STARK STATE COLLEGE

YEARS OF

Changing Lives and Building Futures

1960-2010

CATALOG 2010-2011

starkstate.edu

Stark State College

Ohio | Board of Regents

Ted Strickland, Governor
Eric D. Fingerhut, Chancellor

University System of Ohio

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

For most current class schedule: www.starkstate.edu

Welcome to Stark State College and the University System of Ohio

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

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

Open admission carries with it the full weight of equal opportunity for all, which means the College must make every effort to be sensitive and responsive to the needs of prospective students.

The open admission policy allows a student to enroll in the College, but not necessarily in a specific degree-granting program.

Normal admission to the College is open to anyone who is a high school graduate or the equivalent, completes the enrollment procedures, and pays the fees for admission. This is exclusive of academic record or placement testing results. This open door policy does not deny specific academic departments the right to require preliminary training or talent.

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

NOTE:

Stark State College reserves the right to make changes in offerings, requirements and regulations subsequent to the publication of the Catalog.

A student accepted into a specific associate degree 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 counseling from the appropriate department chair because requirements may change.

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 veterans' status.

Stark State College

Administrative Officers

John O'Donnell, PhD
President

Thomas A. Chiappini
Chief Operating Officer and Treasurer

Dorey Diab, PhD
Provost and Chief Academic Officer

John J. Kurtz
Vice President /Chief Information Officer

Cheryl A. Rice
Vice President for Student Services and Enrollment Management

Board of Trustees

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Kelly Zachary

Mission Statement

Stark State College provides high-value, student-centered associate degrees and professional development. The College is dedicated to individual learning, transferable higher education and career success. We advance quality of life through accessibility and business and community partnerships.

Vision Statement

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

Student Outcomes Assessment

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.

GENERAL LEARNING OUTCOMES 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, 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.

Table of Contents

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to ***www.starkstate.edu/policies***. Printed copies are available in the Office of Admissions/Student Services.

Stark State College Profile

Stark State College is committed to providing the best education possible to prepare our graduates for career success in a technologically-sophisticated 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, technology-based education at an affordable cost to the northeast Ohio region.

Our mission is to provide high-value, student-centered associate degrees and professional development. The College is dedicated to individual learning, transferable higher education and career success. We advance quality of life in our region through accessibility and business and community partnerships. Our vision is that Stark State College will be a first choice in higher education and a catalyst for economic growth.

With an enrollment of over 12,000 credit and 4,000 noncredit students, Stark State College is the largest of five colleges and universities in Stark County, and is the sixth largest of Ohio's 23 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. Well-trained employees spell success for employers, too!

The College offers over 200 associate degrees, options, one-year and career enhancement certificates in arts and sciences, business and entrepreneurial studies, engineering technologies, health sciences, information technologies and public service. Degrees awarded are the associate of arts, associate of science, associate of applied science, associate of applied business and associate of technical studies. The College also offers degrees in conjunction with Kent State University in associate of arts, associate of applied business and associate of science. A wide range of short-term career enhancement certificates help employees improve skills and gain a competitive edge in a society with rapidly-changing technology. Career enhancement certificates lead to associate degrees and one-year certificates in various fields of study.

AFFORDABLE, TRANSFERABLE EDUCATION

Students often get their start at Stark State College through its affordability and transferability. The associate of arts (A.A.) and the associate of science (A.S.) 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 A.A. and the A.S. degrees may be earned directly through Stark State College or through a partnership with Kent State University-Stark Campus that awards the degree jointly.

The A.A. and A.S. degrees are perfect 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. It is the perfect degree 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 four-year institution

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 smoothly move from associate degree programs into baccalaureate degree programs.

And, 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

Well-respected in the community, Stark State College plays a vital role in the economic growth and development of the region through its strong tradition of providing educational and training services to employers and residents. Through our Division of Corporate Services and Continuing Education, we provide customized contract training programs to area employers. The Division also offers a wide-range of continuing education courses, seminars and workshops to the community.

Community and business partnerships are vital to Stark State's success. A partnership with Rolls-Royce Fuel Cell Systems (US) Inc. resulted in the opening of the Fuel Cell Prototyping Center in 2006. This Center positions Stark State as a leader to support the research, development and commercialization of fuel cells. Stark State also works closely with other emerging technologies headquartered on our campus such as Defense Metals and Contained Energy.

STATE-OF-THE-ART FACILITIES

Serving the community is a strong part of Stark State's heritage. 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 rapid growth. A $9 million 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 and engineering technology majors. The Ralph Regula Wellness and Therapy Center is an educational center for students studying physical therapy assisting and occupational therapy assisting. The Automotive Technology Center, located off-campus at 5600 Whipple Ave. N.W., is a 40,000 square-foot facility housing the automotive and transportation technologies.

EXPERIENCED, CREDENTIALED FACULTY SERVE OUR DIVERSE STUDENTS

The average Stark State student fits the profile of the typical two-year college student in the nation: 57% of SSCT students are female; 62% attend college part time; 76% work while attending college; and 53% are the first generation in their families to attend college. The average age of Stark State's students is 27. The number of minority students at SSC has grown in recent years and today represents over 19% of total enrollment – higher than minority representation in Stark County.

The College has approximately 170 full-time faculty and, during peak enrollment, more than 450 adjunct faculty. More than 60% of the College's full-time faculty have masters degrees and 13% have doctorate degrees. The fact that many faculty 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 300 individuals representing more than 170 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 are also 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 and off-campus course sites are located in Alliance, Barberton, Carrollton, Downtown Canton, Massillon, Navarre, Plain Township, Portage Lakes and Uniontown/Hartville.

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to ***www.starkstate.edu/policies***. Printed copies are available in the Office of Admissions/Student Services.

Accreditations

STARK STATE COLLEGE IS ACCREDITED BY:

The Higher Learning Commission of the North Central Association of Colleges and Schools, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504; 312-263-0456 or 800-621-7440; ***www.ncahigherlearningcommission.org***

BUSINESS AND ENTREPRENEURIAL STUDIES DIVISION ACCREDITATIONS

AUTOMOTIVE TECHNOLOGY Accredited by the National Automotive Technicians Education Foundation (NATEF): National Automotive Technicians Education Foundation, 13505 Dulles Technology Drive, Suite 2, Herndon, VA 20171-3421; 703-713-0100; ***www.natef.org***

ACCOUNTING AND FINANCE TECHNOLOGY, ADMINISTRATIVE OFFICE TECHNOLOGY, MANAGEMENT AND MARKETING Accredited by the Association of Collegiate Business Schools and Programs, 7007 College Boulevard, Suite 420, Overland Park, KS 66211; 913-339-6226; info@acbsp.org; ***www.acbsp.org***

INFORMATION REPORTING TECHNOLOGY (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***

HEALTH SCIENCES DIVISION ACCREDITATIONS

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***

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 TECHNOLOGY 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

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

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

MEDICAL ASSISTING The Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon recommendation of the Medical Assisting Education Review Board (MAERB) of the AAMA: CAAHEP, 35 E. Wacker Drive, Suite 1970, Chicago, IL 60601-2208; 800-228-2262

OPHTHALMOLOGY ASSISTANT Accredited by the Committee on Accreditation for Ophthalmic Medical Personnel (CoA-OMP) who is sponsored by the Joint Commission on Allied Health Personnel in Ophthalmology, Inc. (JCAHPO Association of Technical Personnel in Ophthalmology (ATPO), Consortium of Ophthalmic Training Programs (COTP), 2025 Woodlane Drive, St. Paul, MN 55125-1992; 800-284-3937

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

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)

OCCUPATIONAL THERAPY ASSISTANT TECHNOLOGY 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.

PHYSICAL THERAPIST ASSISTANT TECHNOLOGY 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

RESPIRATORY CARE TECHNOLOGY The respiratory care technology program is accredited by the Committee on Accreditation for Respiratory Care (CoARC): 1248 Harwood Road, Bedford, TX 76021-4244; 817-283-2835; ***www.coarc.com***

ENGINEERING TECHNOLOGIES DIVISION ACCREDITATIONS

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***

PUBLIC SERVICES DIVISION ACCREDITATIONS

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***

E-LEARNING ACCREDITATION

Online degrees offered by Stark State College have been accredited by The Higher Learning Commission.

Admission to the College

All individuals interested in pursuing an education at Stark State College are welcome to apply for admission. A candidate working toward an associate degree should be a high school graduate or the equivalent (successful completion of the General Educational Development [GED] equivalency) to assure successful completion of the program. An application for admission may be obtained online or requested from the Office of Admissions/Student Services.

ADMISSION PROCEDURES

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

1. Submit an application form, which may be obtained at the College, from high school guidance counselors, or online at ***www.starkstate.edu***.
2. Provide the Academic Records/Registrar's Office with an official final transcript of your high school records and GED scores, if applicable. This may be done through the high school guidance office.
3. Provide the College with the results of the ACT or SAT testing program by requesting that they be sent directly to the College by the testing service. This requirement is waived for students in the continuing education (noncredit) program.
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 and math.
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 the 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 and at the written request of the student.

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 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.
3. Submit written approval from home institution to Stark State College Academic Records/Registrar's Office indicating the course(s) for enrollment. Bring approval form at time of registration.
4. 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. A score of 500 or greater on the written Test of English as a Foreign Language (TOEFL) or 173 on the Computer-Based Test is considered as adequate proof of language proficiency. 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, New Jersey 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.

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to ***www.starkstate.edu/policies***. Printed copies are available in the Office of Admissions/Student Services.

MYSTARKSTATE PORTAL AND BANNER SELF SERVICE

The ***my*starkstate** 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
- add and drop classes
- check on reason and status of holds
- check financial aid status and award amount
- pay tuition online with credit card or check
- change personal information
- request a transcript
- track status of documents submitted
- advisor and instructor information

The ***my*starkstate** portal is a service-oriented online 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 make elect to take COMPASS if they have ACT 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 the student's transcript after the student successfully completes 12 hours at Stark State College, if credit is awarded. Successful completion is defined as a "C" or better. Students 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/POST-SECONDARY ENROLLMENT OPTIONS (PSEO)

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 may also fulfill high school graduation requirements, if approved by the student's local school district.

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.

STARK COUNTY COLLEGE TECH PREP

College Tech Prep is an exciting approach used in high schools and colleges to prepare high school students for the growing number of technical jobs that will require highly-skilled technical workers in the future. These important, good-paying jobs will require more than a high school education. This means that many more young Americans will need to prepare to go to college – particularly into the technical programs that lead to an associate degree and beyond.

College Tech Prep expands options and opportunities with:

- a direct path to a college degree
- college credits earned while in high school
- scholarship opportunities
- team teaching and project-based instruction

At the end of high school, College Tech Prep graduates are ready to choose a technical major and enter an advanced skills technical college degree program with stronger basic and occupational skills than graduates of general education or college prep programs. There are also articulation agreements in place with many colleges and universities where students may earn college credits while in high school and/or may transfer credits earned for an associate degree toward a bachelor's degree.

The Stark County College Tech Prep Consortium partners all public school districts in Stark County with numerous colleges and universities.The Consortium, which originated in 1992, is a dynamic initiative that continues to evolve and grow in terms of district partnerships and programming.

The Consortium has implemented programs in the following career fields:

- agricultural and environmental systems
- business and administrative services
- construction technologies
- health technologies
- education and training
- engineering and science technologies
- finance
- information technologies
- law and public safety
- marketing technologies
- manufacturing technologies
- transportation technologies

Students from all Consortium high schools are eligible to apply for admission to these high school programs on a tuition-free basis. Successful completion of the high school portion of this program presents the possibility of advanced standing for entry into specific college programs.

The Consortium is the proud recipient of the prestigious Ohio's BEST Practices award, sponsored by the Ohio Business Roundtable, and the National Tech Prep Network Exemplary Worksite Learning Award as first place in the nation. For more information on these awards, or for program information, visit ***www.starkcountytechprep.org***.

FULL-TIME STUDENT

A full-time student is considered to be any student who is officially enrolled at Stark State College and taking a minimum of 12 semester hours of coursework.

PART-TIME STUDENT

A student enrolled in 11 semester hours of coursework or less is considered a part-time student.

STUDENT I.D. CARDS

Identification cards will be mailed to all students who apply to at the College. 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.

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***. The site is searchable by opening the link marked **Complete P & P (PDF)**, then right-clicking on the document and typing in the search phrase listed above. Students without internet access may use open labs to access ***www.starkstate.edu/policies***. Requests for printed copies of policies and procedures, or questions regarding any policy or procedure, should be directed to the Office of Admissions/Student Services.

Student Services

Services of a non-instructional nature are provided by the Office of Admissions/Student Services. Stark State College faculty and staff support the philosophy, objectives and goals of the College. In its 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.

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.

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- 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

COUNSELING SERVICES

Students are encouraged to make full use of counseling services. The counseling staff assists students with educational goals and with personal concerns that might affect academic progress in college. Contact the Office of Admissions/Student Services at 330-494-6170 for more information.

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 counseling
- 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 assistance to students with disabilities in order to maximize educational opportunities and individual potential. The disability support services coordinator assists students with disabilities by providing academic support services; admissions procedures; financial aid information; and academic, personal and career counseling. The campus includes many accessible features, such as adapted restrooms, electric doors, handicapped parking (by permit) and Braille tactile room signs. The College's disability support services coordinator coordinates various services with academic and non-academic offices and serves as a liaison between the College community and state/local agencies. Students must inform the disability support services coordinator of their need for accommodations prior to the start of their coursework. Students must provide documentation of their disability, test reports and school records to help the disability support services coordinator provide appropriate academic accommodations and support services. A pre-admission interview prior to applying to the College is suggested. Call the Office of Admissions/Student Services at 330-494-6170 for information or to schedule an interview.

NEW STUDENT ORIENTATION

The College provides an orientation program to help new students understand and adjust to college policies, services, faculty and programs. Registered students are notified of the date and time of orientation.

E-LEARNING ORIENTATION (WEB-BASED COURSES)

Students enrolling in Web-based courses for the first time are urged to attend one of the E-learning Orientation sessions published each semester in the College class schedule and on the College Web site. These sessions include information about course expectations, logging on, College services available to Web students, troubleshooting and preventing technical computer problems, and accessing the course. The sessions also provide students with information about how to access and complete a "hands-on" orientation course.

DIGITAL LIBRARY AND LEARNING RESOURCE CENTER

The Stark State Digital Library, adjacent to the College Atrium, is a collection of digital information, resources, links, services and people. An in-person 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 BOOKSTORE

Textbooks, supplies and retail items are available in the Bookstore. The Bookstore is open during all hours of registration. Regular bookstore 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 Bookstore may be accessed online at 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 is also available in the common areas of the College.

HELP DESK

The Help Desk provides technical support on systems used at the College. Access the Help Desk from ***my*starkstate**, via phone at Ext. HELP or in person.

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*** 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 (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 the College Web site or in the Academic Records/Registrar's Office.

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

1. 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.
2. 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.

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to ***www.starkstate.edu/policies***. Printed copies are available in the Office of Admissions/Student Services.

Teaching and Learning Division

The Teaching and Learning Division offers students a variety of services to assist them in learning academic and problem-solving skills, offering them greater opportunity for college success. This Division also provides individual student educational support and referral information.

THE TUTORING AND LEARNING CENTER

The Tutoring and Learning Center helps students meet their academic goals by providing various educational services in a comfortable setting. Tutoring is provided each semester; and an updated schedule is available on the College Web site under the Academic tab, as well as being posted outside the center labs. Both faculty and student tutors are available at scheduled times for a variety of subjects. Additional services include computer-based instruction and tutorials, video instruction, word processing, and Internet access. Instructional technicians provide support for students in the labs and direct-support services are available for selected courses for both students and faculty. No appointment is necessary to use these free services.

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, which is an advantage for students, since many licensure exams are now computer-based.

STUDENT SUCCESS SEMINARS/ACADEMIC SUPPORT

Seminars to help students learn college success skills, such as time management 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 or the College Website, under Academics, 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-SSS 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 may also have disabilities. The services provided are 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 Services

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 during their first semester.

CAREER CENTER

The Career Center can provide

- information on many employers for pre-interview research.
- information on various careers in the form of publications and videos.
- current information on the job search. Material includes resumes, cover letters, interviewing and other related topics.
- want ads from local newspapers
- Career Development Web page with career planning and employment links.

EMPLOYMENT SERVICES

Professional Work Experience

The Career Development Office 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 major. This program is designed to help students obtain experience in their field while they are attending college. The Professional Work Experience program is available to students in business, engineering technologies and information technologies.

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 e-mail a resume to employers. 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 the College Central Network.

Student Jobs

For current students, a job bulletin board is available which displays part-time and full-time student jobs. Work Study jobs on campus are processed via the Financial Aid Office.

Job Search Assistance

The Career Development Office provides assistance on all aspects of the job search, including help with resumes, cover letter and interviewing.

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 which 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 over two million members and more than 1,200 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 child care 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

- American Society of Civil Engineers (ASCE)
- American Society of Mechanical Engineers (ASME)
- Animation Club
- Association of Information Technology Professionals (AITP)
- Association for Medical Laboratory Technicians (AMLT)
- Business Leaders at Stark State College
- Chess Club
- Cultural Diversity Club
- Engineering Technology Club
- Environmental Club
- Institute of Electrical and Electronic Engineers (IEEE)
- Institute of Management Accountants (IMA)
- International Club
- Kappa Delta Pi International Honor Society in Education
- Phi Theta Kappa Honor Society
- Respiratory Care Club
- Ski and Snowboarding Club
- Society of Manufacturing Engineers (SME)
- Society of Women Engineers (SWE)
- Stark Raving Writers
- Stark State College Association of Medical Assistants
- Student Ambassador Program
- Student American Dental Hygienist Association (SADHA)
- Student Government Association/InterClub Council
- Student Health Information Management Association (SHIMA)
- Student Informer - Student Publication/Newspaper
- Student Nurse Association-Stark State College (SNA)
- Student Occupational Therapy Assistants Club (SOTA)
- Student Physical Therapy Assistant Club (SPTA)
- Students in Human and Social Service Services Club
- TOPS (Taking Off Pounds Sensibly)
- Veteran's Club

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to ***www.starkstate.edu/policies***. Printed copies are available in the Office of Admissions/Student Services.

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*** or in the Financial Aid Office.

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 or submit a paper application to the Academic Records Office, 6200 Frank Avenue N.W., North Canton, Ohio 44720, or in person on the third floor of the Student Services Center.
- **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***. The Stark State College school code is 011141.
- **Apply for Student Loan** If you are interested in a federal student loan, apply via ***www.starkstate.edu/loans***.
- **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. Full explanation of this process is available at ***www.starkstate.edu/finaid*** or by visiting the Financial Aid Office.

REQUIRED FORMS AND PRIORITY DATES

FAFSA
- May 1 of the award year
- March 1 of the award year if attending for summer session or promptly upon request

Verification worksheet
Promptly upon request

Other required documentation
- June 1 of the award year
- May 1 of the award year, if attending summer session or promptly upon request

Online loan request
- July 1 of the award year
- May 1 of the award year, if attending Summer session

Late applicants
The Financial Aid Office will process late applications as quickly as possible; however, late applicants should seek other means to meet payments deadlines and purchase books until financial aid funds can be released.

FEDERAL AND STATE AID PROGRAMS

The following programs are grants and do not require repayment:

Federal Pell Grant (PELL)
The Federal Pell Grant is the largest federal grant program and is made available to students who demonstrate financial need. Grants range from $400 to $5350 per year and are awarded to both full-time and part-time students, based upon financial need.

Federal Academic Competitiveness Grant (ACG)
Pell Grant-eligible students who completed a rigorous high school program of study after January 1, 2005 and are enrolled full-time are eligible. First year award is $750; second year award is $1300.

Federal Supplemental Education Opportunity Grant (FSEOG)
According to federal regulations, students must be Pell-eligible to receive FSEOG funds. Funds are awarded on a first-come, first-serve basis, so students should apply early to be considered for these monies. Award amounts vary up to $400 per year.

Federal Work Study Program (FWSP)
The 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 and student request.

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

Veteran's 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 on the Web.

