfolio to aid in the obtainment of employment. Students are required to present 5 pieces over the course of the semester to be critiqued and analyzed by their peers and instructors. This course is presented in a theatre style environment with formal rules of theatric engagement.

#### **Pre-reqs:**

IMT239

And IMT246

Can be Taken Concurrently

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#### **IMT249      TEXTURES FOR 2D AND 3D**

Credit Hours: 3    Contact Hours: 4

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



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#### IMT250 MUSIC TECHNOLOGY

Credit Hours: 3 Contact Hours: 4

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

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#### IMT251 AUTHORIZING AND VIDEO COMPRESSION

Credit Hours: 3 Contact Hours: 4

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:

IMT223

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#### IMT253 GRAPHIC FOR ILLUSTRATION

Credit Hours: 3 Contact Hours: 4

Students will learn how to develop basic illustrations and line art using Adobe Illustrator. Labs focus on drawing and creating logos, print and web graphics, industrial devices and medical illustrations.

#### Pre-reqs:

IMT122

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#### IMT254 PORTFOLIO DEVELOPMENT-IMT

Credit Hours: 3 Contact Hours: 4

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



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#### IMT255      ADVANCED ILLUSTRATION

Credit Hours: 3    Contact Hours: 4

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:

IMT253

Or    ECA243

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#### IMT256      DIGITAL IMAGING

Credit Hours: 3    Contact Hours: 4

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

Can be Taken Concurrently

And    IMT132

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#### IMT257      ADVANCE RENDERING

Credit Hours: 3    Contact Hours: 4

This two-part course explores the contrast and relationship between photo-realistic and real-time 3D rendering technologies. The first half of the course focuses on such things as raytracing and indoor/outdoor lighting simulations, while the last turns to optimization and enhancement for real-time usage or gaming.

##### Pre-reqs:

IMT249

Can be Taken Concurrently

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#### IMT258      3D PRODUCTION PRACTICUM

Credit Hours: 3    Contact Hours: 4

This course provides a hands-on, real-world approach to teaching the methods of 3D production and how multiple 3D technologies adjoin to form a singular project. This course also explores the hidden aspects of production such as creating concept art, scripting, and storyboarding.

##### Pre-reqs:



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#### **IMT258 3D PRODUCTION PRACTICUM**

Credit Hours: 3 Contact Hours: 4

This course provides a hands-on, real-world approach to teaching the methods of 3D production and how multiple 3D technologies adjoin to form a singular project. This course also explores the hidden aspects of production such as creating concept art, scripting, and storyboarding.

#### **Pre-reqs:**

IMT240

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#### **IMT259 MUSIC SYNTHESIS II**

Credit Hours: 3 Contact Hours: 4

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

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#### **IMT260 LIVE SOUND**

Credit Hours: 3 Contact Hours: 4

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

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#### **IMT261 ADVANCED MUSIC TECHNOLOGY**

Credit Hours: 3 Contact Hours: 4

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



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#### **IMT262      ADVANCED DIGITAL PHOTOGRAPHY**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT263      PHOTOGRAPHIC LIGHTING**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT264      IMAGE MANAGMENT**

Credit Hours: 3    Contact Hours: 4

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

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#### **IMT265      MOTION GRAPHICS PORTFOLIO**

Credit Hours: 3    Contact Hours: 4

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:**

IMT237





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## Information Tech

### Computer Security

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#### **IMT266 FILM THEORY AND PRACTICE**

Credit Hours: 3 Contact Hours: 4

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:**

IMT223

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#### **IMT267 FILM SCORING & AUDIO FOR VIDEO**

Credit Hours: 3 Contact Hours: 4

This class is an introduction to the art of film music and score composition, including an overview of the history and development of film music and the various functions of music within a visual production. Also covered are orchestration techniques, writing for different instrument groupings, thematic development, and electronic film scores. Technical aspects of sound design for video are also covered, including Foley and sound effects, and all aspects of audio post-production, including sound cleanup, EQ, compression, and ADR.

##### **Pre-reqs:**

IMT134

And IMT223

And IMT239

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#### **IMT268 ADVANCED VIDEO EDITING**

Credit Hours: 3 Contact Hours: 4

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 program. The course will introduce advanced methods of editing and effects for the students, including multi-camera editing, color correction, and transitions.

##### **Pre-reqs:**

IMT129

And IMT237



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## Information Tech

### Computer Security

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#### **NET120 PC UPGRADING AND MAINTENANCE**

Credit Hours: 3 Contact Hours: 4

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:**

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#### **NET121 INTRO TO COMP NETWORKING**

Credit Hours: 3 Contact Hours: 4

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.

#### **Pre-reqs:**

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#### **NET131 MICROSOFT CLIENT OPERATING SYS**

Credit Hours: 3 Contact Hours: 4

Course includes installing and administering the Windows Operating Systems. It also covers security issues, installation troubleshooting, desktop issues, and desktop configuration.

#### **Pre-reqs:**

ECA145

Or ECA146

Or NET120

Or NET121



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## Information Tech

### Computer Security

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#### **NET134 CCNA PHASE I**

Credit Hours: 2 Contact Hours: 3

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

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#### **NET135 CCNA PHASE II**

Credit Hours: 2 Contact Hours: 3

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

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#### **NET220 UNIX/LINUX OPERATING ENVIRONMT**

Credit Hours: 3 Contact Hours: 4

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:**

MTH101

Or Test & Score: ACT Math - 20

Or Test & Score: Compass Algebra - 042



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## Information Tech

### Computer Security

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#### **NET244      MICROSOFT NETWORKING I**

Credit Hours: 3    Contact Hours: 4

Course includes planning, implementing, managing, and maintaining a Windows 2003 Network Infrastructure. Topics include DHCP, DNS, routing and remote access, TCP/IP addressing, and networking monitoring.

#### **Pre-reqs:**

NET120

And NET121

Or ECA145

Or ECA146

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#### **NET245      MICROSOFT NETWORKING II**

Credit Hours: 3    Contact Hours: 4

Course covers the topics required to gather and analyze business requirements for a secure network infrastructure and design. Students design a solution that meets those requirements(costs, security, hardware, software, licensing and resources) using a Windows 2003 network infrastructure.