Other Sources Of Aid
Stark State College works closely with many local agencies to assist students in securing funds for college including the Bureau of Vocational Rehabilitation (BVR), the Workforce Initiative Association (WIA) and the Trade Adjustment Act (TAA). Additional information is available through the individual agency, on the Web or in the Financial Aid Office.

LOANS

Federal Stafford Student Loan
A Federal Stafford Loan offers freshmen students up to $5,500 and sophomores up to $6,500 per year. Students enrolled in certificate programs 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 Stafford Loan, borrowing a new loan will not affect the rate or terms of your previous loan(s). You may qualify for a Subsidized Stafford Loan and/or an Unsubsidized Stafford Loan up to the amounts listed above. First-time borrowers will be required to complete online loan counseling. You must be enrolled in at least six credit hours per semester to be eligible for this loan.

Subsidized Stafford Loans
These loans are based on financial need; therefore, some students may not qualify. With a Subsidized Stafford Loan, *no interest accumulates and no repayment is required as long as the student is enrolled in college at least half-time*. Students have six months after dropping below half-time status or graduating before repayment begins and interest accrues. *For loans first dispersed on or after July 1, 2009, the interest rate will be a fixed 5.60%.*

Unsubsidized Stafford Loans
Students who do not qualify for Subsidized Stafford Loans may borrow up to the maximum amounts designated on the award notification through Unsubsidized Stafford Loans. *Interest will accrue and can be paid by the borrower while he/she is in school and during the grace and repayment period.* Independent students do have the option of borrowing an additional $4,000 in unsubsidized Stafford Loan Funds. To be considered for these additional funds, please contact the Financial Aid Office. *For loans first dispersed on or after July 1, 2009, the interest rate will be a fixed 6.80%.*

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to ***www.starkstate.edu/policies***. Printed copies are available in the Office of Admissions/Student Services.

STANDARDS OF ACADEMIC PROGRESS (SAP)

Stark State College requires that students who apply for or receive federal financial aid make 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 attempted credit hours (per term or cumulative)
- 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).

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

We'll help monitor your progress. At the end of each term you attend, your academic progress will be evaluated, based upon the standards listed above. ***If you fail to meet any of the above requirements, you will receive a notification letter from the college.***

After the first term in which the requirements are not met, you will be placed on financial aid probation for one subsequent term. During the probationary period, you will be required to meet with an academic advisor prior to registering. In order to assist you with SAP compliance, your advisor may suggest appropriate interventions, such as

- referral to the Tutoring Center
- referral to the Writing, Math, or Reading Lab
- required participation in the Freshman Experience
- development of a Life Skills Portfolio and Learning Plan
- career counseling

After the second term in which the requirements are not met, you will become ***ineligible*** for federal financial aid. In order to regain your federal financial aid eligibility, you must complete the credit hours necessary for compliance ***without the use of federal funds***.

If you become ineligible for federal financial aid, you may appeal. If you have unusual or mitigating circumstances, 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. The appeal must be submitted by end of the first week of classes in the term in which the student is applying for continued federal financial aid.

If federal financial aid is reinstated as a result of the appeals process, a student is placed on probation until the student regains full eligibility.

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.

For a listing of our most current tuition and fees, visit the Stark State College Web site at, ***www.starkstate.edu/registration/fee.htm***.

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, the creation of a permanent student record and the entering of 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
Students, who demonstrate appropriate knowledge, may elect to "test out" of certain courses with permission from the Office of Admissions/Student Services. 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***. 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.

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/DiscoverCard.

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. Refunding of fees is 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, 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.

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.

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*** 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 Examd
Credit Residency Requirements
Cross Registration
Dean's List
Early Alert
Grievance Procedures
Grade Appeals
Grading Sysem
Graduation Requirements
Honesty in Learning
Incomplete
Late Registration
President's List
Probation
Student Records
Transcripts
Transfer Credit
Withdrawal

The site is searchable at ***www.starkstate.edu/policies*** by opening the link marked **Complete P & P (PDF)**, then right-clicking on the document and typing in the search phrase listed above. Students are responsible for being familiar with and adhering to College policies and procedures. Students without internet access may use open labs to access ***www.starkstate.edu/policies***. Requests for printed copies of policies and procedures, or questions regarding any policy or procedure, should be directed to the Office of Student Services. Room S305

College Commitment to Scholastic Honesty, Student Integrity and Honesty in Learning

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

HONESTY IN LEARNING

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

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

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

For the most current academic and student conduct policies, as well as additional policies and procedures of interest to students, go to ***www.starkstate.edu/policies***. Printed copies are available in the Office of Admissions/Student Services.

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***.

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***.

u.select (FORMALLY 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/***.

TRANSFER MODULE

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

Transfer Module Courses

English and Communications	
Effective Speaking	COM121
Interpersonal Communications	COM122
College Composition	ENG124
Technical Report Writing	ENG221
Composition and Literature	ENG224
Business Communication	ENG230
College Composition II	ENG231
Mathematics	
College Algebra	MTH125
Precalculus	MTH126, MTH126A and MTH126B
Trigonometry	MTH128
Concepts of Calculus	MTH221
Statistics	MTH222
Analytic Geometry – Calculus I	MTH223
Arts and Humanities	
Ethics	PHL122
British Literature I	ENG 233
British Literature II	ENG 234
Understanding Architecture +	ARCH10001
Art Survey +	ARTH12001
Art History I: Ancient and Medieval Art +	ARTH22006
Intro to Shakespeare +	ENG21054
Major Modern Writers: British and U.S. +	ENG22073
Great Books I +	ENG22071
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
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
Abnormal Psychology	PSY221
Political Science	PSC121
Basic Economics	BUS122
Microeconomics	BUS221
Macroeconomics	BUS222
Sociology	SOC121
Society and Technology	SOC122
Dynamics of the Family	SOC123
Cultural Diversity	SOC225
Natural and Physical Science	
Introduction Anatomy and Physiology	BIO101
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 & Biological Chemistry I	CHM121
General, Organic & Biological Chemistry II	CHM122
Principles of Physics	PHY101
Physics I	PHY121
Physics II	PHY122

+ Indicates courses offered at Kent State – Stark campus

Transfer Module Curriculum

Areas	(A) Minimum General Education Requirements Applied to TM (24 sem or 36 qtr)	(B) Additional General Education Requirements Applied to TM (12-16 sem or 18-24 qtr)	(C) Interdisciplinary Hours Applied to TM within Areas I-V (Ohio Articulation and Transfer Policy: Appendix B)	General Education Requirements Beyond the TM for Graduation (Courses listed in this column are not guaranteed to transfer)
I English/Oral Communication (Oral Communication – column B) Minimum 3 sem/5 qtr	3 ENG124 Plus one of the following: 3 ENG221 3 ENG224 3 ENG230 3 ENG231	Select one course: 3 COM121 3 COM122		
II Mathematics, Statistics or Formal Logic Minimum 3 sem/3 qtr	Select two courses: 3 MTH125 3 MTH126 3 MTH 126A and MTH126B 1 MTH128 3 MTH221 3 MTH222 4 MTH223			
III *Arts/Humanities Minimum 6 sem/9 qtr	3 ENG 233 3 ENG 234 3 PHL122 Students can also select from the following Kent State-Stark courses: ARCH10001 ARTH12001 OR 22006 ENG21054, 22073 OR 22071 HIST11050, 11051, 12070 OR 12071 MUS22111 PAS23001 OR 23002			
IV *Social Science Minimum 6 sem/9 qtr	Select two courses: 3 PSY121, and 3 SOC121 OR 3 SOC122 3 SOC123 3 SOC225	Select one PSY/PSC course and/or one BUS course: 3 PSY122 3 PSY123 3 PSY124 3 PSY221 3 PSC121 3 BUS122 3 BUS221 3 BUS222		
V Natural Science Minimum 6 sem/9 qtr One Lab course required	Select two courses: 3 BIO101 4 BIO121 4 BIO122 4 BIO126 4 BIO127 4 BIO221 4 CHM101 4 CHM121 4 CHM122 4 PHY101 4 PHY121 4 PHY122			
Subtotal of Hours	**31-33**	**6**		Courses listed in this column are not guaranteed to transfer

*Courses in Areas III and IV must be from two different disciplines.

TRANSFER MODULE TOTAL HOURS 37 - 39 (Total of Columns A, B, and C)

The Transfer Module contains 36-40 semester hours or 54-60 quarter hours of course credit.

(Note: You can obtain a catalog/brochure that lists the TM "approved" courses from the institution.)

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 $1000
- Consumption in a motor vehicle: Maximum confinement of 30 days.

MARIJUANA
Effects of Occasional and Extended Use
Chronic lung cancer; brain damage; high blood pressure; diminished immunity; premature aging; impairment of memory; diminished motor skills; birth defects; fetal alcohol syndrome; mood swings; loss of ambition; increased apathy; decline in school and work performance.
Criminal Sanctions/Penalties
- Unlawful possession of use: Maximum penalties, depending on amount, may result in fine of $5,000 and/or maximum confinement of 10 years.
- Sell, offer to sell, or distribute for sale: Maximum fine of $7,500 and/or maximum confinement of 25 years.

NARCOTICS: COCAINE, CRACK COCAINE
Effects of Occasional and Extended Use
Seizures; stroke; cardiac or respiratory arrest; convulsions; delirium and paranoia; insomnia; anxiety; irritability; nasal problems; powerful addiction; disorientation.
Criminal Sanctions/Penalties
- Possession or use: Ranges from rehabilitation programs to substantial years of confinement and fines.
- Sell, offer to sell, and distribute for sale; Penalty determined by the amount of substance, with fines in large amounts (exceeding $1,000,000) and life imprisonment.

NARCOTICS: HEROIN, OPIUM, MORPHINE
Effects of Occasional and Extended Use
Cardiac arrest; vein inflammation; insomnia; serum hepatitis; convulsions; skin abscesses; death; physical dependence; difficulty breathing; nausea; constricted pupils; panic.
Criminal Sanctions/Penalties
- Possession or use: Ranges from rehabilitation programs to substantial years of confinement and fines.
- Sell, offer to sell, and distribute for sale; Penalty determined by the amount of substance, with fines in large amounts (exceeding $1,000,000) and life imprisonment.

NARCOTICS: OTHER CONTROLLED SUBSTANCES (LSD, PCP)
Effects of Occasional and Extended Use
Hallucinations; distortion of senses; memory loss; disruption of motor skills; permanent cognitive damage; bizarre behavior; severe disorientation.
Criminal Sanctions/Penalties
- Possession or use: Ranges from rehabilitation programs to substantial years of confinement and fines.
- Sell, offer to sell, and distribute for sale; Penalty determined by the amount of substance, with fines in large amounts (exceeding $1,000,000) and life imprisonment.

NARCOTICS: DEPRESSANTS (BARBITURATES AND TRANQUILIZERS)
Effects of Occasional and Extended Use
Death; coma; altered perception; physical dependence; dangerous withdrawal symptoms; staggered walk; difficulty breathing; slurred speech; psychological dependence.
Criminal Sanctions/Penalties
- Possession or use: Ranges from rehabilitation programs to substantial years of confinement and fines.
- Sell, offer to sell, and distribute for sale; Penalty determined by the amount of substance, with fines in large amounts (exceeding $1,000,000) and life imprisonment

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

COLLEGE SANCTIONS
Students – The unlawful use, possession, sale, manufacture, or distribution of drugs and alcohol subjects any student discipline pursuant to established College procedures and to sanctions up to and including suspension or dismissal from the College. Any student violating this policy or otherwise engaging in illegal conduct will also be referred for criminal prosecution.
College Employees – Under the influence, possession, or use, furnishing to a minor: Sanctions up to and including termination.
Any employee engaging in the illegal use, possession, sale, manufacture, or distribution of drugs and alcohol will be subject to disciplinary procedures outlined in the Policy and Procedure Manual with sanctions up to and including termination from the College.

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

Some Twelve Step Programs available:
- Adult Children of Alcoholics
- Alcoholics Anonymous
- Co-dependency Anonymous
- Cocaine Anonymous
- Narcotics Anonymous
- Overeater Anonymous

These local information and referral agencies can give you information about assessment, treatment and support resources:
- Alcohol and Drug Assistance - 330-453-8811
- Crisis Intervention Center - 330-452-6000 or 1-800-956-6630
- Stark State College STConnection
- Stark State College Office of Admissions/Student Services
- Stark State College Security Department
- Interfaith Campus Ministry
- 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.

By its very nature, the Arts and Sciences Division is multidisciplinary. Its departments offer courses that provide the foundation on which success in all the College's degree and certificate programs ultimately relies. Nearly all the College's students take coursework through the Arts and Sciences Division since most degree programs require 21 credits in these areas of study. The Arts and Sciences Division also offers the courses that comprise the College's Transfer Module and a number of other courses that are components of Ohio's more specialized Transfer Assurance Guides (TAGs).

The mission statement of Stark State College indicates that we are concerned with, among other things, preparing students for education beyond the associate degree; helping students acquire positive attitudes toward society, self and work; and fostering participative, intelligent and informed citizenship.

The Arts and Sciences Division faculty support this mission by providing students with a foundation of knowledge in their respective disciplines and facilitating the development of students' analytical abilities. Transferable knowledge and skills, which are essential for successful work performance, future growth and education, have a high priority. Our goal is to provide a platform for lifelong growth and development leading to higher levels of knowledge, skill and competency. Students are presented opportunities to develop skills for problem-solving and conflict resolution using language logically, critically and creatively.

Through the Arts and Sciences Division curriculum, Stark State College addresses the whole person in terms of values, self-awareness and understanding. Self-awareness includes helping students to understand, use and present technical information. It focuses upon techniques of self-analysis and the skills needed to find work that our students can do well and enjoy. A high premium is placed upon developing effective interpersonal skills and the attitudes and abilities required to work purposefully and effectively with others.

Arts and Sciences Division

Associate of Arts (A.A.) Degree

The associate of arts degree offers an excellent foundation for degrees in communication, education, business, social and behavioral sciences, and the arts. Students gain knowledge and skills that are applicable to almost any work environment, such as problem solving, critical thinking and communication. Most students continue their studies in bachelor's degree programs in a specific area and pursue careers in a related field. Those who choose to enter the workforce with an associate degree are prepared for entry-level positions.

The A.A. may be earned directly through Stark State College or through a partnership with Kent State University-Stark Campus that awards the degree jointly. Information about the various degree paths available through the A.A. program may be found at www.starkstate.edu/aa.

A minimum of 60 credits are required for the associate of arts degree. All students must earn the minimum credit subtotal in English composition, social and behavioral sciences, arts and humanities, and sciences and mathematics.

FRESHMAN EXPERIENCE		
ASD101	Student Success Arts & Sciences Seminar (required)	1
COMPUTER APPLICATIONS		
BCA120	Business Computer Applications (required)	4
ENGLISH COMPOSITION: 6 credit hours minimum		
ENG124	College Composition (required)	3
ENG221	Technical Report Writing	3
ENG230	Business Communication	3
ENG231	College Composition II	3
SOCIAL AND BEHAVIORAL SCIENCES: 9 credit hours minimum		
PSC121	Political Science	3
PSY121	General Psychology	3
SOC121	Sociology	3
SOC225	Cultural Diversity (required)	3
BUS122	Basic Economics	3
ARTS AND HUMANITIES: 9 credit hours minimum		
COM121	Effective Speaking	3
PHL122	Ethics	3
ENG233	British Literature I	3
ENG234	British Literature II	3
HIS121	U.S. History I	3
HIS122	U. S. History II	3
SCIENCES AND MATHEMATICS: 10-13 credits minimum (1 lab course required)		
Natural Sciences		
BIO101	Intro. to Anatomy & Physiology	3
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
Mathematics		
MTH125	College Algebra	4
MTH126	Precalculus	4
MTH222	Statistics	3
Physics		
PHY101	Principles of Physics (lab course)	4
ADDITIONAL ELECTIVES TO COMPLETE DEGREE		18-21

In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately.

In order to keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions, or any other statements, contained in this catalog at the discretion of the College or its Board of Trustees. Refer to www.starkstate.edu for the most current information.

Associate of Science (A.S.) Degree

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 four-year institutions.

The A.S. may be earned directly through Stark State College or through a partnership with Kent State University-Stark Campus that awards the degree jointly. Information about the various degree paths available through the A.S. program may be found at www.starkstate.edu/as.

A minimum of 60 credits are required for the associate of science degree. All students must earn the minimum credit subtotal in English composition, social and behavioral sciences, arts and humanities, and sciences and mathematics.

FRESHMAN EXPERIENCE		
ASD101	Student Success Arts & Sciences Seminar (required)	1
COMPUTER APPLICATIONS		
BCA120	Business Computer Applications (required)	4
ENGLISH COMPOSITION: 6 credit hours minimum		
ENG124	College Composition (required)	3
ENG221	Technical Report Writing	3
ENG230	Business Communication	3
ENG231	College Composition II	3
SOCIAL AND BEHAVIORAL SCIENCES: 9 credit hours minimum		
PSC121	Political Science	3
PSY121	General Psychology	3
SOC121	Sociology	3
SOC225	Cultural Diversity (required)	3
BUS122	Basic Economics	3
ARTS AND HUMANITIES: 9 credit hours minimum		
COM121	Effective Speaking	3
PHL122	Ethics	3
ENG233	British Literature I	3
ENG234	British Literature II	3
HIS121	U.S. History I	3
HIS122	U. S. History II	3
SCIENCES AND MATHEMATICS: 10-13 credits minimum (1 lab course required)		
Natural Sciences		
BIO101	Intro. to Anatomy & Physiology	3
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
Mathematics		
MTH125	College Algebra	4
MTH126	Precalculus	4
MTH222	Statistics	3
Physics		
PHY101	Principles of Physics (lab course)	4
ADDITIONAL ELECTIVES TO COMPLETE DEGREE		18-21

In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately.

In order to keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions, or any other statements, contained in this catalog at the discretion of the College or its Board of Trustees. Refer to www.starkstate.edu for the most current information.

Associate of Technical Studies (A.T.S.) Degree

The associate of technical studies (A.T.S.) degree is awarded for the successful completion of a program in technical education that is individually planned by the student and advisors to meet a specific need that is not available in any of the current programs.

This interdisciplinary program is intended for the individual who has been gainfully employed in an occupation for several years and is interested in obtaining credit for previous training and experience as well as additional coursework to enhance career opportunities. A minimum of 18 semester hours must be earned in the major area of concentration. A committee composed of the major and minor department chair and the major division dean will work out the program of study with the student. Final approval will be granted by the provost of the College.

All associate degree programs must contain a minimum of 30 semester credit hours of technical courses, 15 semester credit hours each of basic related and general studies courses. The program must identify the course in each of these areas that will meet the educational needs of the individual.

The educational program must be approved prior to the student's having earned 30 semester hours of credit at the College.

Biotechnology

Biotechnology represents the cutting edge of science, often leading to groundbreaking discoveries in a wide variety of fields. Biotechnology is one of the fastest growing industries in the United States and in the northeastern Ohio area.

Stark State's biotechnology program provides students with the training necessary to work and thrive in biotechnology/bioscience or other technology-rich industrial or academic-based research laboratories. The courses are designed to be hands-on and provide training which implements the most up-to-date techniques and instrumentation currently being used in these laboratories.

Graduates of this program will be prepared to work in biotechnology/ bioscience laboratories in such positions as research and development, and quality control. In addition, professionals with biotechnology backgrounds, who can communicate well with researchers and customers, are needed in sales and marketing.

This program is an option for individuals thinking of articulating into a bachelor's degree in biotechnology, biology or chemistry at a four-year college or university. Many of these courses are also applicable to the associate of science degree offered jointly by Stark State and Kent State University.

Many analysts have predicted that biotechnology will be one of the most important applied sciences of the 21st century.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BIO141	General Biology I	4
CHM141	General Chemistry I	5
ENG124	College Composition †	3
MTH121	College Algebra and Trigonometry I	4
BST120	Intro to Biotechnology	1
BST121	Basic Biotechnology Methods	1
		18
Semester II		
BIO142	General Biology II	4
CHM142	General Chemistry II	5
MTH122	College Algebra and Trigonometry II	3
BST122	Advanced Biotechnology Methods	3
BST130	Biotechnology Seminar I	1
		16
Summer		
BIO221	Principles of Microbiology	4
BST221	Cell and Tissue Culture	2
		6
Semester III		
MTH222	Statistics	3
BST220	Molecular Biology Techniques	4
BST222	Cellular and Subcellular Separations	4
BST225	Biotechnology Instrumentation	3
		14
Semester IV		
BST240	Bioinformatics	3
BST250	Bioprocesses and Manufacturing	4
BST230	Biotechnology Seminar II	1
BST271-277	Biotech Independent Study	3-7
		11-15

65-69 TOTAL CREDIT HOURS

† Based on SSC placement score

In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately.

In order to keep pace with progress, the College reserves the right to change fees, academic programs, course descriptions, or any other statements, contained in this catalog at the discretion of the College or its Board of Trustees. Refer to www.starkstate.edu for the most current information.

Computational Science

Computational science is an exciting, modern field of science that involves the interdisciplinary study of math, science and computers. This academic program uses computer modeling to solve problems in all areas of biology, including microbiology, environmental science, anatomy and physiology, botany and pharmaceutical and academic research problems.

The computational science program, which leads to an associate of science degree, appeals to students who are interested in setting themselves apart from students receiving degrees in the traditional field of biology. This program is designed for students who plan to transfer to a four-year college or university with a major in biology and a minor in computational science. After completing this program, the student will be better prepared to perform at the junior level in a four-year program in terms of research, independent study and scientific focus.

Potential job responsibilities may include testing and designing new materials, visualizing a design, designing new products and parts, managing large datasets, optimizing data networks, forecasting disease trends, simulating quality control, optimizing design trade-offs, simulating surgical procedures, understanding drug interactions, understanding genomic differences and modeling physical anatomy.

Before enrolling in the program, students are strongly advised to consult an SSC academic advisor. Depending on placement scores and/or equivalent college coursework, students may be required to complete developmental courses before enrolling in the college level courses of this program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BIO141	General Biology I	4
CST120	Computational Science Methods	3
	Social and Behavioral Science Req*	3
ENG124	College Composition^	3
MTH126	Pre-Calculus	3
ASD101	Student Success Seminar in A&S	1
		17
Semester II		
BIO142	General Biology II	4
CST121	Modeling and Simulation	3
	Social and Behavioral Science Req*	3
ENG221	Technical Report Writing	3
MTH222	Statistics	3
COM121	Effective Speaking	3
		19
Semester III		
CST221	Computational Biology	4
MTH223	Analytical Geo & Calc I OR Calc II/III	4
PHL122	Ethics	3
ECA127	Programming Logic and Problem Solving	3
BIO121	Anatomy & Physiology I	4
		18
Semester IV		
CST274	Independent Study – Comp Sci	4
ECA150	Informatics	3
	Social and Behavioral Science Req*	3
	Arts and Humanities Req**	3
BIO122	Anatomy & Physiology II	4
		17

71 TOTAL CREDIT HOURS

^ Based upon SSC placement test

* Select from PSY121, PSC121, SOC121, SOC122, SOC225, BUS122

** Select from HIS121, HIS122, ENG233, ENG234, ACC236

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Technical Communications

The technical communications program at Stark State College prepares students for a career in the diverse and growing field of technical communications. Curriculum is designed to cover a wide breadth of requirements, including the ability to write clearly, edit, and design technical documents, as well as to expose students to courses in a variety of disciplines. These requirements include a thorough grounding in technical writing, as well as a focus on the communicative skills necessary to succeed in a career as a communications professional.

Graduates who earn an associate of applied science in technical communications may be employed in computing, biotech, manufacturing, aviation, and medicine, among others, with the option of further pursuit of a bachelor's degree in communications while maintaining oneself in the workforce. In addition, all graduates serve an internship designed to introduce them to technical writing in the workplace.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition	3
ENG231	College Composition II	3
	Math, Science, or Social Science Elective *	4
ECA122	Computer Applications for Technical Professionals	3
COM125	Introduction to Communication Theory	3
		16
Semester II		
	Math, Science, or Social Science Elective *	3
ENG221	Technical Report Writing	3
COM121	Effective Speaking	3
ENG125	Technical Editing and Layout	3
ENG227	Writing for Media	3
		15
Summer Session		
	Math, Science, or Social Science Electives *	3
		3
Semester III		
	Math, Science, or Social Science Electives **	7
	Technical Elective	3
ENG228	Writing for the Web	3
ENG126	Technical Grammar and Style	3
		16
Semester IV		
COM223	Interviewing I	3
	Math, Science, or Social Science Electives **	6
ENG229	Grant Writing	3
COM224	Technical Communications Internship	3
		15

65 TOTAL CREDIT HOURS

* Select one
** Select two

CERTIFICATE OF COMPETENCY

ENG124	College Composition	3
ECA122	Computer Applications for Technical Professionals	3
ENG221	Technical Report Writing	3
ENG227	Writing for Media	3
ENG125	Technical Editing and Layout	3
COM223	Interviewing I	3
		18

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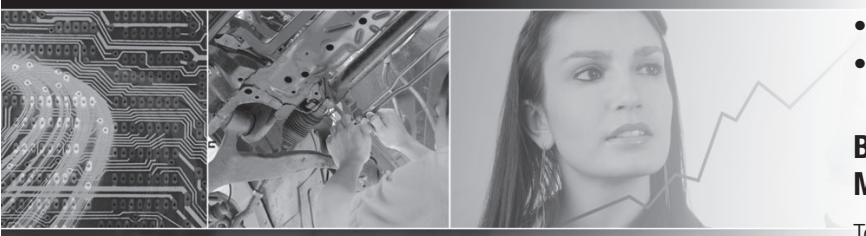

In today's world, businesses demand highly-skilled employees who are oriented to the preparation, interpretation and use of verbal, written and number-based data.

Businesses also require employees to be skilled in the latest technology. Stark State's Business and Entrepreneurial Studies Division offers associate degrees, options and one-year certificate programs to meet the demands of today's rapidly changing workplace. Studies are available in the following career fields:

- accounting and finance
- administrative office professional
- automotive and transportation
- business management and marketing
- entrepreneurial studies
- financial services
- information reporting
- legal assisting

Business and Entrepreneurial Studies Division Mission Statement

To provide a current, relevant and quality-driven technical education to those seeking to pursue or expand careers in business-related fields. Through experienced, degreed faculty, the Division delivers demand-driven curriculum with a professional, customer-service focused organization.

New and innovative entrepreneurs will play a vital role in maintaining our competitive edge. The Business and Entrepreneurial Studies Division is committed to providing the tools for economic development of local communities in order to compete in today's global economy.

Business and Entrepreneurial Studies Division

Accounting Technology

Accounting Services for Health Administration Option

Health care is a rapidly growing and changing field today, not only from the perspective of the patients, medical professionals, insurance and pharmaceutical companies, but also from the accounting and finance professionals who gather and report this information.This option is for the future accountant who would like to work primarily in the area of hospital finance and accounting. The program is concentrated on the essential accounting courses that every accountant needs for their profession, but also adds medical terminology, the basics of health care delivery systems, the complex world of reimbursements and insurance, and the legal aspects of the medical profession.

The goal is that graduates with this option will have the training to be employable in a hospital or health care facility accounting and/or finance department. In addition, the accounting and finance department at Stark State College has numerous articulation agreements with two and four-year institutions. This will enable the graduate to transfer credits to pursue a baccalaureate degree in accounting, finance, or management. With additional coursework at Stark State, or as part of their baccalaureate program, the graduate would also be eligible to pursue professional certifications, such as the CPA or CMA.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BUS123	Business Mathematics	4
BUS121	Business Administration	4
ACC132	Financial Accounting+	4
BIO125	Medical Terminology++	3
		18
Semester II		
ENG230	Business Communication	3
ACC221	Intermediate Accounting I	4
ACC133	Managerial Accounting	4
ACC127	Quantitative Business Statistics	4
HIT230	Health Care Delivery In the U.S.++	2
AOT105	Computer Applications – Excel	1
		18
Semester III		
COM121	Effective Speaking	3
BUS221	Microeconomics	3
ACC223	Cost Accounting	4
ACC232	Governmental & Not-For-Profit Accounting	4
MAT231	Reimbursement for Health Care Services++	3
AOT106	Computer Applications – Access	1
		18
Semester IV		
ACC237	Fraud Examination	4
FIN220	Business Finance	4
ACC228	Business Taxation	4
ACC229	Computerized Accounting Applications	3
HIT123	Healthcare Legal and Ethical Issues++	2
		17

71 TOTAL CREDIT HOURS

^ 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.

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Accounting Technology

Certified Public Accountant (CPA) Option

Accounting is a challenging and dynamic profession. A certified public accountant (CPA) is a leader in that profession with the ability to provide a wide variety of client services including auditing, tax preparation and planning, financial statement preparation and consulting. In addition, CPAs work for companies, governmental entities and not-for-profit entities preparing and analyzing financial information for use by internal and external decision makers.

Under the *Ohio Revised Code*, in order to sit for the Uniform CPA Examination, a candidate must have obtained at least an associate degree with a concentration in accounting that includes related courses in other areas of business administration. The accounting technology – certified public accountant option curriculum meets the associate degree requirements as set forth in the code. Upon completing the curriculum, a candidate must take and earn a minimum score on the *Graduate Record Exam* prior to being allowed to sit for the *CPA Exam*. After four years of approved work experience, a successful candidate may be certified.

The goal is that students successfully completing the accounting technology – certified public accountant option will be exposed to all the tools and skills necessary to be successful in an accounting career. They will have covered all the technical knowledge required and practiced its application. In addition, they will have been exposed to all of the technical subject material covered on the Uniform CPA exam. Students will demonstrate their acquired knowledge and abilities throughout the program within individual classes and in the capstone course.

The current business environment requires all prospective employees to have good communication skills, both written and oral, and to be able to interact with co-workers and clients in a professional manner. Employers also expect workers to have strong computational skills, to be computer literate and to be able to think critically. All students completing a program at Stark State College will be introduced, provided practice in, and be expected to master these basic competencies.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BUS123	Business Mathematics	4
BUS121	Business Administration	4
ACC132	Financial Accounting+	4
ACC127	Quantitative Business Statistics	4
		19
Semester II		
ENG230	Business Communication	3
BCA120	Business Computer Applications++	4
ACC221	Intermediate Accounting I	4
ACC133	Managerial Accounting	4
BUS221	Microeconomics	3
		18
Semester III		
COM121	Effective Speaking	3
ACC124	Individual Taxation	4
ACC222	Intermediate Accounting II	4
ACC223	Cost Accounting	4
	Technical Elective**	3
		18
Semester IV		
	Social Science Elective*	3
ACC225	Auditing	4
FIN220	Business Finance	4
	Technical Elective**	3
ACC130	Business Law & Ethics	3
		18

73 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Select from: PSY121, SOC121, or SOC225.

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

\+ 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 BCA120.

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Accounting Technology

Computer Information Option

The accounting technology – computer information option curriculum should provide the student with a foundation in accounting theory, and related courses in other areas of business, along with a highly developed computer competency. The student will learn a number of the most widely used software applications such as Microsoft Word, PowerPoint, Excel, Access and QuickBooks and how to use them to implement accounting functions.

These courses should provide the student with the necessary computer skills to effectively communicate and present data and materials to co-workers and clients. The students' exposure to computer application software and database development using Access, in conjunction with the traditional accounting courses, should provide the accounting student with a rounded solid computer-based accounting degree.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BUS123	Business Mathematics	4
BUS121	Business Administration	4
ACC132	Financial Accounting+	4
ACC127	Quantitative Business Statistics	4
		19
Semester II		
ENG230	Business Communication	3
ECA122	Computer Applications for Technical Professionals ++	3
ACC221	Intermediate Accounting I	4
ACC133	Managerial Accounting	4
BUS221	Microeconomics	3
		17
Semester III		
COM121	Effective Speaking	3
ACC228	Business Taxation	4
ACC229	Computerized Accounting Applications	3
ECA148	MS Excel: Analyzing Data to Make Better Decisions	3
	Technical Elective I**	3
		16
Semester IV		
	Social Science Elective*	3
ACC225/ ACC237	Auditing+++ OR Fraud Examination+++	4
ECA152	MS Access: Developing Robust Applications	6
	Technical Elective II***	3
ACC130	Business Law & Ethics	3
		16

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Select from: PSY121, SOC121, or SOC225.

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

*** Select from: ECA139, ECA253, 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 ECA122.

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

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Accounting Technology

Corporate Option

The accounting technology – corporate option curriculum gives students the solid foundation in accounting theory that is necessary for entry-to upper-level accounting positions and career advancement. Job opportunities include corporate accounting in the areas of financial information preparation, reporting, and analysis or cost accounting; governmental accounting; not-for-profit accounting; and accounting for partnerships or sole proprietorships.

The goal is that students successfully completing the accounting technology – corporate option will be exposed to all the tools and skills necessary to be successful in an accounting career. They will have covered all the technical knowledge required and practiced its application. In addition, they will have been exposed to all of the technical subject material covered on the Uniform CPA Exam. Students will demonstrate their acquired knowledge and abilities throughout the program within individual classes and in the capstone course.

The current business environment requires all prospective employees to have good communication skills, both written and oral, and to be able to interact with co-workers and clients in a professional manner. Employers also expect workers to have strong computational skills, to be computer literate and to be able to think critically. All students completing a program at Stark State College will be introduced, provided practice in, and be expected to master these basic competencies.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BUS123	Business Mathematics	4
BUS121	Business Administration	4
ACC132	Financial Accounting+	4
ACC127	Quantitative Business Statistics	4
		19
Semester II		
ENG230	Business Communication	3
BCA120	Business Computer Applications++	4
ACC221	Intermediate Accounting I	4
ACC133	Managerial Accounting	4
BUS221	Microeconomics	3
		18
Semester III		
COM121	Effective Speaking	3
ACC228	Business Taxation	4
ACC222	Intermediate Accounting II	4
ACC223	Cost Accounting	4
	Technical Elective**	3
		18
Semester IV		
	Social Science Elective*	3
ACC225/ ACC237	Auditing+++ OR Fraud Examination+++	4
FIN220	Business Finance	4
	Technical Elective**	3
ACC130	Business Law & Ethics	3
		17

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Select from: PSY121, SOC121, or SOC225.

** Select from: ACC226, ACC227, ACC229, ACC234, ACC235, ACC238, 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 BCA120.

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

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Accounting Technology

Forensic Accounting Option

The accounting technology - forensic accounting option curriculum provides the students with a foundation in accounting theory, and related courses in other areas of business, including a detailed knowledge of the types of fraud, fraud prevention and fraud detection. Emphasis is placed on the design of effective internal control systems, monitoring of compliance with those systems and the gathering and documentation of forensic evidence when fraud has occurred or is suspected. Students will learn many of the requirements and monitoring and reporting provisions of the Sarbanes Oxley Act.

The goal is that students successfully completing the forensic accounting option will be exposed to all the tools and skills necessary to be successful in an accounting career. In addition, they will have knowledge specific to the area of fraud prevention and detection, the gathering and reporting of forensic information in a fraud case and Sarbanes Oxley compliance.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BUS123	Business Mathematics	4
BUS121	Business Administration	4
ACC132	Financial Accounting+	4
ECA136	Principles of Information Security	3
		18
Semester II		
ACC235	Forensic Accounting	3
BCA120	Business Computer Applications++	4
ACC221	Intermediate Accounting I	4
ACC133	Managerial Accounting	4
ACC127	Quantitative Business Statistics	4
		19
Semester III		
ENG230	Business Communication	3
ACC228	Business Taxation	4
BUS221	Microeconomics	3
ACC223	Cost Accounting	4
ACC236	Cyber Law & Ethics	3
		17
Semester IV		
COM121	Effective Speaking	3
ACC237	Fraud Examination	4
ACC238	Financial Statement Analysis	4
ECA275	Ethical Hacking	3
ECA137	Computer Crime and Investigation	3
		17

71 TOTAL CREDIT HOURS

^ 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 BCA120.

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Accounting Technology

Tax Option

Every time the Congress tries to simplify the Internal Revenue Code, it becomes more complicated and more tax forms are required.

These "simplifications" have created a need by businesses and certified public accounting firms for employees who have the knowledge of accounting and business transactions and are able to convert that into tax return preparation and tax savings by understanding the tax laws.

It is acceptable to arrange your business affairs to pay the least amount of taxes as legally possible. This is accomplished with an understanding of accounting transactions and taxation law.

The goal is that graduates will be able to apply their accounting and tax knowledge to a company's tax department or become employed by a certified public accountant in their tax department. The entrepreneur should be able to start an accounting and tax practice to work with many of the small businesses that need assistance in this area.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BUS123	Business Mathematics	4
BUS121	Business Administration	4
ACC132	Financial Accounting+	4
ACC127	Quantitative Business Statistics	4
		19
Semester II		
ENG230	Business Communication	3
BCA120	Business Computer Applications++	4
ACC221	Intermediate Accounting I	4
ACC133	Managerial Accounting	4
ACC228	Business Taxation	4
		19
Semester III		
COM121	Effective Speaking	3
BUS221	Microeconomics	3
ACC222	Intermediate Accounting II	4
ACC223	Cost Accounting	4
	Technical Elective**	3
		17
Semester IV		
	Social Science Elective*	3
ACC225/ ACC237	Auditing+++ OR Fraud Examination+++	4
FIN220	Business Finance	4
	Technical Elective**	4
ACC130	Business Law & Ethics	3
		18

73 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Select from: PSY121, SOC121, or SOC225.

** Select from: ACC124, BTD223, or ACC239.

\+ 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 BCA120.

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

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Accounting Technology

One-Year Certificate
Banking Associate

In the banking industry today, employees hired for entry-level positions need to have some knowledge of basic accounting, financial services and mathematical applications relating to payments, annuities and future value. In order to advance in the industry, banking employees are encouraged to pursue certification in securities sales. The banking associate certificate program meets those needs.

The goal is that students successfully completing the one-year banking associate certificate will be exposed to all the tools and skills necessary to be successful in the undertaking of entry level positions in the field of banking.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ACC132	Financial Accounting+	4
BUS121	Business Administration	4
BCA120	Business Computer Applications++	4y
BUS123	Business Mathematics	4
ENG124	College Composition^	3
		19
Semester II		
	Technical Elective**	4
ACC229	Computerized Accounting Applications	3
ACC227	Payroll Accounting	3
ENG230	Business Communication	3
ACC130	Business Law & Ethics	3
		16

35 TOTAL CREDIT HOURS

^ 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 BCA120.

One-Year Certificate
Bookkeeping

Stark State College offers a one-year certificate program in bookkeeping for non-degree-seeking students. Students may apply credits earned in this certificate program to the accounting associate degree program. Students will be awarded a certificate in bookkeeping upon completion of the courses listed. Students must still pass the *Certified Bookkeepers Examination* to become certified. This examination is administered by the American Institute of Professional Bookkeepers.

Many students opt to pursue an associate degree in accounting after receiving a bookkeeping certificate.

The goal is that the students successfully completing the one-year bookkeeping certificate will be exposed to all the tools and skills necessary to be successful in the undertaking of entry level positions in the field of accounting. Areas of entry may include, but are not limited to bookkeeper, accounts receivable specialist and accounts payable specialist.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ACC132	Financial Accounting+	4
BUS121	Business Administration	4
BCA120	Business Computer Applications++	4
BUS123	Business Mathematics	4
ENG124	College Composition^	3
		19
Semester II		
	Technical Elective**	4
ACC229	Computerized Accounting Applications	3
ACC227	Payroll Accounting	3
ENG230	Business Communication	3
ACC130	Business Law & Ethics	3
		16

35 TOTAL CREDIT HOURS

^ 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 BCA120.

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Accounting Technology

One-Year Certificate
Enrolled Agent

Preparing tax returns is becoming more and more complicated. The potential penalties and interest for return preparation mistakes can be expensive. This has created a need for qualified tax preparers. This is evidenced by the growth of tax preparation companies, such as H&R Block and Jackson Hewitt.

Only three professions, attorney, certified public accountant and enrolled agent, can represent a taxpayer before the Internal Revenue Service.

For the person who wants to prepare tax returns without taking all the additional course study required to become an attorney or a certified public accountant, this certificate and passing the *Enrolled Agent Exam* administered by the IRS, satisfies that need. It is a tax-oriented curriculum with the emphasis on taxation.