#### **Pre-reqs:**

NET244

Or ECA244

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#### **NET246      MICROSOFT NETWORKING III**

Credit Hours: 3    Contact Hours: 4

Course thoroughly covers both the logical and physical structures of Active Directory and Exchange Server. Some of the topics covered and accomplished during lecture time and lab time are the installation of Exchange Server, Active Directory, DNS, and dhcp. Students create and maintain user accounts and group policies on their own domains.

#### **Pre-reqs:**

NET244

Or ECA244



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## Information Tech

### Computer Security

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#### **NET250 CCNA PHASE III AND IV**

Credit Hours: 4 Contact Hours: 5

This course will cover switching, virtual LANS (VLAN), LAN design, IGRP, Novell IPX, network management, WAN design, ISDN, and frame relays in a cisco system lab environment. CTAG CTIT007 approved Spring 2012.

#### **Pre-reqs:**

NET135

Or ECA135

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#### **NET251 VOICE OVER IP FUNDAMENTLS**

Credit Hours: 3 Contact Hours: 4

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:**

NET135

Or ECA135

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#### **NET252 NETWORK MANAGEMENT**

Credit Hours: 3 Contact Hours: 4

This course provides familiarity with the technology and techniques essential to managing and monitoring network systems and infrastructure. Students will be introduced to software packages that monitor for and alert on network failures, produce performance tracking reports, and diagnose infrastructure wide outages. Students will obtain an understanding of Simple Network Management Protocol as well as firsthand experience in its architecture and deployment.

#### **Pre-reqs:**

NET135

And NET220

Or ECA135

Or ECA277



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## Information Tech

### Computer Security

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#### **NET253 SEC NTWK SWITCH AND ROUTERS**

Credit Hours: 3 Contact Hours: 4

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:**

ECA135

Or NET135

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#### **NET254 CISCO WIRELESS**

Credit Hours: 3 Contact Hours: 4

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:**

NET135

Or ECA135

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#### **NET260 MACSERVER ESSENTIALS**

Credit Hours: 3 Contact Hours: 4

This course covers essential topics required for an entry-level system administrator or technical coordinator responsible for managing a Mac based network. Topics covered include the installation of the Mac OS, user management, network service configuration and basic troubleshooting techniques. Interfacing of Mac client systems with the server is also covered.

#### **Pre-reqs:**

NET220

Or ECA277



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## Information Tech

### Computer Security

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#### **NET264      UNIX/LINUX SYS ADMIN**

Credit Hours: 3    Contact Hours: 4

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:**

NET220

Or    ECA277

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#### **NET265      UNIX/LINUX SHELL SCRIPTING**

Credit Hours: 3    Contact Hours: 4

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:**

NET220

Or    ECA277

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#### **NET266      UNIX/LINUX NETWORK ADMIN**

Credit Hours: 3    Contact Hours: 4

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:**

NET220

Or    ECA277



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## Information Tech

### Computer Security

#### **NET280 WEB SERVER ADMINISTRATION**

Credit Hours: 3 Contact Hours: 4

This course covers the installation and configuration of the Apache web server and the server hardware 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:**

NET264

Or NET266

Or ECA274

Or ECA276

#### **NET281 FIREWALL AND NETWORK SECURITY**

Credit Hours: 3 Contact Hours: 4

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:**

NET135

Or ECA135

## Education and Human Serv

### Social Sciences

#### **SWK131 EXPLRG THE HUMAN & SOCIAL PROF**

Credit Hours: 1 Contact Hours: 1

This course provides an overview of the profession of Human Services. Students will also develop skills and knowledge for college success. This course is for first year Human and Social Service majors.

#### **Pre-reqs:**

## Education





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**Education and Human Serv****Education**

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**ASL121 INTR TO DEAF CULTURE COMMUNITY**

Credit Hours: 3 Contact Hours: 3

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 Disabilities Act laws. Five observation hours are required.

**Pre-reqs:**

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**ASL122 AMERICAN SIGN LANGUAGE I**

Credit Hours: 3 Contact Hours: 3

This course is the first in a series of three courses. This course is designed to provide an introduction to American Sign Language (ASL) and its history, focus on basic communication skills, focus on principles of ASL. Students will practice using receptive and expressive skills. Ten observation hours are required.

**Pre-reqs:**

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**ASL123 INTRODUCTION TO INTERPRETING**

Credit Hours: 3 Contact Hours: 3

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:**

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**ASL124 AMERICAN SIGN LANGUAGE II**

Credit Hours: 3 Contact Hours: 3

This course is the second in a series of three courses. This course acclimates the student to the visual/gestural modality of American Sign Language. Students will utilize a practical approach to teach vocal, grammar, and cultural aspects through the daily practice of expressive and receptive skills. Ten observation hours are required.

**Pre-reqs:**

ASL122



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## Education and Human Serv

### Education

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#### **ASL125      FINGERSPELLING**

Credit Hours: 2   Contact Hours: 2

This course will offer students an opportunity to develop their receptive and expressive fingerspelling. Basic proficiency of the American Manual Alphabet and Numbers used in conversational settings will be taught. Five observation hours required.

#### **Pre-reqs:**

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#### **ASL221      AMERICAN SIGN LANGUAGE III**

Credit Hours: 3   Contact Hours: 3

This course will provide students with more opportunities to expand their ability to produce and comprehend the language as used in every day conversational settings. Ten observation hours are required.

#### **Pre-reqs:**

ASL124

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#### **EDU121      INTRO EARLY CHILDHOOD EDUC**

Credit Hours: 3   Contact Hours: 3

This course introduces the field of early childhood education and child care history, philosophies, goals, practices and professional affiliation; explores the range of prekindergarten programs, as well as examines career opportunities, qualification, and the role of the educator/caregiver. Observation and recording of infant/child behavior are also introduced. Fifteen observation hours are required.

#### **Pre-reqs:**

ENG101

Or   ENG105

Or   ENG124

Or   Test & Score: Compass English - 070

Or   Test & Score: ACT Composite - 22

Or   Test & Score: ACT English - 18



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## Education and Human Serv

### Education

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#### **EDU122 CURRICULUM DESIGN AND INS**

Credit Hours: 3 Contact Hours: 3

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 field observation hours required.

##### **Pre-reqs:**

EDU121

Or ECE121

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#### **EDU123 HEALTH AND NUTRITION**

Credit Hours: 3 Contact Hours: 3

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:**

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#### **EDU124 INFANT TODDLER CURRICULUM**

Credit Hours: 2 Contact Hours: 2

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 are required.

##### **Pre-reqs:**

PSY125

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#### **EDU125 CHLDRN W PHYSICAL DISABILTIES**

Credit Hours: 3 Contact Hours: 3

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 field observation hours are required.

##### **Pre-reqs:**



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## Education and Human Serv

### Education

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#### **EDU126 EDUCATIONAL TECHNOLOGY**

Credit Hours: 3 Contact Hours: 3

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. TAG approved OED002 effective Spring 2011.

#### **Pre-reqs:**

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#### **EDU127 INFANT AND TODDLER GROUP CARE**

Credit Hours: 3 Contact Hours: 3

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 cognitive development.

#### **Pre-reqs:**

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#### **EDU221 LANGUAGE ARTS**

Credit Hours: 3 Contact Hours: 3

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 field observation hours required.

#### **Pre-reqs:**

EDU122

Or ECE122

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#### **EDU222 CREATIVE MAT/GUIDE PLAY**

Credit Hours: 3 Contact Hours: 3

Examines a comprehensive, caring, and developmentally-appropriate approach to guiding children's personal and social development. Emphasis is placed on a guidance approach to discipline. Designing and applying developmentally appropriate creative materials and activities are explored. Ten field observation hours required.

#### **Pre-reqs:**

EDU122



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## Education and Human Serv

### Education

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#### **Pre-reqs:**

Or ECE122

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#### **EDU223 COMMUNITY & FAM BASED PR**

Credit Hours: 3 Contact Hours: 3

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 (5) volunteer/observation hours are required.

#### **Pre-reqs:**

EDU121

Or ECE121

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#### **EDU224 EARLY CHILDHOOD PROG ADM**

Credit Hours: 3 Contact Hours: 3

Examines key aspects of starting and operating various types of early childhood programs. Policies/procedures, legalities, supervision, finances, planning and organizing, and personnel management are emphasized.

#### **Pre-reqs:**

EDU121

Or ECE121

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#### **EDU225 THE EXCEPTIONAL CHILD**

Credit Hours: 3 Contact Hours: 3

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 field observation hours required. TAG approved OED004.

#### **Pre-reqs:**



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## Education and Human Serv

### Education

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#### **EDU225 THE EXCEPTIONAL CHILD**

Credit Hours: 3 Contact Hours: 3

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##### **Pre-reqs:**

EDU221

And EDU222

Or EDU130

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#### **EDU226 WRAP-AROUND PROGRAMS**

Credit Hours: 2 Contact Hours: 2

An examination of public school-age programs designed to "wrap around" the child: before and after school care, summer care, sick child care and other emerging programs. Five field observation hours required.

##### **Pre-reqs:**

EDU121

Or ECE121

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#### **EDU227 EARLY CHLD ED TECH PRACTICUM**

Credit Hours: 3 Contact Hours: 3

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:**

EDU222

Or ECE222



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## Education and Human Serv

### Education

#### **EDU228 PHONICS FOR YOUNG CHILDREN**

Credit Hours: 3 Contact Hours: 3

Explores the theory and role of phonics and phonemics awareness as well as current research regarding phonics instruction. Five observation hours are required.

#### **Pre-reqs:**

EDU221

Or ECE221

#### **EDU229 EDUCATIONAL PSYCHOLOGY**

Credit Hours: 3 Contact Hours: 3

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 are required. TAG OED003 approved Spring 2012.

#### **Pre-reqs:**

#### **EDU230 CHILDN W SOCIOEMOTINAL EXCEPT**

Credit Hours: 3 Contact Hours: 3

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 field observation hours are required.

#### **Pre-reqs:**

### Human Services

#### **CDC121 CHEM DEP:ASSESSMT AND TRTMT PL**

Credit Hours: 3 Contact Hours: 3

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:**



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## Education and Human Serv

### Human Services

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#### **Pre-reqs:**

SWK125

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#### **CDC122      FUND OF CHEM DEP PRACT I**

Credit Hours: 3    Contact Hours: 3

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

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#### **CDC221      CHEM DEPENDNCY AND THE FAM**

Credit Hours: 3    Contact Hours: 3

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

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#### **CDC222      FUND OF CHEM DEP PRACT II**

Credit Hours: 3    Contact Hours: 3

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. Students 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





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**Education and Human Serv****Human Services**

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**CDC223      CHEMICAL DEPENDENCY AND PREVNT**

Credit Hours: 1    Contact Hours: 1

This course provides specific content in preventing and delaying the onset of alcohol and other addictive substance use, abuse, and dependency. Students learn prevention strategies and programs that help individuals, families, and communities promote safe and healthy behavior and lifestyles.

**Pre-reqs:**

SWK125

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**CDC224      CHEMICAL DEPENDENCY AND ETHICS**

Credit Hours: 1    Contact Hours: 1

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

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**PSD101      STUDENT SUCCESS EDUC & HS**

Credit Hours: 1    Contact Hours: 2

The Student Success Skills course is designed to aid students in gaining skills necessary for success in both academic and other life settings. Topics include learning styles, critical thinking, time management, study and test-taking techniques, communication and relationship-building skills, college resource exploration, and a variety of personal development strategies. The course also encourages the development of social skills and fosters a connection with classmates at SSCT and the division. Upon completion of this course, students should be able to incorporate into their program or certificate the tools and skills necessary to be academically and professionally

**Pre-reqs:**

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**SWK121      INTRO TO SOCIAL WELFARE**

Credit Hours: 3    Contact Hours: 3

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. TAG OSS030 approved Spring 2012.

**Pre-reqs:**



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**Education and Human Serv****Human Services**

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**SWK124 METHODS IN PRACTICE I**

Credit Hours: 3 Contact Hours: 3

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

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**SWK125 SUBSTANCE ABUSE**

Credit Hours: 3 Contact Hours: 3

Examination 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.

**Pre-reqs:**

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**SWK126 HUMAN BEHAVIOR & SOC ENV**

Credit Hours: 3 Contact Hours: 3

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:**

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**SWK127 GROUP PROCESSES**

Credit Hours: 3 Contact Hours: 3

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:**



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## Education and Human Serv

### Human Services

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#### **SWK130 METHODS IN PRACTICE II**

Credit Hours: 3 Contact Hours: 3

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

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#### **SWK224 POVERTY IN THE US**

Credit Hours: 3 Contact Hours: 3

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 discussed.