The curriculum covers individual tax, corporate and business taxes, non-profit taxation and estate and income tax planning. The capstone course of Advanced Taxation Topics will be a summary of all prior courses. The next step is to sit for the *Enrolled Agent Examination*, administrated by the Internal Revenue Service.

The goal is that graduates will sit for and pass the Enrolled Agent Examination. Upon passing the examination, the graduate will be able to be employed by a tax return preparation company or a certified public accounting firm. The entrepreneur should be able to start a tax return preparation business.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ACC132	Financial Accounting+	4
ACC124	Individual Taxation	4
BCA120	Business Computer Applications++	4
ENG124	College Composition^	3
		15
Semester II		
ACC228	Business Taxation	4
ACC239	Estate & Income Tax Planning	4
FIN222	Retirement Planning & Employee Benefits	4
ENG230	Business Communication	3
ACC130	Business Law & Ethics	3
		18

33 TOTAL CREDIT HOURS

^ 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 BCA120.

One-Year Certificate
Fundamental Payroll

A small business operating as a sole-proprietor wants to add their first employee. What has to be done to add this employee? A federal identification number has to be applied for, the business must register as a withholding agent with the State of Ohio and possibly the city where the business is located. An application has to be submitted to the Ohio Job and Family Services and the Ohio Bureau of Workers Compensation. That is just to get started.

The accounting records have to be modified to accommodate all the new accounts that payroll, payroll tax withholding and payroll tax expense require. Quarterly, semi-annual and annual payroll tax forms are required. Who is going to do all this for the small business?

Large companies employ payroll people in their payroll department as well. Compliance with federal and state payroll and employee laws has created the need for the payroll professional.

The goal for the graduate of the fundamental payroll certificate program is to successfully pass the Fundamental Payroll Examination administrated by the American Payroll Association. The graduate would be able to assist the previously described small business and all others like them.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ACC132	Financial Accounting+	4
ACC227	Payroll Accounting	3
BCA120	Business Computer Applications++	4
BUS123	Business Mathematics	4
ENG124	College Composition^	3
		18
Semester II		
ACC234	Advanced Payroll	3
ACC229	Computerized Accounting Applications	3
ACC130	Business Law & Ethics	3
ENG230	Business Communication	3
ACC124	Individual Taxation	4
		16

34 TOTAL CREDIT HOURS

^ 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 BCA120.

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Administrative Office Professional

Due to the automation of administrative functions, there are tremendous opportunities and career choices for administrative office professionals with skills in information management software and office technology.

Administrative office professionals are required to have strong technical and interpersonal skills and function as an integral part of work groups and management teams in work environments. Skills acquired in the administrative office technology degree program create paths to other careers in computers, desktop publishing, administration, human resources and management.

The administrative office technologies department utilizes alternative delivery methods. Many courses are Web-enhanced or Web-delivered. Day, evening, Saturday and once-a-week sessions are offered.

The goal is that graduates will be able to organize work areas, use resources, make decisions and exhibit proficiency in the use of office procedures and information systems used in automated office environments; apply practical knowledge and utilize technical skills such as keyboarding, transcription, speech recognition, proofreading, document production, integrated computer applications, records management, and the use of the Internet; demonstrate employability skills and professionalism through sound work habits, ethics and responsibility, and work in individual, team and group settings; communicate ideas and information verbally and in written form; have computational skills for solving business problems and for making analytical judgments; acquire, organize and evaluate information for making decisions and solving problems in business environments.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
AOT130	Communication & Transcription Skills	3
AOT121	Keyboarding/Formatting	3
BCA220	Integrated Solutions for Business Problem Solving	4
BUS121	Business Administration	4
		17
Semester II		
AOT127	***Word Processing – Microsoft Word***	3
ACC121	Principles of Accounting	4
ENG230	Business Communication	3
AOT129	Keyboarding Skill Building	1
AOT131	Graphic Design Concepts	3
AOT132	Records Management	3
BUS123	Business Math^	4
		21
Semester III		
AOT226	***Spreadsheets – Microsoft Excel***	3
ACC130	Business Law and Ethics	3
	Social Science Elective*	3
AOT104	***Computer Applications – Microsoft PowerPoint***	1
COM121	Effective Speaking	3
AOT128	Desktop Publishing – Microsoft Publisher	3
		16
Semester IV		
BUS221	Microeconomics	3
AOT227	Administrative Procedures & Systems	3
AOT232	AOT Practicum	3
AOT236	***Database Applications – Microsoft Access***	3
AOT238	Web Design for Office Professionals	3
AOT108	Microsoft Outlook	1
AOT107	Digital Technologies	1
		17

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

^^ Based upon SSC computer entrance score.

* Student may select from: PSY121 or SOC121.

Students who are enrolled at the College for at least one semester and who have passed the Certified Professional Secretary (CPS) examination are eligible to receive credit toward an associate of applied business degree in administrative information technology, subject to the review and approval of the appropriate department chair.

Bold italicized courses indicate courses that contain content for Microsoft Computer Application Specialist (MCAS) certification.

Microsoft CERTIFIED Application Specialist

FRANKLIN UNIVERSITY Your potential. Our promise.

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Administrative Office Professional

Management Option

Technology and organizational restructuring have led the administrative office professional to assume responsibilities once reserved for managerial and professional staff. While the core responsibilities for the administrative office professional have remained the same, this position is now handling more managerial/supervisory duties, such as higher level decision making, project coordination, payroll, conflict management, Internet research and information management. The administrative office technologies department utilizes alternative delivery methods. Many courses are Web-enhanced or Web-delivered. Day, evening, Saturday and once-a-week sessions are offered.

The goal is that graduates will be able to organize work areas, use resources, make decisions and exhibit proficiency in the use of administrative procedures and information systems used in automated office environments; apply practical knowledge and utilize technical skills such as keyboarding, voice recognition, proofreading, document production, integrated computer applications, records management, payroll, and Internet usage; demonstrate employability skills and professionalism through sound work habits, ethics and responsibility, and work in individual, team and group settings; communicate ideas and information verbally and in written form; have computational skills for solving business problems and for making analytical judgments; acquire, organize and evaluate information for making decisions and solving problems in business environments.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
AOT130	Communication & Transcription Skills	3
AOT121	Keyboarding/Formatting	3
BCA220	Integrated Solutions for Business Problem Solving^^	4
BUS121	Business Administration	4
		17
Semester II		
AOT127	***Word Processing – Microsoft Word***	3
ACC121	Principles of Accounting	4
ENG230	Business Communication	3
MGT121	Principles of Management	3
AOT104	***Computer Applications – Microsoft PowerPoint***	1
AOT132	Records Management	3
BUS123	Business Math^	4
		21
Semester III		
AOT226	***Spreadsheets – Microsoft Excel***	3
ACC130	Business Law and Ethics	3
	Social Science Elective*	3
MGT221	Supervision	3
ACC227	Payroll Accounting	3
AOT108	Microsoft Outlook	1
AOT107	Digital Technologies	1
		17
Semester IV		
COM121	Effective Speaking	3
BUS221	Microeconomics	3
AOT227	Administrative Procedures & Systems	3
AOT232	AOT Practicum	3
AOT106	***Computer Applications – Microsoft Access***	1
ACC229	Computerized Accounting Applications	3
		16

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

^^ Based upon computer entrance test score.

* Student may select from: PSY121 or SOC121.

Bold italicized courses indicate courses that contain content for Microsoft Computer Application Specialist (MCAS) certification.

Microsoft CERTIFIED Application Specialist

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Administrative Office Professional

Virtual Office Professional Option

If working from a fully-equipped home office, defining your own work schedule around your family obligations, not being tied to working in the typical 9-5 office, or avoiding the daily commute appeals to you, join one of the fastest-growing careers as a virtual office professional.

Trends in telecommuting, the growth of the Internet, and corporate downsizing have all contributed to the growth of the virtual assistant business. Virtual office professionals provide administrative support to small businesses, consultants, or special project coordination for larger companies. Typical career opportunities include administrative professional, executive and/or personal assistant, real estate virtual assistant, online assistant, meeting planner, travel planner, desktop publisher, graphic designer, clerical recruiter, newsletter editor, virtual meetings organizer, and virtual office assistant.

Low overhead and start-up costs, flexibility of schedule, and ability to work from home are some of the benefits virtual office professionals enjoy.

The goal is that graduates will be able to work independently, use resources, make decisions and exhibit proficiency in the use of administrative procedures and information systems used in an automated office environment; apply practical knowledge and utilize technical skills such as keyboarding, voice recognition, proofreading, document production, integrated computer applications, graphic designs/Web design, and the use of the Internet; demonstrate employability skills and professionalism through sound work habits, ethics and responsibility, and work globally; communicate ideas and information verbally and in written form; have computational skills for solving business problems and for making analytical judgments; acquire, organize and evaluate information for making decisions and solving problems in business environments.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
AOT130	Communication & Transcription Skills	3
AOT121	Keyboarding/Formatting	3
BUS101	Student Success Business Seminar*	1
BCA220	Integrated Solutions for Business Problem Solving^^	4
BUS121	Business Administration	4
		18
Semester II		
AOT127	***Word Processing – Microsoft Word***	3
ACC121	Principles of Accounting	4
ENG230	Business Communication	3
ENT120	Entrepreneurship	2
AOT131	Graphic Design Concepts	3
AOT104	***Computer Applications – Microsoft PowerPoint***	1
BUS123	Business Math^	4
		20
Semester III		
AOT226	***Spreadsheets – Microsoft Excel***	3
ACC130	Business Law and Ethics	3
	Social Science Elective**	3
ENT121	Entrepreneurial Marketing	3
COM122	Interpersonal Communications	3
	Technical Elective***	3
		18
Semester IV		
BUS221	Microeconomics	3
AOT227	Administrative Procedures & Systems	3
AOT234	AOT Special Topics	2
AOT236	***Database Applications – Microsoft Access***	3
ENT221	Entrepreneurial Finance	3
AOT108	Microsoft Outlook	1
AOT107	Digital Technologies	1
		16

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

^^ Based upon computer entrance test score.

* Required of all first-semester BES students beginning Spring 2010 semester.

** Student may select from: PSY121 or SOC121.

*** Student may select from: AOT128 or AOT238.

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Microsoft CERTIFIED Application Specialist

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Administrative Office Professional

One-Year Certificate
Administrative Office Professional

Stark State College offers a one-year certificate program in administrative office professional for non-degree-seeking students. Students selecting the certificate program may apply credits earned in this one-year program to the associate degree program if they decide to pursue it. They will be awarded a certificate in administrative office professional upon completion of the courses listed.

Some of these courses may require prerequisite knowledge or skill. Refer to the course descriptions in the back of this catalog and/or check with the department chair of administrative office technologies.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
AOT121	Keyboarding/Formatting	3
BCA220	Integrated Solutions for Business Problem Solving^^	4
AOT127	***Word Processing – Microsoft Word***	3
BUS123	Business Math^	4
		17
Semester II		
ENG230	Business Communication	3
AOT131	Graphic Design Concepts	3
AOT132	Records Management	3
AOT226	***Spreadsheets – Microsoft Excel***	3
	Social Science Elective*	3
AOT236	***Database Applications – Microsoft Access***	3
		18

35 TOTAL CREDIT HOURS

Students must complete an application upon completion of the courses in the certificate program. Applications may be obtained from the department chair of administrative office technologies or in the Academic Records/Registrar's Office.

^ Based upon SSC placement score.

^^ Based upon computer entrance test score.

* Student may select from: PSY121 or SOC121.

Bold italicized courses indicate courses that contain content for Microsoft Computer Application Specialist (MCAS) certification.

Microsoft CERTIFIED Application Specialist

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Automotive and Transportation Technology

The service and repair of today's automobiles is and will continue to be very challenging. Because of technological advances and the quest for higher levels of customer service and satisfaction, today's automotive technician will need greater knowledge and competency levels than ever before.

During the last 20 years, there has been a rapid expansion in the use of electronics and microprocessor controls on automobiles. Today's automobiles can have up to 42 on-board computers and microprocessors that control engine management, emissions, occupant restraints, and on-board navigation systems. Along with their technical skills, today's technicians must also have good computer, communication and customer contact skills.

Stark State College's automotive and transportation technology program consists of two associate degree and seven certificate of completion options. Associate degree options are: the comprehensive automotive and transportation technology program and the General Motors automotive service educational program (GM ASEP).

Non-degree-seeking students may earn a certificate of completion in automotive and transportation technology program by completing all of the technical courses included in the related associate degree program. Certificate of completion options are: the comprehensive automotive certificate of completion program, the comprehensive accelerated certificate of completion program, the Toyota T-TEN program, the Honda PACT program, the Caterpillar lift truck program, the ACDelco program, and the GM STC program.

Stark State's automotive and transportation technology program curriculum blends classroom theory and hands-on training, thus giving students the knowledge base and competencies needed to process technical information, solve automotive problems and use diagnostics effectively. The program's low student-to-instructor ratio provides the student with the opportunity to actively participate in classroom and lab activities. Graduates of Stark State's automotive and transportation technology programs will be well prepared for a career as service technicians, dealership service advisors, service or parts managers, independent service facility operators, factory service representatives, insurance claims adjusters or lab test technicians. If students wish to pursue a bachelor degree after graduating from the program, they may transfer their Stark State credits to many well known four-year college and universities.

Stark State's automotive and transportation programs have been locally and nationally rated by the Industry Planning Council of the American Automobile Manufacturers Association (AAMA).

All of Stark State's automotive and transportation programs follow the guidelines required by the National Institute of Automotive Service Excellence (ASE) and are fully accredited by the National Automotive Technicians Education Foundation (NATEF). Many of Stark State's students pursue and pass ASE certification exams during the course of their instruction.

Graduates of Stark State's associate degree programs will receive an associate degree in applied science in automotive and transportation technology program.

Automotive and Transportation Technology

Comprehensive Automotive Program
Two-Year Degree

The Stark State College comprehensive automotive program is a two-year associate degree program designed for students seeking flexibility in their careers.

The curriculum is designed to provide the students with information about the service and repair of all of today's automobiles. Emphasis is placed on the three major domestic manufacturers (General Motors, Ford and Daimler Chrysler) and some foreign vehicles (Toyota, Honda, Isuzu, and Mazda, etc.).

The comprehensive automotive program includes all of the tasks from the nationally recognized NATEF task list, for all eight ASE specialty areas.

Students graduating from the comprehensive automotive program will receive an associate degree in applied science in automotive technology.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
AUT 121	Automotive Technical Skills	2
AUT 122	Automotive Systems and Engine Technology	4
AUT 123	Engine Diagnosis and Major Service	4
ENG 124	College Composition^	3
BUS 123	Business Mathematics	4
		17
Semester II		
AUT 124	Vehicle Chassis Systems	4
AUT 125	Automotive Electrical and Accessory Systems	4
AUT 126	Automotive HVAC Systems	2
BUS 121	Business Administration	4
ACC 121	Principles of Accounting I	4
		18
Semester III		
AUT 221	Fuel and Emissions Management Systems	3
AUT 227	Computerized Vehicle Control	3
AUT 223	Advanced Automotive Electronics	3
AUT 222	Engine Systems Performance Diagnosis	3
BUS 221	Microconomics	3
BCA 120	Business Computer Applications	4
		19
Semester IV		
AUT 225	Automotive Drivetrain I	3
AUT 226	Automotive Drivetrain II	3
AUT 233	Automotive Diagnostics Applications	2
AUT 427	Alternative Fuels & Advanced Automotive Technologies	2
ENG 230	Business Communications	3
ACC 130	Business Law and Ethics	3
	Technical Elective**	2
		18

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

** Select from AUT 228, AUT 230, or ETD 202

COLLEGE TECH PREP

A college tech prep participant

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Automotive and Transportation Technology

GM ASEP

The General Motors automotive service educational program (GM ASEP) is an associate degree automotive program. It is designed exclusively for use by GM dealers as a source for trained, skilled technicians.

The curriculum is designed to be GM-specific. The program combines automotive technology courses, related courses, and a strong background in math, reading and electronics.

The GM ASEP curriculum includes all of the tasks from the nationally recognized NATEF task list, for all eight ASE specialty areas, plus the content of over 56 GM training courses.

Students graduating from GM ASEP will receive an associate degree in applied science in automotive technology. They will also receive training credit for over 56 GM training courses.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
AUT 121	Automotive Technical Skills	2
AUT 122	Automotive Systems and Engine Technology	4
AUT 124	Vehicle Chassis Systems	4
ENG 124	College Composition^	3
BUS 123	Business Mathematics	4
ETD 222	Engineering Technology Co-op	2
		19
Semester II		
AUT 123	Engine Diagnosis and Major Service	4
AUT 125	Automotive Electrical and Accessory Systems	4
BUS 121	Business Administration	4
ACC 121	Principles of Accounting I	4
ETD 222	Engineering Technology Co-op	2
		18
Summer Semester		
AUT 126	Automotive HVAC Systems	2
ETD 222	Engineering Technology Co-op	2
		4
Semester III		
AUT 221	Fuel and Emissions Management Systems	3
AUT 225	Automotive Drivetrain I	3
AUT 226	Automotive Drivetrain II	3
BCA 120	Business Computer Applications	4
ETD 222	Engineering Technology Co-op	2
		15
Semester IV		
ACC 130	Business Law and Ethics	3
ENG 123	Business Communications	3
AUT 222	Engine Systems Performance Diagnosis	3
AUT 223	Advanced Automotive Electronics	3
AUT 227	Computerized Vehicle Control	3
ETD 222	Engineering Technology Co-op	2
		17

73 TOTAL CREDIT HOURS

^ Based upon SSC placement score

COLLEGE TECH PREP

GM ASEP

A college tech prep participant

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Automotive and Transportation Technology

Comprehensive One-Year Accelerated Career Enhancement Certificate

The Stark State College comprehensive accelerated certificate of completion program (CACCP) is a one-year program that contains only the automotive courses listed in the two-year comprehensive automotive program.

The curriculum is designed to be an intensive one-year education in the service and repair of today's automobiles. As in the comprehensive automotive program, emphasis is placed on the three major domestic manufacturers (General Motors, Ford and Daimler Chrysler) and some foreign vehicles (Toyota, Honda, Isuzu, and Mazda, etc.).

The CACCP curriculum is a blend of classroom theory and hands-on lab assignments that follow NATEF guidelines. This allows the student to pursue ASE certification.

Students successfully completing the CACCP curriculum will receive a comprehensive accelerated certificate of completion from Stark State College.

Students desiring to obtain an associate degree in applied science in automotive technology can chose to add the academic courses that are listed in the two-year comprehensive automotive program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
AUT 121	Automotive Technical Skills	2
AUT 122	Automotive Systems and Engine Technology	4
AUT 123	Engine Diagnosis and Major Service	4
AUT 125	Automotive Electrical and Accessory Systems	4
		4
Semester II		
AUT 124	Vehicle Chassis Systems	4
AUT 126	Auto HVAC Systems	2
AUT 221	Fuel and Emissions Management Systems	3
AUT 223	Advanced Auto Electronics	3
AUT 227	Computerized Vehicle Control	3
		15
Semester III		
AUT 222	Engine System Performance Diagnosis	3
AUT 225	Automotive Drivetrains I	3
AUT 226	Automotive Drivetrains II	3
AUT 233	Automotive Diagnostic Applications	2
		11

40 TOTAL CREDIT HOURS

COLLEGE TECH PREP

A college tech prep participant

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Automotive and Transportation Technology

Comprehensive Automotive Program Career Enhancement Certificate

The Stark State College comprehensive automotive career enhancement certificate is a two-year program that includes only the automotive classes that are in the two-year associate degree program.

The curriculum is designed to provide students with information about the service and repair of all of today's automobiles. Emphasis is placed on the three major domestic manufacturers (General Motors, Ford and Daimler Chrysler) and some foreign vehicles (Toyota, Honda, Isuzu, and Mazda, etc.).

The comprehensive automotive career enhancement certificate program includes all of the tasks from the nationally recognized NATEF task list, for all eight ASE specialty areas.

Students graduating from the comprehensive automotive career enhancement certificate program will receive a comprehensive automotive certificate of completion.