#### **Pre-reqs:**

SOC121

Or SWK121

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#### **SWK225 VICTIM AND CRISIS INTERVENTION**

Credit Hours: 3 Contact Hours: 3

Course provides students with the basic understanding of victimization and theories and practice of intervention. Issues such as risk factors, legal issues, intervention strategies of child abuse, spousal abuse, elder abuse and co-dependency will be introduced.

#### **Pre-reqs:**

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#### **SWK226 SOCIAL SERVICE LAW**

Credit Hours: 3 Contact Hours: 3

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:**



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## Education and Human Serv

### Human Services

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#### **SWK227      SOCIAL SERVICE PRACTICUM**

Credit Hours: 2    Contact Hours: 14

Individual placement in selected human and social service agencies for educationally-supervised work experience. Students will be required to develop a practicum plan and maintain a log/notebook of the practicum experience.

#### **Pre-reqs:**

SWK228

Can be Taken Concurrently

Or SWK124

Or SWK224

Or SWK126

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#### **SWK228      PRACTICUM SEMINAR**

Credit Hours: 1    Contact Hours: 1

Review and discussion of experiences and issues encountered in the social service practicum. Survey of career opportunities in the field of Human and Social Service. Taken concurrently with the Social Service Practicum.

#### **Pre-reqs:**

SWK227

Can be Taken Concurrently

And SWK124

And SWK224

And SWK126

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#### **SWK230      SOCIAL SERV FOR ELDERLY**

Credit Hours: 3    Contact Hours: 3

Presents 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 relatives. 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.

#### **Pre-reqs:**



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## Education and Human Serv

### Human Services

#### **SWK231 HUMAN & SOCIAL SERVICE PRAC/SEM**

Credit Hours: 3 Contact Hours: 15

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:**

SWK224

And SWK126

### Criminal Justice

#### **CJS120 INTRO TO LAW ENFORCEMENT**

Credit Hours: 3 Contact Hours: 3

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

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

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:**



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**Education and Human Serv****Criminal Justice**

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**CJS122 CRIMINAL LAW AND PROCEDURES**

Credit Hours: 3 Contact Hours: 4

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:**

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**CJS123 FIREARM TECHNIQUES**

Credit Hours: 3 Contact Hours: 4

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.

**Pre-reqs:**

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**CJS124 POLICING**

Credit Hours: 3 Contact Hours: 3

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

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**CJS125 REPORT WRITING**

Credit Hours: 1 Contact Hours: 1

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.

**Pre-reqs:**



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**Education and Human Serv****Criminal Justice**

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**CJS126 DEFENSIVE DRIVING**

Credit Hours: 2 Contact Hours: 3

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.

**Pre-reqs:**

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**CJS127 SELF DEFENSE I**

Credit Hours: 3 Contact Hours: 4

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.

**Pre-reqs:**

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**CJS128 HUMAN RELATIONS I**

Credit Hours: 3 Contact Hours: 3

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:**

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**CJS129 CORRECTIONS**

Credit Hours: 3 Contact Hours: 3

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



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**Education and Human Serv****Criminal Justice**

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**CJS221 CRIMINOLOGY**

Credit Hours: 3 Contact Hours: 3

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

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**CJS222 CRIMINAL LAW IN THE US**

Credit Hours: 3 Contact Hours: 3

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

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**CJS227 CRIMINAL JUSTICE PRACT AND SEM**

Credit Hours: 3 Contact Hours: 15

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

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**CJS230 PATROL ADMINISTRATION**

Credit Hours: 3 Contact Hours: 3

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.

**Pre-reqs:**





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**Education and Human Serv****Criminal Justice**

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**CJS231      TRAFFIC ENFORCEMENT**

Credit Hours: 3    Contact Hours: 3

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.

**Pre-reqs:**

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**CJS232      CIV DISORDRS AND HOMELND SEC**

Credit Hours: 2    Contact Hours: 2

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:**

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**CJS233      STANDARD FIRST AID**

Credit Hours: 1    Contact Hours: 1

This course is part of the Ohio Peace Officer's Basic Training curriculum and focuses on standard first aid practices and procedures.

**Pre-reqs:**

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**CJS234      CRIMINAL INVESTIGATION**

Credit Hours: 3    Contact Hours: 3

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:**



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**Education and Human Serv****Criminal Justice**

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**CJS235 SELF DEFENSE II**

Credit Hours: 3 Contact Hours: 3

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:**

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**CJS236 HUMAN RELATIONS II**

Credit Hours: 3 Contact Hours: 3

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:**

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**PLS121 INTRO TO PARALEGAL STUDIES**

Credit Hours: 3 Contact Hours: 3

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:**

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**PLS122 CIVIL LITIGATION**

Credit Hours: 3 Contact Hours: 3

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



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## Education and Human Serv

### Criminal Justice

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#### **PLS123      LEGAL ETHICS**

Credit Hours: 3    Contact Hours: 3

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:**

PLS121

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#### **PLS221      TORTS AND PERSONAL INJURY LAW**

Credit Hours: 3    Contact Hours: 3

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:**

PLS122

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#### **PLS222      FAMILY LAW**

Credit Hours: 3    Contact Hours: 3

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

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#### **PLS223      REAL ESTATE LAW**

Credit Hours: 3    Contact Hours: 3

This course focuses on real estate law, with an emphasis on the paralegal's roles and responsibilities in the area of real estate practice and litigation. Topics include conveyances of title, leases, purchase agreements, promissory notes and mortgages, surveys, and title insurance.

#### **Pre-reqs:**



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## Education and Human Serv

### Criminal Justice

#### **PLS224 CRIM LAW AND PROC FOR PARALGL**

Credit Hours: 3 Contact Hours: 3

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

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:**

PLS221

### Education

#### **EDU128 RESPVE INFANT AND TODDLER EMV**

Credit Hours: 3 Contact Hours: 3

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.

#### **Pre-reqs:**

#### **EDU130 INTRO TO THE TEACHING PROFESSN**

Credit Hours: 3 Contact Hours: 3

This survey course is an introduction to the teaching profession. Students engages 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 are required.

#### **Pre-reqs:**

ENG105



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## Education and Human Serv

### Education

#### **EDU130 INTRO TO THE TEACHING PROFESSN**

Credit Hours: 3 Contact Hours: 3

This survey course is an introduction to the teaching profession. Students engages 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 are required.

#### **Pre-reqs:**

Or Test & Score: ACT English - 18

Or Test & Score: Compass English - 070

#### **EDU231 EARLY CHLDHD EDUC ADM PRAC SEM**

Credit Hours: 3 Contact Hours: 15

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

## Sciences

### Natural Sciences

#### **BIO101 INTRO TO ANAT AND PHYSIO**

Credit Hours: 3 Contact Hours: 3

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. Ohio Transfer Module Approved effective Autumn 2008.

#### **Pre-reqs:**

IDS102

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080



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## Sciences

### Natural Sciences

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#### **BIO101A INTRO TO ANAT AND PHYSIO A**

Credit Hours: 1.5 Contact Hours: 1.5

Introduction to Anatomy and Physiology provides an understanding of human structure and function of all body systems. Focus will be given to beginning chemistry principles, cells, and tissues. Module one covers chemistry and the following body systems (Integumentary, Musculoskeletal and Nervous control system). This course is for the student who has little or no background in human anatomy and physiology.

#### **Pre-reqs:**

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#### **BIO101B INTRO TO ANAT AND PHYSIO B**

Credit Hours: 1.5 Contact Hours: 1.5

Introduction to Anatomy and Physiology provides an understanding of human structure and function of all body systems. Focus will be given to beginning chemistry principles, cells, and tissues. Module two covers the following body systems (Endocrine, Cardiovascular, Lymphatic/Immune, Respiratory, Digestive and Urogenital). This course is for the student who has successfully completed BIO101A.

#### **Pre-reqs:**

BIO101A

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#### **BIO121 ANATOMY AND PHYSIOLOGY I**

Credit Hours: 4 Contact Hours: 5

The human body is presented as an integrative, homeostatic organism with emphasis on the underlying chemical and cellular processes necessary for proper functioning. The first course in a two-semester sequence examines the structure and function of basic histology, the integument, musculoskeletal system, and the central as well as somatic nervous system. The laboratory portion of the course includes extensive dissection of human cadavers as well as interactive computer simulations of physiological processes. TMNS Approved effective Autumn 2008.

#### **Pre-reqs:**

BIO127

Or Test & Score: HS Biology - 2

Or BIO101

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#### **BIO122 ANATOMY AND PHYSIOLOGY II**

Credit Hours: 4 Contact Hours: 5

Continued study of the human body focuses on the influence provided by the nervous and endocrine systems upon the cardiovascular, respiratory, renal, digestive and reproductive systems. Introductory immunology concepts are also included. The laboratory portion is similar to that presented in Anatomy & Physiology I with the addition of case study presentations which allow the student to contrast normal physiology with basic pathophysiology. TMNS Approved effective Autumn 2008.

#### **Pre-reqs:**



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## Sciences

### Natural Sciences

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#### **BIO122 ANATOMY AND PHYSIOLOGY II**

Credit Hours: 4 Contact Hours: 5

Continued study of the human body focuses on the influence provided by the nervous and endocrine systems upon the cardiovascular, respiratory, renal, digestive and reproductive systems. Introductory immunology concepts are also included. The laboratory portion is similar to that presented in Anatomy & Physiology I with the addition of case study presentations which allow the student to contrast normal physiology with basic pathophysiology. TMNS Approved effective Autumn 2008.

#### **Pre-reqs:**

BIO121

Or BIO123

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#### **BIO123 PRIN OF HUM STRUCT AND FUN**

Credit Hours: 5 Contact Hours: 7

A one-semester accelerated anatomy and physiology course which introduces the human body at the cellular, tissue, organ and system levels of organization with the emphasis on the relationships between each level. Laboratory includes dissection of the human cadaver and preserved mammalian organs.

#### **Pre-reqs:**

BIO101

Or BIO121

Or BIO127

Or Test & Score: HS Biology - 2

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#### **BIO124 HUMAN DISEASES**

Credit Hours: 3 Contact Hours: 3

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 - OHL004 effective Fall 2005.

#### **Pre-reqs:**

BIO122

Or BIO123



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## Sciences

### Natural Sciences

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#### **BIO125 MEDICAL TERMINOLOGY**

Credit Hours: 3 Contact Hours: 3

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- OHL005 effective Fall 2005.

**Pre-reqs:**

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#### **BIO126 SCIENCE/ENERGY AND THE ENV**

Credit Hours: 4 Contact Hours: 5

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:**

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#### **BIO126A SCIENCE,ENERGY AND THE ENV A**

Credit Hours: 2 Contact Hours: 2.5

This course examines major environmental and energy problems and evaluates possible solutions to those problems. Module One (BIO 126A) topics include human population growth, biodiversity, water and air pollution. Emphasis is placed on analytical thinking, problem solving, and cooperative learning as students examine environmental issues. Laboratory and field experiences reinforce the basic ecological principles.

**Pre-reqs:**

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#### **BIO126B SCIENCE,ENERGY AND ENV B**

Credit Hours: 2 Contact Hours: 2.5

This course examines major environmental and energy problems and evaluates possible solutions to those problems. Module One (BIO 126A) topics include human population growth, biodiversity, water and air pollution. Emphasis is placed on analytical thinking, problem solving, and cooperative learning as students examine environmental issues. Laboratory and field experiences reinforce the basic ecological principles.

**Pre-reqs:**

BIO126A





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## Sciences

### Natural Sciences

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#### BIO127 HUMAN BIOLOGY

Credit Hours: 4 Contact Hours: 6

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

#### Pre-reqs:

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#### BIO141 GENERAL BIOLOGY I

Credit Hours: 4 Contact Hours: 6

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, Biology I, effective Spring 2008.