Students desiring to obtain an associate degree in applied science in automotive technology must complete the additional academic courses that are listed in the two-year associate degree comprehensive automotive program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
AUT 121	Automotive Technical Skills	2
AUT 122	Automotive Systems and Engine Technology	4
AUT 123	Engine Diagnosis and Major Service	4
		10
Semester II		
AUT 124	Vehicle Chassis Systems	4
AUT 125	Automotive Electrical and Accessory Systems	4
AUT 126	Automotive HVAC Systems	2
		10
Semester III		
AUT 221	Fuel and Emissions Management Systems	3
AUT 227	Computerized Vehicle Control	3
AUT 223	Advanced Automotive Electronics	3
AUT 427	Alternative Fuels and Advanced Automotive Technologies	2
		11
Semester IV		
AUT 225	Automotive Drivetrain I	3
AUT 226	Automotive Drivetrain II	3
AUT 222	Engine Systems Performance Diagnosis	3
AUT 233	Automotive Diagnostic Applications	2
		11

42 TOTAL CREDIT HOURS

COLLEGE TECH PREP

A college tech prep participant

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Automotive and Transportation Technology

Honda Pact Career Enhancement Certificate

The Honda professional automotive career training (PACT) program can be pursued as a career enhancement certificate or as an associate degree. Stark State's Honda PACT option is an integral part of the comprehensive automotive program. Students selecting the Honda PACT option begin by enrolling in the comprehensive automotive program and select either a career enhancement certificate option or an associate degree path. As students successfully complete the related technical courses in the comprehensive program, they will concurrently take the Honda modules.

The Honda PACT program is designed exclusively for the student who is seeking a career as a service technician at a Honda/Acura dealership. The Honda PACT curriculum is produced by American Honda Motor Company, Inc. It prepares the student for a career with Honda by providing Honda's core certification courses that are needed for advancement at a Honda/Acura dealership.

The Honda PACT curriculum is a blend of classroom theory and hands-on lab assignments. The curriculum follows both the ASE and NATEF guidelines. This allows the student to pursue ASE certification.

Since students will be on a one-year or two-year path, the sequence of Honda classes may vary from one semester to the next based on the individual students needs. Honda PACT classes are scheduled to run on selected Fridays throughout each semester, including the summer, and are a full day in length.

SUGGESTED COURSE SEQUENCE		Credit Hours
AUT 171	Introduction to Honda PACT	1
AUT 172	Honda Engine Mechanical	2
AUT 173	Honda Steering and Suspension	1
AUT 174	Honda Braking Systems	1
AUT 175	Honda Electrical Systems	2
AUT 176	Honda HVAC Systems	1
AUT 277	Honda Computerized Engine	2
AUT 271	Honda Fuel and Emission System	1
AUT 275	Honda Manual Transmissions	1
AUT 276	Honda Automatic Transmissions	1
AUT 273	Honda Advanced Diagnostic Applications	1
ETD 224	Engineering Co-op+	4
		18

18 TOTAL CREDIT HOURS

PACT Professional Automotive Career Training

COLLEGE TECH PREP A college tech prep participant

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Automotive and Transportation Technology

Toyota T-Ten One-Year Career Enhancement Certificate

The Toyota technical education network (T-TEN) program is designed exclusively for the student who is seeking a career as a service technician at a Toyota dealership. The T-TEN curriculum is produced by the University of Toyota. It prepares the student for a career with Toyota by providing Toyota's core certification courses that are needed for advancement at a Toyota dealership.

The T-TEN program can be pursued as a one-year career enhancement certificate or as an associate degree. Stark State's T-TEN option is an integral part of the comprehensive automotive program. Students selecting the T-TEN option begin by enrolling in the comprehensive automotive program and select either a career enhancement certificate option or an associate degree path. **As the student successfully completes the related technical courses in the comprehensive program, they will concurrently take the Toyota T-TEN modules. These courses may be taken as technical electives in the comprehensive automotive program.**

The T-TEN curriculum is a blend of classroom theory and hands-on lab assignments. The curriculum follows both the ASE and NATEF guidelines. This allows the student to pursue ASE certification.

Since students will be on a one-year or two-year path, the sequence of Toyota classes may vary from one semester to the next based on the individual student's needs. Toyota classes are scheduled to run on selected Fridays throughout each semester, including the summer, and are a full day in length.

SUGGESTED COURSE SEQUENCE		Credit Hours
AUT 141	Vehicle Chassis Systems	2
AUT 142	Auto Electrical Systems Toyota	2
AUT 143	Auto HVAC Systems Toyota 750	1
AUT 251	Automotive Drivetrains I	1
AUT 252	Automotive Drivetrains II	1
AUT 253	Computerized Vehicle Controls	2
ETD 224	Engineering Co-op+	4
		13

13 TOTAL CREDIT HOURS

\+ ETD 224 Engineering Co-op is an elective course which should be taken by Toyota/Lexus or Honda/Acura employees only.

A college tech prep participant

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Automotive and Transportation Technology

GM STC Career Enhancement Certificate

The GM STC courses are modular courses. The information contained in each modularized class is an integral part of one of the courses in the comprehensive automotive program. These courses can be taken as electives by students enrolled in the comprehensive automotive program. Students who elect to take the GM STC modular courses without taking the comprehensive classes can receive credit for selected classes within the comprehensive automotive program upon completion of all of the modules related to a given class.

The GM STC modular courses are designed for students who are seeking a career as General Motors service technicians. The curriculum is produced as a joint effort between Stark State College and General Motors. The curriculum includes: computer based training, interactive distance learning, classroom theory, and hands-on lab assignments.

Upon completion of all of the GM STC modular courses, the student will achieve recognition as a GM World Class Technician.

SUGGESTED COURSE SEQUENCE		Credit Hours
AUT 144	Electrical/Electronics Terminals and Connectors	1
AUT 145	Advanced HVAC Diagnostics	1
AUT 146	Electronic Suspension Systems	1
AUT 147	Foundation Brakes/ABS System Service	1
AUT 148	Engine Mechanical Diagnosis and Measurement	2
AUT 150	GM Moveable Roof Systems	2
AUT 241	Body Control Systems	2
AUT 242	Entertainment Systems	2
AUT 243	GM Air Bag Systems	1
AUT 244	Allison LCT 1000 Automatic Transmission Diagnosis and Repair	2
AUT 245	Vibration Correction	1
AUT 246	Rear Axle and Propeller Shaft	2
AUT 247	Vehicle Emissions, Enhanced Testing, and Diagnostics	1
AUT 248	GM Powertrain Performance	2
AUT 249	Diesel Engine Performance 2001	2
AUT 250	Automotive Transmission/Transaxle Diagnostics	2
AUT 421	GM Waterleak and Wind Noise Management	1
AUT 422	GM Diesel Engine Performance Certification Assessment	1
AUT 423	GM Manual Drivetrain and Axle Certification Assessment	1
AUT 424	GM HVAC Certification Assessment	1
AUT 425	GM Engine Performance Certification Assessment	1
AUT 426	GM Automatic Transmission – Transaxle Diagnostics Certification Assessment	1
AUT 428	GM Engine Repair Certification Assessment	1
AUT 429	Electrical/Electronics Certification Assessment	2
AUT 430	GM Steering and Suspension Certification Assessment	1
AUT 431	GM Brakes Certification Assessment	1
		36

36 TOTAL CREDIT HOURS

ACDelco Career Enhancement Certificate

The ACDelco courses are designed for technicians who desire to work in ACDelco TSS shop. Classes will be scheduled based on demand and student enrollment will be on the day of the class. These courses will use ACDelco curriculum designed to meet the exact training requirements of the ACDelco TSS program.

The ACDelco courses are modular courses. The information contained in each modularized class is an integral part of one of the courses in the comprehensive automotive program. These courses can be taken as electives by students enrolled in the comprehensive automotive program. Students who elect to take the ACDelco courses without taking the comprehensive classes can receive credit for selected classes within the comprehensive automotive program upon completion of all of the modules related to a given class.

SUGGESTED COURSE SEQUENCE		Credit Hours
AUT 321	ACDelco HVAC System Diagnostics	1
AUT 322	ACDelco Duramax 6600 Diesel Engine Performance	1
AUT 323	ACDelco Braking Systems	1
AUT 324	ACDelco GM OBD-II Diagnostics	1
AUT 325	ACDelco Chrysler OBD-II EEC Diagnostics	1
AUT 326	ACDelco Ford OBD-II EEC Diagnostics	1
AUT 327	ACDelco Honda Emissions and Driveability	1
AUT 328	ACDelco Engine Performance	1
AUT 329	ACDelco Body Controls and Communication Sys.	1
AUT 330	ACDelco GM Supplemental Restraints	1
AUT 331	ACDelco Battery, Starting, and Charging Systems	1
AUT 332	ACDelco Vibration Control Diagnosis	1
AUT 333	ACDelco Advanced Driveability	1
AUT 334	ACDelco Engine Performance Fuel and Air Induction Systems	1
AUT 335	ACDelco Electrical Circuit Diagnosis and Repair	1
AUT 336	ACDelco Emission System Diagnosis	1
AUT 337	ACDelco Engine Performance Computer Controls and Ignition Diagnosis	1
AUT 339	ACDelco HVAC Advanced Refrigerant Diagnosis	1
AUT 340	ACDelco HVAC Controls, Operation, and Diagnosis	1
AUT 341	ACDelco Engine Performance Fuel and Air Induction Systems	1
		20

20 TOTAL CREDIT HOURS

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Automotive and Transportation Technology

CAT Lift Truck Career Enhancement Certificate

The CAT Lift Truck (CLT) program can be pursued as a certificate of completion or as an associate degree. Stark State's CLT option is an integral part of the comprehensive automotive program. Students selecting the CLT option begin by enrolling in the comprehensive automotive program and select either a certificate of completion option or an associate degree path. As the student successfully completes the related technical courses in the comprehensive program, they will concurrently take the Caterpillar modules.

The CAT program is designed exclusively for the student who is seeking a career as a service technician at a Caterpillar Lift Truck dealership. The CAT curriculum is produced by MCFA. It prepares the student for a career as a Caterpillar Lift Truck Technician by providing CAT's core certification courses that are needed for advancement at a CAT Lift Truck dealership.

The CAT curriculum is a blend of classroom theory and hands-on lab assignments. The curriculum follows OSHA and Industrial Truck Association (ITA) guidelines.

Since students will be on a one-year or two-year path, the sequence of CAT classes may vary from one semester to the next based on the individual students needs. CAT classes are scheduled to run on selected Fridays throughout each semester, including the summer, and are a full day in length.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
AUT 181	Intro to CAT Lift Trucks	1
AUT 182	CAT Operator Safety Training	1
AUT 183	CAT Service Information System	1
AUT 184	CAT Hydraulic Systems	1
AUT 185	CAT Internal Combustion Engine	2
		6
Semester II		
AUT 186	CAT Masts and Lift Mechanisms	1
AUT 187	CAT Electrical Systems	3
AUT 188	CAT Steering Systems	1
AUT 189	CAT Braking Systems	1
		6
Semester III		
AUT 281	CAT Differentials and Front Axles	1
AUT 282	CAT Transmissions	2
AUT 283	CAT Fuel Systems (LP, Gasoline)	2
AIT 130	Structural Maintenance Welding	3
ETD 224	Engineering Co-op+	4
		12

24 TOTAL CREDIT HOURS

\+ ETD 224 Engineering Co-op is an elective course which should be taken only by students working at an approved CAT Lift Truck facility.

CAT® Lift Trucks

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Business Management Technology

The importance of effective management cannot be overstated. In any successful business or government, the skills of good managers are essential to that success. The ability to survive, grow and profit starts with the manager's ability to envision how a business can satisfy marketplace needs. In today's business world, companies are looking for managers who understand technology, can adapt quickly to change, work well in teams, skillfully motivate employees, and realize the importance of satisfying customers.

Individuals employed in a management discipline will find this program helpful for advancement in their field. For those preparing for entrance or reentrance into the business field, the program helps prepare for a management-level position. Students will acquire a broad understanding of all functional areas of a typical business operating in today's dynamic environment. The emphasis is on the management topics of leadership, motivation, communication, and team building. Furthermore, students will be taught decision-making and methods for setting strategic and tactical goals, planning and organizing activities, leading employees, and controlling operations.

Students who successfully complete this program will be able to formulate goals and strategies to analyze the internal and external environment of business; describe and analyze patterns of organizational behavior within contemporary organizations and apply human relations skills to job situations; identify contemporary approaches to motivation and describe a variety of methods used to create and maintain a positive work environment; describe how personal and organizational values influence managers and their roles; and demonstrate and apply communications skills and quantitative methods.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
BUS123	Business Math	4
ENG124	College Composition^	3
COM121	Effective Speaking	3
		18
Semester II		
MGT121	Principles of Management	3
MKT121	Principles of Marketing	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		17
Semester III		
MGT221	Supervision	3
BUS221	Microeconomics	3
MGT227	Operations Management	4
ACC133	Managerial Accounting	4
	Technical Elective**	3
		17
Semester IV		
MGT224	Human Resource Management	3
BUS222	Macroeconomics	3
MGT223	Business Decision Making	4
SOC121	Sociology	3
ACC130	Business Law & Ethics	3
	Technical Elective**	3, 4
		19/20

71/72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

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

\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

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Business Management Technology

Business @ A Distance – Online Option

What is the Consortium?

The Business @ a Distance Consortium is a collaboration of several Ohio two-year colleges cooperating to deliver Web-based business course options to Stark State's associate of applied business degree in business management technology. Member colleges deliver online specialty courses, not offered at Stark State, that transfer into and count toward Stark State College degree requirements.

How does it work?

The student registers for the business management at Stark State and takes the majority of their course requirements just as they would as a traditional student. During the last two semesters of the sophomore year, department chair and the student select an available group of three to four courses from one of the Consortium members. The student applies for admission to the member college and takes the selected courses online. Once the courses are completed, the student requests that a transcript be sent to Stark State. The online courses are transferred to Stark State and the student is awarded the A.A.B. degree in business management with specialization in the chosen area.

Which colleges are members of the Consortium?

- Belmont Technical College
- Edison Community College
- James A. Rhodes State College
- Lakeland Community College
- Lorain Community College
- Marion Technical College
- Northwest State Community College
- Stark State College
- Terra Community College
- Washington State Community College

What consortium program options are currently available online that are not available at Stark State?

- Human Resource Management
- Tax Administration
- Industrial Supervision

Business Management Technology

Entrepreneurship Option

The small business sector is one of the fastest growing in the nation's economy.

The entrepreneurship option helps entrepreneurs launch new ventures, as well as helping existing entrepreneurs strengthen their managerial and business skills to grow their businesses.

Students will learn the fundamentals of starting and operating their own business. The program includes basic business skills as well as courses in starting and managing an entrepreneurial business. Course work covers evaluating a business opportunity, preparing a business plan, obtaining funding, planning advertising and sales promotions; marketing a product or service; developing an accounting system and financial management.

Graduates from this program will have a clear understanding what is needed to be successful as an entrepreneur. They will be able to analyze and interpret data, communicate orally and in writing. They can direct activities and staff and make sound decisions. They will be able to think critically and to supervise employees. These skills are in addition to the previously mentioned outcomes for students in business management technology.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
ENT120	Entrepreneurship	3
BUS123	Business Math	4
ENG124	College Composition^	3
HIS122	US History II	3
		17
Semester II		
ENT121	Entrepreneurial Marketing	3
ENT124	Managing Entrepreneurial Growth	3
ENT123	Entrepreneurial Accounting	3
ENT221	Entrepreneurial Finance	3
BCA120	Business Computer Applications+	4
		16
Semester III		
BUS221	Microeconomics	3
COM121	Effective Speaking	3
MGT224	Business Plan Development	3
MKT221	Sales	3
ACC229	Computerized ACCTG. Applications	3
ENG230	Business Communication	3
		18
Semester IV		
ENT223	Business Leadership	3
ENT226	Entrepreneurship Practicum-Field Project	5
ENT224	Entrepreneurial Law	3
SOC225	Cultural Diversity	3
ENT225	Global Entrepreneurship	3
		17

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score (for College Comp only)

\+ Successful completion of AOT102, AOT104, AOT105, and AOT106 may be substituted for BCA120.

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Business Management Technology

Finance Option

A company's managers must ensure that it has sufficient revenue to fund operations, in both the present and the future. Adequate funds must be available to buy materials and equipment, pay bills, purchase additional facilities and compensate employees. Finance is the planning, obtaining and managing of the company's funds in order to accomplish its objectives efficiently and effectively.

Graduates from this program will be able to understand a financial plan and be able to demonstrate a working knowledge of the various investment markets, along with having a foundation for working with the basic principles of taxation. These skills are in addition to the previously mentioned outcomes for students in the business management technology.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
BUS123	Business Math	4
ENG124	College Composition^	3
COM121	Effective Speaking	3
		18
Semester II		
MGT121	Principles of Management	3
MKT121	Principles of Marketing	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		17
Semester III		
MGT221	Supervision	3
BUS221	Microeconomics	3
FIN227	Money & Banking	3
ACC133	Managerial Accounting	4
FIN221	Investments & Securities	4
		17
Semester IV		
MGT224	Human Resource Management	3
BUS222	Macroeconomics	3
MGT223	Business Decision Making	4
SOC121	Sociology	3
ACC130	Business Law & Ethics	3
FIN220	Business Finance	4
		20

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

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Business Management Technology

Health Services Option

One of the fastest changing fields in the U.S. today is health care with its many HMOs, PPOs and other health service providers. This option is designed to blend our management program with a basic knowledge of the health care industry, anatomy, insurance, physiology, and medical terminology. The program is designed for health service managers who want to enhance their management skills.

Graduates from this program will demonstrate a working knowledge of claims processing and the health care industry, and be able to communicate using appropriate medical terminology. These skills are in addition to the previously mentioned outcomes for students in business management technology.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
BUS123	Business Math	4
ENG124	College Composition^	3
BIO125	Medical Terminology	3
		18
Semester II		
MGT121	Principles of Management	3
MKT121	Principles of Marketing	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		17
Semester III		
MGT221	Supervision	3
BUS221	Microeconomics	3
BIO101	Introduction to Anatomy & Physiology	3
COM121	Effective Speaking	3
ACC133	Managerial Accounting	4
HIT230	Health Care Delivery in the U.S.	2
		18
Semester IV		
MGT224	Human Resource Management	3
BUS222	Macroeconomics	3
MGT223	Business Decision Making	4
SOC121	Sociology	3
ACC130	Business Law & Ethics	3
MAT231	Reimbursement for Health Care Services	3
		19

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

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Business Management Technology

International Business Option

Few changes in the last ten years have had more impact on business than globalization, and this trend is expected to continue. More and more U.S. companies are becoming aware that the way to expand and remain competitive is to enter the global marketplace. Coupled with continually advancing communications technology and the expansion opportunities abroad, global business will continue to grow as rapidly.

Graduates of this program will be able to demonstrate a working knowledge of global activities such as exchange rates, the world economy, banking, imports and exports, international law, and will understand the complexities of cultural diversity. These skills are in addition to the previously mentioned outcomes for students in business management technology.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
BUS123	Business Math	4
ENG124	College Composition^	3
COM121	Effective Speaking	3
		18
Semester II		
MGT121	Principles of Management	3
MKT121	Principles of Marketing	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		17
Semester III		
MGT221	Supervision	3
BUS221	Microeconomics	3
MGT232	International Business	3
ACC133	Managerial Accounting	4
ACC130	Business Law & Ethics	3
		16
Semester IV		
MGT224	Human Resource Management	3
BUS222	Macroeconomics	3
MGT223	Business Decision Making	4
SOC225	Cultural Diversity	3
BUS223	International Economics	3
ACC134	International Law	3
		19

70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

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Business Management Technology

KSU Stark BBA Degree Option

The importance of well-educated individuals in business cannot be overstated. The more education a manager obtains, the better chances for advancement. Stark State College recognizes the value of education beyond the associate degree and has teamed up with Kent State University to provide seamless transition into their business program. Stark State students can complete this special option in business management technology to receive an associate degree, take an additional 12 credit hours of courses at Stark State, then transfer to KSU Stark with a total of 85 semester credit hours toward KSU Stark's business administration program. An additional 45 semester credit hours of degree requirements are needed through Kent State Stark to earn a BBA degree.