#### Pre-reqs:

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#### BIO142 GENERAL BIOLOGY II

Credit Hours: 4 Contact Hours: 6

Continuation of BIO141. Topics include: the 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 a biological ecosystems, designing and reporting biological research. Supporting laboratory aligns with lectures topics and includes: Examination and dissection of representative organisms to show evolutionary progression, exploration of phylogenetic concepts and analysis, visiting and evaluating local ecosystems to identify population dynamics, and the effects of pollution. Students will complete the semester by designing a group research experiment and reporting the

#### Pre-reqs:

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#### BIO221 PRINC OF MICROBIOLOGY

Credit Hours: 4 Contact Hours: 6

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



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### Natural Sciences

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#### **BIO221 PRINC OF MICROBIOLOGY**

Credit Hours: 4 Contact Hours: 6

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:**

Or BIO141

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#### **BIO222 PHARMACOLOGY**

Credit Hours: 3 Contact Hours: 3

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

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#### **BST120 INTRO TO BIOTECHNOLOGY**

Credit Hours: 1 Contact Hours: 1

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:**

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#### **BST121 BASIC BIOTECHNOLOGY METHODS**

Credit Hours: 1 Contact Hours: 2

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:**



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## Sciences

### Natural Sciences

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#### **BST122      ADVANCED BIOTECHNOLOGY METHODS**

Credit Hours: 3    Contact Hours: 5

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:**

BST121

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#### **BST130      BIOTECHNOLOGY SEMINAR I**

Credit Hours: 1    Contact Hours: 1

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:**

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#### **BST220      MOLECULAR BIOLOGY TECHNIQUES**

Credit Hours: 4    Contact Hours: 6

Topics presented will cover naturally occurring molecular processes (repliation, transcription, translation, proofreading, splicing, etc.) in order to explain how they can be exploited in various ways to benefit the biotechnology industry. The laboratory portion of this course will use techniques that duplicate or manipulate these natural processes to explore the stepwise progression of isolating a gene through converting it into an important biologically active protein (includes nucleic acid and protein isolation and purification, PCR, as well as gene cloning, sequencing and expression studies).

#### **Pre-reqs:**

BST122

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#### **BST221      CELL AND TISSUE CULTURE**

Credit Hours: 2    Contact Hours: 4

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



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### Natural Sciences

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#### **BST222 CELLULAR AND SUBCELLULAR SEPTN**

Credit Hours: 4 Contact Hours: 6

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

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#### **BST225 BIOTECHNOLOGY INSTRUMENTATION**

Credit Hours: 3 Contact Hours: 5

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

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#### **BST230 BIOTECHNOLGY SEMINAR II**

Credit Hours: 1 Contact Hours: 1

Students will read, discuss and present articles associated with biotechnology. Students will also present the results of their individual research project as part of the requisite of this seminar course.

#### **Pre-reqs:**

BST130

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#### **BST240 BIOINFORMATICS**

Credit Hours: 3 Contact Hours: 5

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:**



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## Sciences

### Natural Sciences

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#### **BST250 BIOPROCESSES AND MANUFACTURING**

Credit Hours: 4 Contact Hours: 6

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

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#### **BST271 BIOTECHNOLOGY INDEPENDENT STDY**

Credit Hours: 1 Contact Hours: 3

Students will carry out an individual research project either on or off campus under guidance of an outside advisor or a faculty member. Goals of this research project will be discussed between the student and the advisor and will be agreed to before the start of the project. Results from this project will be presented in seminar form as part of the student's participation in BST230-Biotechnology Seminar II.

#### **Pre-reqs:**

BST220

And BST230

Can be Taken Concurrently

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#### **BST272 BIOTECHNOLOGY INDEPENDENT STDY**

Credit Hours: 2 Contact Hours: 6

Students will carry out an individual research project either on or off campus under guidance of an outside advisor or a faculty member. and the advisor and will be agreed to before the start of the project. Results from this project will be presented in seminar form as part of the student's participation in BST230-Biotechnology Seminar II.

#### **Pre-reqs:**

BST220

And BST230

Can be Taken Concurrently

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#### **BST273 BIOTECHNOLOGY INDEPENDENT STDY**

Credit Hours: 3 Contact Hours: 9

Students will carry out an individual research project either on or off campus under guidance of an outside advisor or a faculty member. Goals of this research project will be discussed between the student and the advisor and will be agreed to before the start of the project. Results from this project will be presented in seminar form as part of the student's participation in BST230-Biotechnology Seminar II.

#### **Pre-reqs:**



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## Sciences

### Natural Sciences

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#### **BST273 BIOTECHNOLOGY INDEPENDENT STDY**

Credit Hours: 3 Contact Hours: 9

Students will carry out an individual research project either on or off campus under guidance of an outside advisor or a faculty member. Goals of this research project will be discussed between the student and the advisor and will be agreed to before the start of the project. Results from this project will be presented in seminar form as part of the student's participation in BST230-Biotechnology Seminar II.

#### **Pre-reqs:**

BST220

And BST230

Can be Taken Concurrently

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#### **BST274 BIOTECHNOLOGY INDEPENDENT STDY**

Credit Hours: 4 Contact Hours: 12

Students will carry out an individual research project either on or off campus under guidance of an outside advisor or a faculty member. Goals of this research project will be discussed between the student and the advisor and will be agreed to before the start of the project. Results from this project will be presented in seminar form as part of the student's participation in BST230-Biotechnology Seminar II.

#### **Pre-reqs:**

BST220

And BST230

Can be Taken Concurrently

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#### **CHM243 BIOCHEMISTRY I**

Credit Hours: 3 Contact Hours: 3

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



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## Sciences

### Natural Sciences

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#### CHM244 BIOCHEMISTRY II

Credit Hours: 3 Contact Hours: 3

: 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 CO<sub>2</sub> fixation, genetics, structure of nucleic acids, replication, transcription and translation processes, gene expression, recombinant DNA technologies and mutations.

#### Pre-reqs:

CHM243

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#### CST120 COMPUTATIONAL SCIENCE METHODS

Credit Hours: 3 Contact Hours: 3

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:

MTH125

Can be Taken Concurrently

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#### CST121 MODELING AND SIMULATION

Credit Hours: 3 Contact Hours: 4

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:

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#### CST221 COMPUTATIONAL BIOLOGY

Credit Hours: 4 Contact Hours: 4

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



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## Sciences

### Natural Sciences

#### **CST274 INDEP STUDY-COMPUTATNL SCIENCE**

Credit Hours: 4 Contact Hours: 12

Students will carry out an individual research project either on or off campus under guidance of an outside advisor or a faculty member. Goals of this research project will be discussed between the student and the advisor and will be agreed to before the start of the project. Results from this project will be presented.

#### **Pre-reqs:**

CST221

### Physical Sciences

#### **BIO241 GENERAL GENETICS**

Credit Hours: 4 Contact Hours: 6

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.