Students who successfully complete the Stark State program will be able to organize multiple business operations and make decisions using a team-based approach. They will demonstrate the ability to effectively communicate ideas and concepts in a professional format. They can analyze and incorporate elements from internal and external environments for goal and strategy development. They will be able to demonstrate the ability to effectively manage, motivate, and delegate resources in an ever changing business environment. They can also show the ability to utilize and analyze quantitative measures effectively.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
MTH125	College Algebra	4
MTH128	Trigonometry	1
ENG124	College Composition^	3
COM121	Effective Speaking	3
		19
Second Semester		
MGT121	Principles Management	3
MKT121	Principles of Marketing	3
MTH222	Statistics	3
ENG231	College Composition II	3
ACC132	Financial Accounting	4
		16
Semester III		
MGT221	Supervision	3
BUS221	Microeconomics	3
MGT227	Operations Management	4
ACC133	Managerial Accounting	4
PSY121	General Psychology	3
		17
Semester IV		
MGT224	Human Resource Management	3
BUS222	Macroeconomics	3
MGT223	Business Decision Making	4
SOC121	Sociology	3
ACC130	Business Law & Ethics	3
ACC223	Cost Accounting	4
		20
Additional Courses (12 total credit hours)		
PHL 122	Ethics	3
MTH221	Concepts of Calculus	3
	Two Basic Science Courses	6 (min)
	(Transfer Module) (3 credit hour minimum must involve lab class indicated by (*) - BIO 101 or *BIO126, CHM 101 or *CHM121,PHY 101 or *PHY121	
		12

72 TOTAL CREDIT HOURS NEEDED FOR AAB DEGREE

^ Based upon SSC placement score

\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

KENT STATE UNIVERSITY STARK

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Business Management Technology

Small Business Option

Small business is an American tradition. The small business management option prepares our students for self-employment and careers in small business. The option is designed for those planning to own or operate new small businesses as well as those wanting to improve operations in existing small businesses. The goal is to provide high-quality, practical business education through a curriculum designed to provide a broad choice of career paths in the small business arena.

The program includes instruction and training in evaluating small business ideas and opportunities, developing business skills, and understanding the resources necessary to go into business. The program is designed to provide potential small-business owners and managers with the knowledge to operate a successful business. Most of the courses relate to managing a small business including; management, marketing, supervision, accounting, supply chain, human resource management, and economics.

Graduates from this program will be able to design and write a well developed business plan. These skills are in addition to previously mentioned outcomes for the students in business management technology.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
BUS123	Business Math	4
ENG124	College Composition^	3
COM121	Effective Speaking	3
		18
Semester II		
MGT121	Principles of Management	3
MKT121	Principles of Marketing	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		17
Semester III		
MGT221	Supervision	3
BUS221	Microeconomics	3
MKT221	Sales	3
ACC133	Managerial Accounting	4
ACC130	Business Law & Ethics	3
		16
Semester IV		
MGT224	Human Resource Management	3
BUS222	Macroeconomics	3
MGT223	Business Decision Making	4
SOC121	Sociology	3
MGT222	Small Business Management	3
MKT226	Supply Chain Management	3
		19

70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

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Business Management Technology

Trine University Transfer Option

This option is a 2+2 degree completion program developed for students who wish to further their education in a golf-related field by obtaining their bachelor's degree from Trine University in Angola, IN.

This associate degree program in business management technology transfers completely into Trine University's school of business where the student can complete a bachelor of science degree in management or marketing with a specialization in the golf industry.

The bachelor of science degree includes courses on such industry based topics as golf club design, repair, fitting, turf maintenance, pro shop management, and golf swing instruction.

This associate degree program provides graduates with the same competencies as the regular business management degree program with more emphasis on mathematics to better prepare the student for transfer to Trine University.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
MTH125	College Algebra	4
MTH128	Trigonometry	1
ENG124	College Composition^	3
COM121	Effective Speaking	3
		19
Semester II		
MGT121	Principles Management	3
MKT121	Principles of Marketing	3
MTH222	Statistics	3
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		16
Semester III		
MGT221	Supervision	3
BUS221	Microeconomics	3
MGT227	Operations Management	4
ACC133	Managerial Accounting	4
ECA147	Advanced Microsoft Applications	3
		17
Semester IV		
MGT224	Human Resource Management	3
BUS222	Macroeconomics	3
MGT223	Business Decision Making	4
PSY121	General Psychology	3
ACC130	Business Law & Ethics	3
MGT232	International Business	3
		19

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

TRINE UNIVERSITY

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Corporate Finance Technology

The corporate finance degree covers areas of finance that are in high demand in today's business environment. As more and more companies in our area expand into the global marketplace, additional requirements and skill sets will be needed from corporate finance professionals. Even more significantly for our program, there will be an increasing demand for graduates with the knowledge and skills highlighted in this program.

The successful corporate finance professional is an individual with the knowledge and skills to add great wealth and value to the employer. The importance of the financial manager has increased significantly in the last two decades.

Graduates from our corporate finance program will have a variety of job opportunities available to them. Those job opportunities may lead to positions of increasing responsibility within the corporate finance function.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BUS121	Business Administration	4
BCA120	Business Computer Applications++	4
BUS123	Business Mathematics	4
ACC132	Financial Accounting+	4
		19
Semester II		
ENG230	Business Communication	3
ACC127	Quantitative Business Statistics	4
ACC133	Managerial Accounting	4
MGT121	Principles of Management	3
	Social Science Elective*	3
		17
Semester III		
COM121	Effective Speaking	3
BUS221	Microeconomics	3
ACC130	Business Law & Ethics	3
ACC228	Business Taxation	4
ACC238	Financial Statement Analysis	4
		17
Semester IV		
ACC237	Fraud Examination	4
BUS222	Macroeconomics	3
FIN224	Risk Management	4
FIN227	Money & Banking	3
FIN220	Business Finance	4
		18

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Select from: PSY121, SOC121, 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 BCA120.

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Information Reporting Technology

Broadcast Captioning Option

The broadcast captioning option in the information reporting technology program is the outgrowth of the court reporting field and is a highly developed skill that is used to translate spoken communication into visual communication. A stenotype machine is connected to a state-of-the-art computer with special closed-captioning software that allows the writer to caption the spoken word in various TV/news programs, classrooms, conventions, and conferences. A broadcast captioner can assist millions of deaf and hard-of-hearing persons by captioning television and news programs. VITAC Corporation, a leading captioning company nationwide, partners with Stark State to provide the software, educational, and technical support. Stark State is a training site for VITAC Corporation for transitional reporters seeking a career change to captioning.

The information reporting technologies program offers distance learning opportunities through Web-based education. Virtually anyone who has access to a computer will be able to take the program online, but the student will be required to have a computerized steno machine and specific reporting software before taking distance learning courses.

Stark State also offers a certificate of competency in broadcast captioning for working reporters interested in transitioning into broadcast captioning.

The goal is that graduates will demonstrate the use of good grammar, punctuation and editing skills for transcription preparation and production; conduct research and realtime writing dictionary maintenance for broadcast reporting; communicate clearly and concisely; utilize all information reporting technology; exemplify a high standard of ethics as an information reporting professional; and demonstrate employability skills and characteristics as an information reporting professional.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BCA120	Business Computer Applications+	4
AOT130	Communication & Transcription Skills	3
IRT121	Realtime Theory I	4
	Social Science Elective*	3
		17
Semester II		
BUS123	Business Math	4
BIO101	Introduction to Anatomy & Physiology	3
	Non-Technical Elective***	3
IRT122	Realtime Theory II	4
IRT229	Realtime Software Application (8 weeks)	1
IRT132	Realtime Writing I (8 weeks)	1
		16
Summer I		
RT129	Speed Building I	4
IRT236	Advanced Theory Principles	3
		7
Semester III		
ENG230	Business Communication	3
BUS121	Business Administration	4
	IRT Technical Elective**	3
IRT130	Speed Building II	4
IRT230	Basic Broadcast Captioning	3
IRT237	Realtime Writing II (8 weeks)	1
		18
Semester IV		
ACC130	Business Law and Ethics	3
IRT235	Advanced Broadcast Captioning	3
IRT123	Speed Building III	4
IRT232	Information Reporting Internship	2
IRT239	Realtime Writing III (8 weeks)	1
IRT238	Realtime Writing IV (8 weeks)	1
		14

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Students may select: PSY121 or SOC121

** Students may select: IRT131, BIO127, CHM101, PSC121, ASL121 or HIS121

*** Student may select: PSC121, COM121, BUS222, or BIO125

\+ Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for BCA120

Students are required to purchase a computerized stenograph machine and Case Catalyst 4 v.8-10 student version software must be purchased prior to beginning this program.

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Information Reporting Technology

Judicial Reporting Option

Judicial reporting has joined the ranks of the information technologies professions because computers are an integral part of information reporting. Information reporters are using their knowledge and skill to serve as information managers in complicated trials. Freelance reporters now have the ability to capture their deposition in digital format.

The information reporting technologies program offers distance learning opportunities through Web-based education. Virtually anyone who has access to a computer will be able to take the program online, but the student will be required to have a computerized steno machine and specific reporting software before taking distance learning courses.

Stark State now offers the information reporting technology program entirely through distance learning. It affords students the opportunity to complete a college education via distance education from home and at their convenience and it affords students the opportunity to learn with flexibility of time and place while maintaining access to faculty and other College services. E-learning is a unique alternative to traditional on-campus courses. Virtually anyone who has access to a computer will be able to take the program online, but the student will be required to have specific hardware/software equipment before starting the information reporting technology program through distance learning.

The goal is that graduates will demonstrate the use of good grammar, punctuation and editing skills for transcription preparation and production; conduct research and realtime writing dictionary maintenance for judicial reporting; communicate clearly and concisely; utilize all information reporting technology; exemplify a high standard of ethics as an information reporting professional and demonstrate employability skills and characteristics as an information reporting professional.

Graduation requirements for judicial reporting option

Specific graduation requirements must be passed for the judicial option: transcribe a minimum of three 5-minute, 2-voice testimony tests with a minimum of 95% accuracy dictated at a minimum speed of 225 wpm; transcribe three 5-minute jury charge tests with a minimum of 95% accuracy dictated at a minimum of 200 wpm; and transcribe three 5-minute literary tests with a minimum of 95% accuracy dictated at a minimum of 180 wpm; and transcribe a simulated state certification test, state qualifying exam, or RPR skills test within the allotted test transcription guidelines.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BCA120	Business Computer Applications+	4
AOT130	Communication & Transcription Skills	3
IRT121	Realtime Theory I	4
	Social Science Elective*	3
		17
Semester II		
BUS123	Business Math	4
BIO101	Introduction to Anatomy & Physiology	3
IRT131	Legal Terminology	3
IRT122	Realtime Theory II	4
IRT229	Realtime Software Application (8 weeks)	1
IRT132	Realtime Writing I (8 weeks)	1
		16
Summer I		
IRT129	Speed Building I	4
IRT236	Advanced Theory Principles	3
		7
Semester III		
ENG230	Business Communication	3
BUS121	Business Administration	4
	Non-Technical Elective***	3
IRT231	Judicial Procedures	3
IRT130	Speed Building II	4
IRT237	Realtime Writing II (8 weeks)	1
		18
Semester IV		
ACC130	Business Law and Ethics	3
	IRT Technical Elective**	3
IRT123	Speed Building III	4
IRT232	Information Reporting Internship	2
IRT239	Realtime Writing III (8 weeks)	1
IRT238	Realtime Writing IV (8 weeks)	1
		14

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Students may select: PSY121 or SOC121

** Students may select: IRT230, IRT233, BIO125 or PSC121

*** Student may select: PSC121, COM121, BUS222, or BIO125

\+ Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for BCA120

Students are required to purchase a computerized stenograph machine and court reporting student realtime software prior to beginning this program.

Graduation requirements meet NCRA's CASE standards

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Information Reporting Technology

Realtime Transcription Option

Realtime transcriptionists who develop the ability to use the shorthand machine as the input device for text entry are availing themselves of a multitude of job opportunities. In the "Information Age," companies are searching for staff that can input text at high accurate rates of speed. These companies are looking nationwide for well-trained information reporters who have good vocabulary, excellent English skills, good transcription skills, and the ability to turn their work around quickly.

The realtime transcription option provides training to students on how to use the shorthand machine as an input device in lieu of the QWERTY keyboard and, therefore, produce text at lightning fast speeds. The steno strokes are translated as they are written, using a stored dictionary, and the resulting English text is input directly into the selected PC application. Not only can the reporters write text, they can also use steno strokes to send commands to the operating system or the application. The reporter can conduct all word processing functions from the shorthand machine and produce the document in a timely fashion without ever touching the keyboard or the mouse.

The information reporting technologies program offers distance learning opportunities through Web-based education.

The goal is that graduates will demonstrate the use of good grammar, punctuation and editing skills for transcription preparation and production; communicate clearly and concisely; utilize all information reporting technology; exemplify a high standard of ethics as an information reporting professional and demonstrate employability skills and characteristics as an information reporting professional.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
BCA120	Business Computer Applications+	4
AOT130	Communication & Transcription Skills	3
IRT121	Realtime Theory I	4
		14
Semester II		
BUS123	Business Math	4
BIO101	Introduction to Anatomy & Physiology	3
	Non-Technical Elective***	3
IRT122	Realtime Theory II	4
IRT229	Realtime Software Application (8 weeks)	1
IRT132	Realtime Writing I (8 weeks)	1
		16
Summer		
IRT129	Speed Building I	4
IRT236	Advanced Theory Principles	3
		7
Semester III		
ENG230	Business Communication	3
BUS121	Business Administration	4
	IRT Technical Elective**	3
IRT130	Speed Building II	4
IRT 237	Realtime Writing II (8 weeks)	1
		15
Semester IV		
ACC130	Business Law and Ethics	3
	Social Science Elective*	3
	IRT Technical Elective**	3
	IRT Technical Elective**	3/4
IRT239	Realtime Writing III (8 weeks)	1
		13/14

65/66 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Students may select: PSY121 or SOC121

** Students may select: IRT123, IRT131, IRT231, IRT230, IRT235, AOT121, AOT127, AOT239, MTC121, BIO123, or BIO124

*** Student may select: PSC121, COM121, BUS222, or BIO125

\+ Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for BCA120

Students are required to purchase a computerized stenograph machine and Case Catalyst 4 v.8-10 student version software must be purchased prior to beginning this program.

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Information Reporting Technology

Scopist Option

Scopists are hired by court reporters to edit and proofread transcripts while the reporters work in court or take depositions. According to the National Court Reporters Association (NCRA), there are an estimated 50,000 court reporters in the United States. Scoping is an ideal career for a person who prefers to work at home and provides flexibility in choosing how many hours you want to work.

The job of the scopist is to edit the stenograph-to-English translation of the trial proceeding recorded by the reporter and check for any mistranslations in order to correct words, such as proper names and any technical terms. A scopist uses specialized reporting software to review, edit and proofread the court transcript that can easily be transferred via online services.

The information reporting technologies program offers distance learning opportunities through Web-based education.

The goal is that graduates will demonstrate the use of good grammar, punctuation and editing skills for transcription preparation and production; communicate clearly and concisely; utilize all information reporting technology; exemplify a high standard of ethics as an information reporting professional and demonstrate employability skills and characteristics as an information reporting professional.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
AOT130	Communication & Transcription Skills	3
AOT121	Keyboarding/Formatting	3
IRT131	Legal Terminology	3
IRT133	Theory for Scopists	4
		16
Semester II		
BUS123	Business Math	4
BIO125	Medical Terminology	3
ENG230	Business Communication	3
BCA120	Business Computer Applications+	4
IRT229	Realtime Software Application (8 weeks)	1
		15
Semester III		
BUS121	Business Administration	4
BIO101	Introduction to Anatomy & Physiology	3
	Non-Technical Elective***	3
IRT231	Judicial Procedures	3
ENT120	Entrepreneurship	2
		15
Semester IV		
ACC130	Business Law and Ethics	3
ACC121	Principles of Accounting I	4
	Social Science Elective*	3
	IRT Technical Elective**	3/4
IRT233	Transcription & Editing for Scopists	3
		16/17

62/63 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

* Students may select: PSY121 or SOC121

** Students may select: IRT129, PSC121, ENT121, or ENT221

*** Student may select: PSC121, COM121, or BUS222

\+ Successful completion of AOT102, 104, 105, and 106 is equivalent to and may be substituted for BCA120

Case Catalyst 4 v.8-10 student version software must be purchased by second semester of this program.

NOTE: Courses may not be offered each semester; students should plan accordingly.

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Legal Assisting Technology

Legal administrative assistants are employed in private law firms, offices of public defenders, court systems, government agencies, corporate legal departments, insurance companies, banks, real estate agencies, community service agencies and programs, consumer organizations and health care facilities. Today's law firms are redefining their management structure out of economic necessity. Effective use of support staff is becoming increasingly important.

The program prepares students to assist attorneys in the performance of their professional duties.

The goal is that graduates will be able to organize work areas, use legal resources, make decisions, and exhibit proficiency in the use of legal office procedures and legal information systems; apply practical knowledge and utilize technical skills such as data input methods (keyboarding and voice recognition), transcription, proofreading, legal document production, integrated computer applications, legal research, records management, and use of the Internet; demonstrate employability skills and professionalism in legal office occupations, and work in individual, team and group settings; must be able to form ideas and information verbally and in written form, use computational skills for solving legal office problems and making analytical judgments; acquire, organize and evaluate information to make decisions and solve problems in legal environments.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
AOT130	Communication & Transcription Skills	3
AOT121	Keyboarding/Formatting	3
BCA220	Integrated Solutions for Business Problem Solving^^	4
BUS121	Business Administration	4
IRT131	Legal Terminology	3
		20
Semester II		
AOT127	***Word Processing – Microsoft Word***	3
ENG230	Business Communication	3
AOT129	Keyboarding Skill Building	1
AOT224	Legal Office Procedures	3
AOT132	Records Management	3
BUS123	Business Math^	4
		17
Semester III		
ACC121	Principles of Accounting	4
ACC130	Business Law and Ethics	3
	Social Science Elective*	3
COM121	Effective Speaking	3
AOT239	Legal Transcription	3
AOT106	Computer Applications – Microsoft Access	1
		17
Semester IV		
AOT226	***Spreadsheets – Microsoft Excel***	3
BUS221	Microeconomics	3
AOT237	Legal Office Applications	3
AOT232	AOT Practicum	3
AOT235	Legal Research and Writing	3
AOT108	Microsoft Outlook	1
AOT107	Digital Technologies	1
		17

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

^^ Based upon computer entrance test score.

* Student may select from: PSY121 or SOC1

Students who are enrolled at the College for at least one semester and who have passed the Professional Legal Secretary (PLS) examination are eligible to receive credit toward an associate of applied business degree in legal assisting technology, subject to the review and approval of the appropriate department chair.

Bold italicized courses indicate courses that contain content for Microsoft Office Specialist (MOS) certification.

In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately.

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Legal Assisting Technology

One-year Certificate
Legal Assisting

Stark Sate College offers a one-year technical certificate program in legal assisting for non-degree-seeking students. Students selecting the certificate program may apply credits earned in this one-year program to the associate degree. Students will be awarded a certificate in legal assisting upon completion of the program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
AOT121	Keyboarding/Formatting	3
BCA220	Integrated Solutions for Business Problem Solving^^	4
IRT131	Legal Terminology	3
AOT224	Legal Office Procedures	3
		16
Semester II		
AOT127	***Word Processing – Microsoft Word***	3
ENG230	Business Communication	3
BUS123	Business Math^	4
AOT239	Legal Transcription	3
AOT237	Legal Office Applications	3
ACC130	Business Law and Ethics	3
		19

35 TOTAL CREDIT HOURS

^ Based upon SSC placement score.

^^ Based on computer entrance test score.

Students who are enrolled at the College for at least one semester and who have passed the Professional Legal Secretary (PLS) examination are eligible to receive credit toward an associate of applied business degree in legal assisting technology, subject to the review and approval of the appropriate department chair.

Bold italicized courses indicate courses that contain content for Microsoft Office Specialist (MOS) certification.

In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately.

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Marketing Management Technology

The careers involved in getting goods and services to market make marketing management a diverse and fascinating field. Marketing careers often provide great opportunities for creativity, personal accomplishment and financial reward.

Marketing managers implement the traditional marketing mix to develop tactics for the product, price, promotion and distribution. Marketing professionals determine the demand for goods offered by the business and by its competitors and they also identify potential customers. This includes working with advertising and sales managers to promote the firm's products and services to attract potential customers.

Students who successfully complete this program will be able to demonstrate proficiency with developing strategies to identify and solve marketing and business problems, identify target markets for specific goods and services, emphasize the value in providing products to a buyer, create a methodology to gain valuable test marketing information, and develop a comprehensive marketing plan.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
BUS123	Business Math	4
ENG124	College Composition^	3
COM121	Effective Speaking	3
		18
Semester II		
MKT121	Principles of Marketing	3
BUS221	Microeconomics	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		17
Semester III		
MGT121	Principles of Management	3
BUS222	Macroeconomics	3
MKT221	Sales	3
MKT222	Advertising	3
ACC133	Managerial Accounting	4
MKT227	Consumer Behavior	3
		19
Semester IV		
MKT229	Market Planning	4
MKT233	Market Research	3
MKT236	E-Marketing	3
SOC121	Sociology	3
ACC130	Business Law & Ethics	3
		16

70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

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Marketing Management Technology

E-Commerce Marketing Option

The widespread adoption of intranets, extranets, and the acceptance of the Internet as a business platform have created a foundation for electronic commerce that offers the potential for organizations to streamline complex processes, lower costs, and improve productivity. Business to business e-commerce is poised for rapid growth.

Students who successfully complete this program will be able to develop a Web site; understand the role of the Internet/intranet; and use the Internet for obtaining research information. These skills are in addition to the previously mentioned outcomes for students in the marketing management technology program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
ECA228	Internet/Intranet Design & Development	3
BUS123	Business Math	4
ENG124	College Composition^	3
COM121	Effective Speaking	3
		17
Semester II		
MKT121	Principles of Marketing	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
ECA154	Internet Design Tools	3
		17
Semester III		
MGT121	Principles of Management	3
BUS221	Microeconomics	3
MKT222	Advertising	3
ACC133	Managerial Accounting	4
ECA138	Web Design Graphics	3
		16
Semester IV		
MKT229	Market Planning	4
BUS222	Macroeconomics	3
MKT236	E-Marketing	3
ECA225	Client Side Scripting	3
SOC121	Sociology	3
ACC130	Business Law & Ethics	3
		19

69 TOTAL CREDIT HOURS

^ Based upon SSC placement score

COLLEGE TECH PREP

A college tech prep participant

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Marketing Management Technology

Logistics Option

Logistics is that part of the supply chain process that plans, implements and controls the efficient, effective flow and storage of goods, services, and related information from point of origin to point of consumption in order to meet customer requirements. It includes the areas of transportation, warehousing, order processing, vender negotiation, and distribution.

Effective logistics management can improve a firm's marketing effort by establishing consistent and dependable customer service levels.

The U.S. has one of the world's most highly developed logistics infrastructures, giving consumers and businesses access to an enormous variety of goods and services.

Students who successfully complete this program will have an understanding of the role of logistics in national and multinational business activities, as well as be able to use analytical tools and techniques to solve problems in transportation, ordering, warehousing, and distribution. These skills are in addition to the previously mentioned outcomes for students in the marketing management technology program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
BUS123	Business Math	4
ENG124	College Composition^	3
COM121	Effective Speaking	3
		18
Semester II		
MKT121	Principles of Marketing	3
BUS221	Microeconomics	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		17
Semester III		
MGT121	Principles of Management	3
BUS222	Macroeconomics	3
MKT226	Supply Chain Management	3
MKT236	E-Marketing	3
ACC133	Managerial Accounting	4
SOC121	Sociology	3
		19
Semester IV		
MKT229	Market Planning	4
MKT233	Market Research	3
MKT234	Principles of Transportation	3
MKT235	Introduction to Logistics	4
ACC130	Business Law & Ethics	3
		17

71 TOTAL CREDIT HOURS

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\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

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Marketing Management Technology

Sales Option

Marketing jobs often provide great opportunities for creativity, personal accomplishment and financial rewards. Personal selling is a marketing communication process by which a company representative interacts directly with the customer to communicate about the good or service.

Personal selling can be one of the most important and lucrative jobs not only in marketing, but for the business in general. It is often the starting point for new graduates to familiarize themselves with a firm's products and services and also learn the importance of customer satisfaction in the success of any operation.

In many firms, the people working in the marketing department began their careers with the sales force. Sales experience gives them an understanding of the problems faced by salespeople, as well as the needs of customers. The people who determine marketing strategy must understand exactly how the products or services are sold and the buying methods of customers.

Graduates from this program will be able to make presentations in a professional manner using the latest software, understand the concepts of developing long term customer relationships between seller and buyer, be able to develop a sales force strategy, and understand the relationship of personal selling with the company's overall marketing program. These skills are in addition to the previously mentioned outcomes for students in the marketing management technology program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration	4
BCA120	Business Computer Applications+	4
BUS123	Business Math	4
ENG124	College Composition^	3
COM121	Effective Speaking	3
		18
Semester II		
MKT121	Principles of Marketing	3
BUS221	Microeconomics	3
ACC127	Quantitative Business Statistics	4
ENG230	Business Communication	3
ACC132	Financial Accounting	4
		17
Semester III		
MGT121	Principles of Management	3
BUS222	Macroeconomics	3
MKT221	Sales	3
ACC133	Managerial Accounting	4
MKT227	Consumer Behavior	3
		16
Semester IV		
MGT221	Supervision	3
MKT226	Supply Chain Management	3
MGT224	Human Resource Management	3
MKT229	Market Planning	4
SOC121	Sociology	3
ACC130	Business Law & Ethics	3
		19

70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Successful completion of AOT102, AOT104, AOT105 and AOT106 may be substituted for BCA120.

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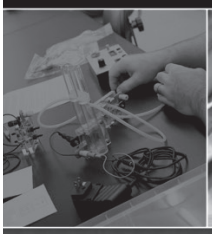

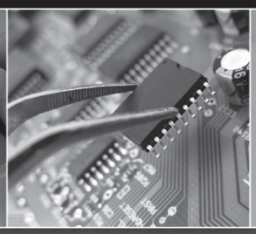

Students in the Engineering Technologies Division may pursue the associate of applied science degree in a variety of engineering technology programs such as: applied industrial technology, civil engineering technology, design engineering technology, electric power utility technology, electrical engineering technology, electrical maintenance technology, electronic engineering technology, environmental, health and safety technology, heating, ventilation and air conditioning technology and mechanical engineering technology. Engineering technology is a field in which scientific principles and techniques are applied toward solutions of problems in business and industry. The engineering technician typically works as a member of a professional team (technician/technologist), assisting the engineer and coordinating work performed by skilled workers. Areas of responsibility include: research, design, development, supervision, sales and production. Applied industrial technology technicians use similar abilities, with emphasis on areas of supervision, operations and skilled maintenance in a variety of areas. These areas include health care facilities, educational institutions and industrial settings.

In addition to these programs, the Engineering Technologies Division offers a number of career enhancement certificates designed to enhance specific sets of skills.

Bachelor's degree:

In most of the associate degree programs, all or nearly all courses may be applied toward a bachelor's degree in technology. Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

High school students:

High school students graduating from a college tech prep program can get a head start on their engineering technology associate degrees.

For more information, please call Stark State's Office of Admissions/ Student Services at 330-966-5450.

Engineering Technologies Division

Applied Industrial Technology

The applied industrial technology degree program offers many career paths, from industrial or facilities supervision to skilled mechanical or electrical maintenance. The comprehensive curriculum includes both basic and advanced manufacturing techniques as well as skilled mechanical and electrical maintenance principles and applications.

The program provides knowledge of traditional manufacturing methods as well as state-of-the-art and emerging technologies. Areas of expertise include robotics, precision machining, CNC, welding, hydraulics/pneumatics, pumps, pipefitting, mechanical and electrical skilled maintenance, computer control automation and advanced materials and processes.

The Stark State program is designed in a building-block style which includes apprenticeship-level courses. These courses provide the base to which students can add additional courses to allow completion of the associate degree program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
MTH101	Introduction to Algebra	4
ENG124	College Composition^	3
MET123	Material Science	2
MST121	Blueprint Reading	2
ETD121	Engineering Technology Seminar	1
		15
Semester II		
MTH125	College Algebra	4
MTH128	Trigonometry	1
MST134	Hydraulic & Pneumatic Systems+	6
EST130	Electrical Circuits and Devices	4
IET121	Industrial Management Concepts	2
		17
Semester III		
ENG221	Technical Report Writing	3
PHY121	Physics I	4
COM121/ COM123	Effective Speaking or Inter-group Communications	3
IET228	Introduction to Robotics	2
MET225	Manufacturing Processes	3
		15
Semester IV		
MST221	Mechanical Drive Components	3
	Arts/Humanities/Social Science Elective*	3
	Technical Electives**	13
		19

66 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* Select from PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121

** Select from AIT122, AIT123, IET223, AIT221, AIT124, AIT125, AIT126, AIT135, ET270, DET125, MST136, MST137, MST138, MST139, MST124, MST135, MST125, MST126, MST127, MST128, MST131, MST133, MST225, AIT137, AIT225, AIT130, AIT134, AIT222, HVC124, AET121, AET122, AET123, AET124, AIT131, AIT133, EST133, EST134

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

++ Please see course catalog for technical elective pre- and co-requisites

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Applied Industrial Technology

One-Year Certificate
Computer Numerical Control (CNC)

This one-year state-accredited technical certificate in Computer Numerical Control (CNC) is designed to prepare the student with the appropriate skills needed to work in today's world of computer numeric-controlled precision machining. This program is designed for both the individual returning to add to their existing skills and those entering the CNC precision-machining field for the first time. Upon successful completion of the CNC one-year technical certificate program, the individual will have approximately one-half the necessary credits towards an associate of applied science in applied industrial technology.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
MTH125	College Algebra	4
MTH128	Trigonometry	1
AIT122	Machine Tools	3
IET270	Dimensional Metrology & Inspection I	3
DET121/ MST121	Engineering Drawing or Blueprint Reading	2/3
		13/14
Semester II		
DET125	Basic AutoCAD	3
AIT123	Advanced Machine Tools	4
IET223	CNC Programming	4
ECA122	Computer Applications for Technical Professionals	3
		14
Summer		
AIT221	Advanced CNC Programming	3
MET123	Material Science	2
		5

32/33 TOTAL CREDIT HOURS

One-Year Certificate
Welding Technology

This one-year certificate in welding technology covers all mainstream types of welding and layout, from the basics to nuclear and pressure vessel welding. Many students will choose this program for the certification preparation for various American Welding Society (AWS) testing up through 3G and 6G certifications. Specialty welding, such as titanium, stainless steel, and aluminum will also be covered.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
MST121	Blueprint Reading	2
MTH101	Intro to Algebra	4
MST127	Principles of Welding	3
MST128	Welding Lab	3
AIT122	Machine Tools	3
		15
Semester II		
MTH128	Trigonometry	1
MST136	3G Welding Certification Preparatory	2
MST137	6G Welding Certification Preparatory	5
MST138	Preparatory Gas Tungsten Arc Welding	5
		13
Semester III		
MET123	Material Science	2
MST139	Gas Tungsten Arc Welding-Titanium/Stainless Steel	3
		5

33 TOTAL CREDIT HOURS

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Civil Engineering Technology

Civil engineering technicians assist civil engineers in planning, designing and constructing highways, bridges, dams, tunnels, airports, water supply systems, buildings and other structures.

During the planning stages of a project, technicians estimate costs, prepare specifications for materials and work in design, drafting or surveying. During construction, they assist the contractor in scheduling, inspecting for conformance to blueprints and specifications and numerous other responsibilities.

The civil engineering technician graduating from Stark State College will have a basic theoretical background covered in the classroom. This background will then be enhanced by a series of strong practical laboratory applications which include both indoor and outdoor settings. Civil engineering technology students will study and use current computer programs in estimating and structural design as well as other areas.

The civil engineering technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
NG124	College Composition ^	3
MTH125	College Algebra	4
MTH128	Trigonometry	1
CET121	Building Materials & Construction Methods	3
CET122	Architectural Drafting I	3
ETD121	Engineering Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
		18
Semester II		
MTH126	Pre-Calculus	4
MET124	Statics & Strength of Materials	4
CET125	Soil Mechanics	3
DET125	Basic AutoCAD	3
PHY121	Physics I	4
		18
Semester III		
ENG221	Technical Report Writing	3
MTH221	Concepts of Calculus	3
CET227	Surveying I	3
CET223	Structural Design I	3
CET222	Concrete & Asphalt Testing	3
CET232	Land Planning & Design	3
		18
Semester IV		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
CET226	Estimating	3
CET238	Tech Project – Civil Engineering	3
CET236	Global Positioning Systems	3
CET228	Surveying II	3
	Arts/Humanities/Social Science Elective*	3
		18

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PHL122, SOC121, SOC225

COLLEGE TECH PREP
A college tech prep participant

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Civil Engineering Technology

Architectural Option

This program will provide students with the opportunity to analyze the role of architecture in the building construction industry. It will develop their understanding of the design process and the relationship of the architect, engineer and contractor.

In the classroom, laboratory and field, students will be introduced to the fundamentals of both manual and computer-aided drafting, fundamentals of design, building construction, mechanical equipment and the basic engineering of structures. The program emphasizes the establishment of basic knowledge of the aesthetics of architecture, marketable talent in drafting/design and an understanding of the principles of engineering as they relate to architecture.

Graduates of this technical major may work as technicians in architectural and engineering offices, construction estimating, general contracting, drafting, building supply firms, public agencies and as technical salespeople.

The civil engineering technology program is accredited by the technology accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ENG124	College Composition^	3
MTH125	College Algebra	4
MTH128	Trigonometry	1
CET121	Building Materials & Construction Methods	3
CET122	Architectural Drafting I	3
ETD121	Engineering Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
		18
Semester II		
MTH126	Pre-Calculus	4
MET124	Statics & Strength of Materials	4
CET123	Architectural Drafting II	3
DET125	Basic AutoCAD	3
PHY121	Physics I	4
		18
Semester III		
ENG221	Technical Report Writing	3
MTH221	Concepts of Calculus	3
CET227	Surveying I	3
CET223	Structural Design I	3
CET232	Land Planning & Design	3
CET235	Construction Management, Job Cost & Safety	3
		18
Semester IV		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
CET226	Estimating	3
CET225	Site and Building Service Systems	3
CET233	Architectural Design	3
CET234	A/E CAD	2
	Arts/Humanities/Social Science Elective*	3
		17

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PHL122, SOC121, SOC225

COLLEGE TECH PREP
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Civil Engineering Technology

Construction Management Option

This program will provide students with the opportunity to study the managerial and technological facets of the residential and commercial construction industry. By combining technical aspects of construction with management concepts, the program will prepare students to take on a supervisory role in the field. It will develop their understanding of current building codes, construction materials and processes, principles of design, and construction safety.

In the classroom, laboratory and field, students will be introduced to the fundamentals of design, building construction and the basic engineering of structures. This background will then be further enhanced by exposing students to such topics as interpreting construction documents, the importance of communication skills, project scheduling, as well as understanding job cost reports.

Graduates of this technical major may work as technicians in project management, construction estimating, general contracting, specification writing, project scheduling, construction sales, public agencies and project inspecting.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
MTH125	College Algebra	4
MTH128	Trigonometry	1
CET121	Building Materials & Construction Methods	3
CET237	Interpreting Construction Documents	2
DET125	Basic AutoCAD	3
ETD121	Engineering Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
		17
Semester II		
MTH126	Pre-Calculus	4
MET124	Statics & Strength of Materials	4
	Arts/Humanities/Social Science Elective*	3
CET125/ CET222	Soil Mechanics or Concrete & Asphalt Testing	3
PHY121	Physics I	4
		18
Semester III		
ENG124	College Composition^	3
MTH221	Concepts of Calculus	3
CET227	Surveying I	3
CET223	Structural Design I	3
CET232	Land Planning & Design	3
CET235	Construction Management, Job Cost & Safety	3
		18
Semester IV		
ENG221	Technical Report Writing	3
COM121/ COM123	Effective Speaking or Inter-group Communications	3
CET225	Site and Building Service Systems	3
CET239	Building Code Applications	2
CET226	Estimating	3
CET236	Global Positioning System	3
		17

70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PHL122, SOC121, SOC225

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Design Engineering Technology

Design engineering technicians prepare detailed drawings based on rough sketches, specifications and calculations. They determine the strength, type and quantity of materials and give the dimensions necessary to make detailed parts or assemblies.

Design engineering technicians might specialize in the design of tools, machines or products for structural, electrical, civil and mechanical systems and represent ideas graphically through traditional drawings or computer-aided design (CAD) systems.

The design engineering technology program is regularly evaluated and approved or revised by an advisory committee of professionals who represent local businesses and industries. This ongoing evaluation process ensures that design engineering technology students receive state-of-the-art education that will help them get good jobs.

The program in design engineering technology is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
DET121	Engineering Drawing	3
ENG124	College Composition^	3
ETD121	Engineering Technology Seminar	1
MTH125	College Algebra	4
MTH128	Trigonometry	1
ECA122	Computer Applications for Technical Professionals	3
DET125	Basic AutoCAD	3
		18
Semester II		
DET122	Descriptive Geometry	3
DET124	Working Drawings	3
MTH126	Pre-Calculus	4
PHY121	Physics I	4
MET124	Statics & Strength of Materials	4
		18
Semester III		
DET226	Geometric Dimensioning & Tolerancing	2
COM121/ COM123	Effective Speaking or Inter-group Communications	3
MET225/ AIT122	Manufacturing Processes or Machine Tools	3
MTH221	Concepts of Calculus	3
	Design Elective I (CAD)**	3
DET223	Kinematics	3
		17
Semester IV		
MET226	Technical Project - Mechanical and Design	2
MET228	Machine Design	4
ENG221	Technical Report Writing	3
	Arts/Humanities/Social Science Elective*	3
	Design Elective II (CAD)**	3
		15

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PHL122, SOC121, SOC225

** DET126, DET230, DET131

COLLEGE TECH PREP
A college tech prep participant

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Electric Power Utility Technology*

Line Worker Technician or Substation Technician Options

The local and regional electric utility industry has experienced a shortage of candidates for employment. Technology and required employee job skills within the electric utility industry are constantly changing; increasing the demand for a skilled workforce. The ultimate goal of the electric utility industry is to attract college-level trainees to the electric utility industry. Graduates of the Stark State electric utility technology program can expect to be actively recruited.

This program is designed to give students the advantage required for easy acquisition of desirable long-term employment in the electric utility industry. Graduates of this program will be more employable and be able to command a higher starting wage rate than the typical entry-level employee. The graduating student will also enjoy an increased likelihood of promotion through an enhanced ability to be a productive addition to a company team. The electric power utility technology degree program will prepare graduates for employment opportunities in a variety of electrical fields, with an emphasis in the line worker area. (The overhead line technology curriculum prepares the student for hands-on, transmission support system installation/ maintenance and electrical substation maintenance.)

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
ENG124	College Composition^	3
EUT121	Overhead Line Technology I or Substation Technology I (EUT123)	6
		12
Semester II		
MTH125	College Algebra	4
MTH128	Trigonometry	1
EET120	DC Circuit Analysis	4
COM121/ COM123	Effective Speaking or Inter-group Communications	3
EUT122	Overhead Line Technology II or Substation Technology II (EUT124)	6
		18
Semester III		
ETD202	Eng Tech Div - Independent Study	2
		2
Semester IV		
PHY101	Principles of Physics	4
BUS122	Basic Economics	3
EET122	AC Circuit Analysis	4
ACC130	Business Law & Ethics	3
EUT221	Overhead Line Technology III or Substation Technology III (EUT224)	6
		20
Semester V		
EET226	Transmission & Distribution	3
ENG221	Technical Report Writing	3
IET121	Industrial Management Concepts	2
EST129	Switchgear, Transformers & Controls	2
EUT222	Overhead Line Technology IV or Substation Technology IV (EUT225)	7
		17

69 TOTAL CREDIT HOURS

^ Based upon SSC placement score

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

FirstEnergy

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Electrical Engineering Technology

Our society is becoming increasingly dependent on electrical energy. Consumer products and the industrial processes required to produce them have been greatly influenced by the application of electrical and electronic technology. This has had an impact on research, development, testing, manufacturing and maintenance of existing and new products. This expanded "high-tech" effort has resulted in an increasing need for highly trained technicians in all areas of technology.