#### **Pre-reqs:**

BIO141

#### **CHM101 INTRO TO CHEMISTRY**

Credit Hours: 4 Contact Hours: 4

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:**

Test & Score: Compass Algebra - 055

Or MTH123

Or Test & Score: ACT Math - 22





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## Sciences

### Physical Sciences

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#### **CHM121 GEN/ORG AND BIOL CHEMISTRY I**

Credit Hours: 4 Contact Hours: 5

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:**

CHM101

Or Test & Score: HS Chemistry - 2

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#### **CHM121A GEN, ORG AND BIOL CHEMISTRY IA**

Credit Hours: 2 Contact Hours: 3

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:**

CHM101

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#### **CHM121B GEN, ORG, AND BIO CHEMISTRY IB**

Credit Hours: 2 Contact Hours: 3

A broad overview of inorganic chemical principles. Topics include energy changes, gas laws, solubility, solutions and acids and bases. TMNS approved Spring 2012.

#### **Pre-reqs:**

CHM121A

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#### **CHM122 GEN, ORG AND BIOL CHEMISTRY II**

Credit Hours: 4 Contact Hours: 5

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



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## Sciences

### Physical Sciences

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#### CHM141 GENERAL CHEMISTRY I

Credit Hours: 5 Contact Hours: 7

broad overview of chemical principles and reactivity. Topics include atomic structure, chemical bonding and molecular structure, inorganic compounds, organic compounds, chemical periodicity, stoichiometry and nuclear chemistry. This course is Ohio TAG approved. OSC023 sequence & OSC008 Effective Summer 2008. OTM approved for TMS Spring 2011.

##### Pre-reqs:

CHM101

Or Test & Score: HS Chemistry - 2

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#### CHM141A GENERAL CHEMISTRY I A

Credit Hours: 2 Contact Hours: 3

A broad overview of chemical principles. Topics include significant figures, atomic structure, chemical bonding and molecular structure of inorganic compounds and stoichiometry. TMNS approved Spring 2012.

##### Pre-reqs:

CHM101

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#### CHM141B GENERAL CHEMISTRY I B

Credit Hours: 3 Contact Hours: 4

A broad overview of chemical principles. Topics include thermochemistry, reactivity, organic compounds, chemical periodicity and nuclear chemistry. TMNS approved Spring 2012.

##### Pre-reqs:

CHM141A

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#### CHM142 GENERAL CHEMISTRY II

Credit Hours: 5 Contact Hours: 7

A broad overview of chemical principles and reactivity. Topics include biochemistry, thermodynamics, chemical equilibrium, acid- based theories, solubility, electrochemistry, and chemical and biochemical kinetics. This course is Ohio TAG approved. OSC024 sequence & OSC009 Effective Summer 2008. Ohio Transfer Module Approved Spring 2012 TMNS.

##### Pre-reqs:



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## Sciences

### Physical Sciences

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#### CHM241 ORGANIC CHEMISTRY I

Credit Hours: 5 Contact Hours: 7

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

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#### CHM242 ORGANIC CHEMISTRY II

Credit Hours: 5 Contact Hours: 7

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

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#### PHY101 PRINCIPLES OF PHYSICS

Credit Hours: 4 Contact Hours: 5

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:

Test & Score: ACT Math - 22

Or MTH123

Or Test & Score: Compass Algebra - 054

And IDS102

Or Test & Score: ACT Reading - 19

Or Test & Score: Compass Reading - 080



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## Sciences

### Physical Sciences

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#### PHY121 COL PHYSICS I W ALG

Credit Hours: 4 Contact Hours: 5

Study of motion, force, momentum, energy, rotational dynamics and torque, centripetal force and gravity, structure and properties of matter, fluids, vibrations and waves. 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 on measurements 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:

MTH128

And MTH125

Or MTH126

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#### PHY121A COL PHYSICS IA W ALG

Credit Hours: 2 Contact Hours: 2.5

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:

MTH126

And MTH128

Or MTH126B

Or MTH125

Or MTH125B

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#### PHY121B COL PHYSIC I B W ALG

Credit Hours: 2 Contact Hours: 2.5

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



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## Sciences

### Physical Sciences

#### PHY122 COL PHYSICS II W ALG

Credit Hours: 4 Contact Hours: 5

Study of heat, electricity, magnetism (including circuits), electromagnetic radiation (including light), and optics. 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 on measurements in calculations and testing physical theories using measured data. TAG approved course- OSC021(not for Physics majors) effective Spring 2008. TAG approved course - OSC015 (not for Physics majors) effective Spring 2008.TMNS Approved effective Autumn 2008.

#### Pre-reqs:

PHY121

#### PHY221 GEN PHYSICS I W CALC

Credit Hours: 5 Contact Hours: 6

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.

#### Pre-reqs:

MTH223

And MTH224

Can be Taken Concurrently

#### PHY222 GEN PHYSICS II W CALC

Credit Hours: 5 Contact Hours: 6

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.

#### Pre-reqs:

PHY221

And MTH224

And MTH225

Can be Taken Concurrently

## Mathematics

### Mathematics



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## Mathematics

### Mathematics

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#### **MTH100 COLLEGE MATHEMATICS**

Credit Hours: 3 Contact Hours: 3

This course is designed to be a math course covering topics that are essential for students in any discipline. Topics to be covered are arithmetic, geometry, signed numbers, algebraic fractions, introductory algebra and solving equations.

#### **Pre-reqs:**

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#### **MTH101 INTRODUCTION TO ALGEBRA**

Credit Hours: 3 Contact Hours: 3

Topics to be covered are rates, ratios, measurements, data analysis, solving linear equations, graphs, exponents, and polynomials.

#### **Pre-reqs:**

MTH100

Or CAL103

Or Test & Score: ACT Math - 17

Or Test & Score: Compass Pre-Algebra - 041

Or Test & Score: Compass Algebra - 001

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#### **MTH123 INTERMEDIATE ALGEBRA**

Credit Hours: 3 Contact Hours: 3

Topics to be covered are absolute value equations and inequalities, equations of a line, systems of two and three linear equations, functions, factoring, operations and equations with rational expressions, rational exponents, operations and equations with radicals, complex numbers, and quadratic equations.

#### **Pre-reqs:**

MTH101

Or MTH103

Or Test & Score: ACT Math - 20

Or Test & Score: Compass Algebra - 042



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## Mathematics

### Mathematics

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#### MTH125 COLLEGE ALGEBRA

Credit Hours: 4 Contact Hours: 4

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 extrema, roots (zeros) and end-behavior of their respective graphs. Theory of equations including the Remainder and Factor Theorems, The Rational Root Theorem, and Descartes' Rule of Signs will be used for non-graphical analysis of 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

#### Pre-reqs:

MTH123

Or Test & Score: Compass Algebra - 055

Or Test & Score: ACT Math - 22

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#### MTH125A COLLEGE ALGEBRA A

Credit Hours: 2 Contact Hours: 2

Study of linear, quadratic and absolute value equations and inequalities, graphs of elementary functions and non-functions. TMM001 approved Spring 2012.

#### Pre-reqs:

MTH101

Or MTH103

Or Test & Score: ACT Composite - 22

Or Test & Score: ACT Math - 20

Or Test & Score: Compass Algebra - 042

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#### MTH125B COLLEGE ALGEBRA B

Credit Hours: 2 Contact Hours: 2

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



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## Mathematics

### Mathematics

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#### MTH126 PRECALCULUS

Credit Hours: 4 Contact Hours: 4

Students will analyze the graphs of rational functions by determining vertical, horizontal, and oblique asymptotes. They will study exponential and logarithmic functions including their graphs and applications. The laws of logarithms will be developed and applied to common logs, natural logs, change of base and the solution of logarithmic and exponential equations. Trigonometric functions will be introduced including right triangle trigonometry, functions of any angle, graphs of trigonometric ratios, and inverse trigonometric functions. Students will solve trigonometric identities and equations using sum, difference, double angle, half angle, product to sum and sum to product formulas. Applications

#### Pre-reqs:

MTH125

Or MTH121

Or Test & Score: ACT Math - 24

Or Test & Score: Compass Algebra - 067

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#### MTH126A PRECALCULUS A

Credit Hours: 2 Contact Hours: 2

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, product to sum and sum to product formulas and applications of trigonometric functions. TMM002 approved Spring 2012.

#### Pre-reqs:

MTH125

Or MTH125B

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#### MTH126B PRECALCULUS B

Credit Hours: 2 Contact Hours: 2

Exponential and logarithmic functions and equations, matrices and determinants and, conic sections. TMM002 approved Spring 2012.

#### Pre-reqs:

MTH126A





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## Mathematics

### Mathematics

#### **MTH128 BASIC TRIG (FOR SPEC AREAS)**

Credit Hours: 1 Contact Hours: 1

Study of angles and degree measure; radian measure; arc length and area; angular and linear velocity; trigonometric functions; right angle trigonometry; fundamental identity 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 application. TMMSL Approved effective Autumn 2008.

#### **Pre-reqs:**

MTH125

Can be Taken Concurrently

#### **MTH221 CONCEPTS OF CALCULUS**

Credit Hours: 3 Contact Hours: 3

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. TMMSL Approved effective Autumn 2008.

#### **Pre-reqs:**

MTH122

Or Test & Score: ACT Math - 27

Or Test & Score: Compass Algebra - 084

Or MTH126

#### **MTH222 STATISTICS**

Credit Hours: 3 Contact Hours: 3

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

#### **Pre-reqs:**

MTH121

Or MTH122

Or MTH125

Or Test & Score: ACT Math - 22

Or MTH123

Or Test & Score: Compass Algebra - 055



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## Mathematics

### Mathematics

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#### MTH222A STATISTICS A

Credit Hours: 1.5 Contact Hours: 1.5

Statistical techniques and methods; graphical and tabular presentation of data, descriptive statistical parameters, and probability concepts. TMM010 approved Spring 2012.

#### Pre-reqs:

Test & Score: ACT Composite - 22

Or MTH121

Or MTH100

Or MTH101

Or Test & Score: ACT Math - 16

Or Test & Score: Compass Pre-Algebra - 030

Or MTH103

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#### MTH222B STATISTICS B

Credit Hours: 1.5 Contact Hours: 1.5

Statistical distributions, sampling, estimation and hypotheses testing and correlation. TMM010 approved Spring 2012.

#### Pre-reqs:

MTH222A

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#### MTH223 ANALYTIC GEOMETRY-CAL I

Credit Hours: 4 Contact Hours: 4

Analytic geometry, limits, continuity, derivatives, tangent and normal lines, derivatives of trigonometric functions, related rates, Newton's method, Rolle's theorem, mean value theorem, extreme of functions, antiderivatives, definite integrals, indefinite integrals, areas and volumes. TMM005 Approved effective Autumn 2008.

#### Pre-reqs:

MTH122

Or Test & Score: ACT Math - 27

Or Test & Score: Compass Algebra - 084

Or MTH126



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## Mathematics

### Mathematics

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#### **MTH223A ANALYTIC GEOMETRY-CAL I A**

Credit Hours: 2 Contact Hours: 2

A study of analytic geometry, limits, continuity, derivatives, tangent and normal lines, derivatives of trigonometric functions, and related rates. TMM005 Approved effective Autumn 2008.

#### **Pre-reqs:**

MTH126B

Or MTH126

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#### **MTH223B ANALYTIC GEOMETRY AND CAL I B**

Credit Hours: 2 Contact Hours: 2

Newton's method, Rolle's theorem, mean value theorem, extreme of functions, antiderivatives, definite integrals, indefinite integrals, areas and volumes. TMM005 Approved effective Spring 2010.

#### **Pre-reqs:**

MTH223A

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#### **MTH224 ANAL GEOM & CALC II**

Credit Hours: 4 Contact Hours: 4

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

#### **Pre-reqs:**

MTH223

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#### **MTH225 ANALYTIC GEO & CALC III**

Credit Hours: 4 Contact Hours: 4

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

#### **Pre-reqs:**

MTH224



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### Mathematics

#### MTH226 LINEAR ALGEBRA

Credit Hours: 3 Contact Hours: 3

In this course students will study vectors in  $R^n$  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  $R^n$  along with proofs of theorems concerning rank and nullity. Students will explore linear transformations from  $R^n$  to  $R^m$  and gain an understanding of

#### Pre-reqs:

MTH126

#### MTH227 ORDINARY DIFFERENTIAL EQUAT

Credit Hours: 3 Contact Hours: 3

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.

#### Pre-reqs:

MTH224