Electrical engineering technology is concerned with the generation, transmission and distribution of electrical power; its application to power and control industrial processes and wiring systems design.

Electrical technicians are part of the engineering team needed to fulfill the work in this broad and challenging field. The electrical engineering technician must have theoretical knowledge of the field and extensive hands-on experience with laboratory techniques and equipment.

Job opportunities as an electrical engineering technician include: transmission and distribution planner, industrial process control technician, electrical contractor, project manager, electrical technician, engineering assistant and service technician.

The application of electronics to electrical systems control has greatly influenced the educational background that electrical engineering technicians need. As a result, the electrical engineering technology program includes a number of electronic courses, as well as the traditional courses in electrical power, machines and control.

The electrical engineering technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA127	Programming Logic and Problem Solving	3
EET120	DC Circuit Analysis	4
ETD121	Engineering Technology Seminar	1
ENG124	College Composition^	3
MTH125	College Algebra	4
MTH128	Trigonometry	1
		16
Semester II		
EET122	AC Circuit Analysis	4
EET123	Electronic Devices & Circuits	4
EET126	Electrical Machines	4
MTH126	Pre-Calculus	4
PHY121	Physics I	4
		20
Semester III		
DET125	Basic AutoCAD	3
EET128	NEC & Electrical Systems Design	2
COM121/ COM123	Effective Speaking or Inter-group Communications	3
EET227	PLC's & Industrial Controls I	3
MTH221	Concepts of Calculus	3
ENG221	Technical Report Writing	3
ECA128	Visual Basic Programming	3
		20
EET226	Transmission & Distribution	3
EET228	PLC's & Industrial Controls II	3
EET232	Industrial Electronics	4
EET233	Technical Project – Electrical	1
	Arts/Humanities/Social Science Elective*	3
EET129	Optics	2
EET125	Circuit Manufacturing Techniques	1
		17

73 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PHL122, SOC121, SOC225

COLLEGE TECH PREP
A college tech prep participant

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Electrical Engineering Technology

Electro-Mechanical Option

This program will allow the student an in-depth study of the main principles and applications of electrical engineering technology with an emphasis on mechanical engineering technology fundamentals. In today's competitive world, electrical engineering technicians with mechanical skills are in demand.

Electrical engineering technology is concerned with the generation, transmission, and distribution of electrical power; its application to power and control industrial processes and wiring systems design. The mechanical coursework focuses on materials, stress, strain, heat, friction, and vibration.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA127	Programming Logic and Problem Solving	3
EET120	DC Circuit Analysis	4
ETD121	Engineering Technology Seminar	1
ENG124	College Composition^	3
MTH125	College Algebra	4
MTH128	Trigonometry	1
		16
Semester II		
EET122	AC Circuit Analysis	4
EET123	Electronic Devices & Circuits	4
EET126	Electrical Machines	4
MTH126	Pre-Calculus	4
PHY121	Physics I	4
		20
Semester III		
MET123	Material Science	2
MET124	Statics & Strength of Materials	4
EET227	PLC's & Industrial Controls I	3
MTH221	Concepts of Calculus	3
ENG221	Technical Report Writing	3
DET125	Basic AutoCAD	3
		18
Semester IV		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
MET222	Fluid Power	4
MET225	Manufacturing Processes	3
MET227	Thermodynamics & Heat Transfer	3
EET129	Optics	2
	Arts/Humanities/Social Science elective*	3
		18

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PHL122, SOC121, SOC225

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Electrical Maintenance Technology

This degree program provides an understanding of the installation, operation, upgrade, maintenance and repair of various electrical systems in electrical and electronic equipment. Electrical maintenance concentrates on the industrial environment and prepares students to maintain and repair electrical/electronic equipment used in government, commercial and industrial facilities.

Graduates can look forward to jobs as electronic service technicians, electrical service technicians, field service technicians, electricians, electrical maintainers and electronic or electrical equipment installers.

The curriculum includes electrical and electronic analysis and fundamentals, digital electronics, electrical and electronic trouble-shooting, digital communications, transformers, National Electric Code, electrical machines, industrial controls, programmable controllers, hydraulics, pneumatics and heating, ventilation and air conditioning. This knowledge is essential for graduates who are required to maintain and repair modern electrical/electronic equipment.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
EET120	DC Circuit Analysis	4
ETD121	Engineering Technology Seminar	1
MST134	Hydraulic & Pneumatic Systems	6
MST121	Blueprint Reading	2
MTH125	College Algebra	4
MTH128	Trigonometry	1
		18
Semester II		
EET125	Circuit Manufacturing Techniques	1
EET123	Electronic Devices & Circuits	4
EET126	Electrical Machines	4
PHY121	Physics I	4
ECA122	Computer Applications for Technical Professionals	3
EET122	AC Circuit Analysis	4
		20
Semester III		
EET128	NEC & Electrical Systems Design	2
EET227	PLC's & Industrial Controls I	3
MST221	Mechanical Drive Components	3
COM121/ COM123	Effective Speaking or Inter-group Communications	3
EST129	Switchgear, Transformers & Controls	2
ENG124	College Composition^	3
		16
Semester IV		
EET228	PLC's & Industrial Controls II	3
EST221	Electrical/Electronic Troubleshooting	3
ENG221	Technical Report Writing	3
HVC121	HVAC Principles I	3
	Technical Elective**	3
	Arts/Humanities/Social Science Elective*	3
		18

72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121

** EET232, EET244

COLLEGE TECH PREP
A college tech prep participant

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Electrical Maintenance Technology

One-Year Certificate
Automation and Robotics

This one-year technical certificate is for the individual interested in the field of industrial automation. Courses, such as Programmable Logic Controllers (PLCs), CNC Machinery, and Robotics, will cover equipment and concepts that are widely used in industry for automation. Students will also learn the most common components and sensors used with automation equipment.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer I		
MTH101	Intro to Algebra	4
ECA127	Programming and Problem Solving	3
		7
Semester I		
MST221	Mechanical Drive Components	3
IET228	Intro to Robotics	2
IET223	Computer Numerical Control	4
EST130	Electrical Circuits and Devices	4
		13
Semester II		
AIT221	Advanced CNC Programming	3
MST121	Blue Print Reading	2
EET227	PLCs and Industrial Controls I	3
MST134	Hydraulic and Pneumatics Sys.	6
		14

34 TOTAL CREDIT HOURS

One-Year Certificate
Predictive and Preventive Maintenance Technology

This one-year certificate is for the student who is interested in the field of predictive and preventive maintenance. This certificate will cover non-destructive methods of evaluating manufacturing and plant equipment. This program will introduce students to infrared scanning, ultrasonic analysis, tribology, oil/lubrication testing, and vibration analysis.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
MST121	Blueprint Reading	2
MST125	Basic Pumps	3
MST221	Mechanical Drive Components	3
MTH125	College Algebra	4
MST126	Pipefitting Principles & Applications	4
		16
Semester II		
MTH128	Trigonometry	1
AIT134	Predictive & Preventive Maint. Tech I	3
MST134	Hydraulic & Pneumatic Systems	6
EST130	Electrical Circuits and Devices	4
		14
Semester III		
ECA127	Programming Logic & Problem Solving	3
AIT222	Predictive & Preventive Maint. Tech II	3
		6

36 TOTAL CREDIT HOURS

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Electrical Maintenance Technology

One-Year Certificate
Wind Turbine Maintenance Technology

This one-year certificate covers all methods of safely and effectively evaluating and maintaining commercial wind turbine equipment. The program is a partnership with a local company to train wind turbine maintenance technicians to troubleshoot and maintain wind turbines. This type of work typically involves out-of-state travel.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
EMS123	First Responder	1
MST121	Blue Print Reading	2
AET121	Sustainable/Alternative Energy Sources	3
MST221	Mechanical Drive Components	3
ECA122	Computer Applications for Technical Professionals	3
		12
Semester II		
AIT223	Analysis/Applications of Wind Turbine Energy	3
MTH125	College Algebra	4
EST130	Electrical Circuits and Devices	4
AIT134	Predictive Maint. Tech I	3
		14
Semester III		
AIT224	Wind Turbine Energy Systems	3
ENV123	OSHA 10-Hour Safety Orientation	1
AIT222	Predictive Maint. Tech II	3
		7

33 TOTAL CREDIT HOURS

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

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Electronic Engineering Technology

Space vehicles, C.A.T. scans, personal computers, electronically controlled machines, computerized automobile functions and global communication are just a few achievements of modern industry.

Well-educated and well-trained technical personnel are needed for research, development, production, testing, installation, maintenance and repair of electronic equipment, machinery and products.

Electronic engineering technicians must have theoretical knowledge of the field and extensive "hands-on" experience in laboratory techniques and equipment. Stark State combines theoretical classroom education with "hands-on" laboratory experience to ensure excellent technical knowledge and skills.

Job opportunities available to electronic engineering technicians include: audio technician, biomedical, industrial network, customer service technician, process control technician, field engineering specialist and electronic technician.

The electronic engineering technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA127	Programming Logic and Problem Solving	3
EET120	DC Circuit Analysis	4
ETD121	Engineering Technology Seminar	1
ENG124	College Composition^	3
MTH125	College Algebra	4
MTH128	Trigonometry	1
DET125	Basic AutoCAD	3
		19
Semester II		
EET123	Electronic Devices & Circuits	4
EET125	Circuit Manufacturing Techniques	1
ECA128	Visual Basic Programming	3
MTH126	Pre-Calculus	4
EET122	AC Circuit Analysis	4
PHY121	Physics I	4
		20
Semester III		
EET262	Pulse and Digital Integrated Circuits	4
EET129	Optics	2
EET248	Workstation Interfacing	4
EET230	Electronic Circuits I	4
MTH221	Concepts of Calculus	3
		17
Semester IV		
ENG221	Technical Report Writing	3
EET225	Digital Communication & Systems Analysis	3
EET232	Industrial Electronics	4
EET235	Technical Project - Electronic	1
COM121/ COM123	Effective Speaking or Inter-group Communications	3
	Arts/Humanities/Social Science Elective*	3
		17

73 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PHL122, SOC121, SOC225

COLLEGE TECH PREP
A college tech prep participant

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Environmental, Health and Safety Technology

The associate of applied science degree in environmental, health and safety (EH&S) technology prepares students to apply their skills in science, engineering, communication and economics to issues affecting the environment. This includes such issues as the quality of air, water and land. Other areas include workplace safety, environmental regulation and compliance and various environmental systems.

Environmental career fields include data collection, instrumentation, regulation, health and safety, natural resources, waste minimization and pollution prevention. Additionally, the EH&S technician is in demand with a vast array of manufacturing firms.

The program has been developed with ongoing input from an advisory committee of industry experts to ensure the curriculum includes the knowledge and skills needed in business and industry. Graduates of Stark State's EH&S technology program will be uniquely qualified to meet the needs of both the private and public sectors as they face growing EH&S regulation and concern.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
MTH125	College Algebra	4
MTH128	Trigonometry	1
ENG124	College Composition^	3
BIO126	Science, Energy & the Environment	4
ETD121	Engineering Technology Seminar	1
CHM121	General Organic & Biological Chemistry I	4
		17
Semester II		
CHM122	General Organic & Biological Chemistry II	4
MTH222	Statistics	3
ECA122	Computer Applications for Technical Professionals	3
ENV221	OSHA 40-Hour HAZWOPER	2
ENV121	Regulations & Compliance	3
	Arts/Humanities/Social Science Elective*	3
		18
Semester III		
ENV222	Industrial Processes and Pollution Control	3
ENV223	Basic Geology/Hydrology	3
ENV224	Air Sampling, Analysis, and Control	3
COM121/ COM123	Effective Speaking or Inter-group Communications	3
	Arts/Humanities/Social Science Elective*	3
		15
Semester IV		
ENV236	Environmental Health & Safety Special Projects	3
ENG221	Technical Report Writing	3
ENV225	Solid & Hazardous Waste Sampling, Analysis & Mgmt.	3
ENV226	Water Sampling, Analysis, and Control	3
ENV228	Health & Safety	3
ENV230	OSHA 8-Hour HAZWOPER Refresher + & ++	1/4
		16/19

66/69 TOTAL CREDIT HOURS

^ Based upon SSC placement score (for College Comp only)

* Arts/Humanities/Social Science Electives: PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121

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

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

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Environmental, Health and Safety Technology

One-Year Certificate
Sustainable/Alternative Energy Technology

This one-year certificate is for the individual who is interested in the field of sustainable alternative energy technology. The program covers all methods of effectively evaluating, analyzing, implementing, and maintaining alternative sources of energy which include solar, wind, biomass to energy, geothermal, and micro-hydroelectric power systems to generate clean carbon-free energy. Also covered are alternative energy subsystems, balance of plant systems, interconnect systems, and safety procedures. With a faculty advisor the student will design and build a sustainable alternative energy system.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer I		
MTH125	College Algebra	4
AET121	Sustainable/Alternative Energy Sources	3
		7
Semester I		
AET122	Analysis/Apps of Sustainable Alternative Energy	3
EST130	Electrical Circuits and Devices	4
MET225	Manufacturing Processes	3
DET125	Basic AutoCAD	3
		13
Semester II		
AET123	Sustainable/Alternative Energy Systems	3
AET124	Sustainable/Alternative Energy Project	3
EET227	PLCs and Industrial Controls I	3
EET128	National Electric Code & Electrical System Design	2
DET230	Advanced AutoCAD (Inventor)	3
		14

34 TOTAL CREDIT HOURS

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Heating, Ventilating, and Air Conditioning Technology

Today's heating, ventilation, air conditioning and refrigeration (HVAC/R) industry makes possible modern living including medicine, technology, and personal comfort at home and on the job, as well as food preservation. In fact, it supports almost every component of our way of life. The HVAC industry is growing and becoming more technologically complex. As a result, industry leaders have mandated that employees have a variety of skills including technical problem solving, communications, and customer relations. The new HVAC employee must be a professional in every way and has great potential for advancement. Areas of opportunity include factory or distributor technical representative; factory, distributor or dealer sales professional; system design technician; distributor or dealer customer service manager; project estimator; project manager; dealer field service technician and more.

Stark State College offers a commercial/industrial lab as well as a residential lab totaling approximately 4000 square feet. Both labs have a wide variety of modern HVAC and refrigeration equipment due to the many area HVAC and refrigeration businesses that support the program with state-of-the-art equipment. The HVAC program also has a 750-square-foot full sheet metal lab.

Students have the opportunity to obtain a variety of HVAC/R certifications in the program including ARI ICE (industry competency exams) tests, EPA refrigerant certification, and NATE (North American Technician Excellence) exams. Four NATE-approved courses are also offered for those seeking re-certification.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ETD121	Engineering Technology Seminar	1
MTH101	Introduction to Algebra	4
HVC121	HVAC Principles I	3
HVC123	Sheet Metal Layout I	3
ECA122	Computer Applications for Technical Professionals	3
	Arts/Humanities/Social Science Elective*	3
		17
Semester II		
MST121	Blueprint Reading	2
ENG124	College Composition ^	3
CET121	Building Materials and Construction Methods	3
HVC122	HVAC Principles II	3
HVC227	HVAC Field Installation Techniques/ Procedures	4
PHY101	Principles of Physics	4
		19
Semester III		
MST126	Pipefitting Principles & Applications	4
HVC222	HVAC Design and Application	3
HVC223	HVAC System Operation/ Troubleshooting-Heating	3
HVC234	HVAC Electrical Systems & Applications	3
COM121/ COM123	Effective Speaking or Inter-group Communications	3
	Arts/Humanities/Social Science Elective*	3
		19
Semester IV		
HVC226	Sheet Metal Layout II	3
HVC224	HVAC System Operation/ Troubleshooting-Cooling	3
HVC236	Advanced HVAC Electrical Applications	3
ENG221	Technical Report Writing	3
	Technical Electives**	6
		18

73 TOTAL CREDIT HOURS

Following graduation from Stark State's HVAC program, students may study at Ferris State's (2+2) online program and receive a bachelor of science in HVAC technology.

^ Based upon SSC placement score

* PSY121, PSY123, PHL122, SOC121, SOC122, BUS122, BUS221, PSC121

** HVC232, HVC235, HVC237, HVC238

COLLEGE TECH PREP
A college tech prep participant

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Heating, Ventilating, and Air Conditioning Technology

One-Year Certificate
Heating, Ventilating, and Air Conditioning

This is a one-year state-accredited technical certificate in heating ventilation and air conditioning (HVAC) technology. It provides the students with many of the core technical courses in HVAC technology. This program is approximately one-half the requirements for the associate of applied science in HVAC technology. Many students who earn this one-year technical certificate continue in the program to get an associate degree in HVAC technology.

Students also have the opportunity to take the EPA certification test.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
HVC121	HVAC Principles I	3
HVC123	Sheet Metal Layout I	3
ECA122	Computer Applications for Technical Professionals	3
MTH101	Introduction to Algebra	4
		13
Semester II		
HVC122	HVAC Principles II	3
HVC227	HVAC Field Installation Techniques/ Procedures	4
HVC234	HVAC Electrical Systems & Applications	3
HVC223	HVAC System Operation/ Troubleshooting-Heating	3
		13
Semester III		
CET121	Building Materials and Construction	3
HVC224	HVAC System Operation/ Troubleshooting-Cooling	3
		6

32 TOTAL CREDIT HOURS

COLLEGE TECH PREP

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Mechanical Engineering Technology

The purpose of the mechanical engineering technology program is to provide education for the application of scientific and engineering principles in the support of mechanical engineering activities. This associate degree technician program is similar to a bachelor degree, but the associate program places more emphasis on practical application and experience.

As mechanical engineering technicians, students may work in many areas. In design and development, they would prepare sketches, drawings and layouts, and analyze proposed equipment components. Analysis of cost and practical value of design must be incorporated. Therefore, technicians must understand the mechanical principles involving design, tolerance, stress, strain, friction and vibration.

Technicians may become involved in testing equipment and materials for recommending design changes, improving performance or eliminating production problems. Therefore, technicians must be able to conduct projects, record and represent data, analyze results and prepare formal reports.

The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ETD121	Engineering Technology Seminar	1
MET123	Material Science	2
DET121	Engineering Drawing	3
ENG124	College Composition^	3
MTH125	College Algebra	4
MTH128	Trigonometry	1
ECA122	Computer Applications for Technical Professionals	3
		17
Semester II		
MET124	Statics & Strength of Materials	4
MET225/ AIT122	Manufacturing Processes or Machine Tools	3
MTH126	Pre-Calculus	4
DET125	Basic AutoCAD or Pro Engineer (DET131)	3
PHY121	Physics I	4
		18
Semester III		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
MET228	Machine Design	4
MET221	Advanced Strength of Materials	2
MET222	Fluid Power	4
MTH221/ MTH223	Concepts of Calculus or Analytical Geometry-Cal I	3/4
		16/17
Semester IV		
MET223	Dynamics	2
EST130	Electrical Circuits and Devices	4
MET227	Thermodynamics and Heat Transfer	3
MET226	Technical Project - Mechanical and Design	2
ENG221	Technical Report Writing	3
	Arts/Humanities/Social Science Elective*	3
		17

68/69 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PHL122, SOC121, SOC225

COLLEGE TECH PREP

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Mechanical Engineering Technology

Fuel Cell Technology Option

The mechanical engineering technology fuel cell option incorporates mechanical, electrical and chemical technologies to provide education for the application of scientific and engineering principles focused on sustainable alternative energy sources with emphasis on fuel cell technology and the systems required to support a fuel cell power system.

In the classroom, laboratory, and field, students will be introduced to the fundamentals of sustainable alternative energy sources, fuel cell technology, and the balance of plant systems to operate sustainable alternative energy systems. The program emphasizes the establishment of basic engineering knowledge and knowledge of sustainable alternative energy systems with emphasis on fuel cell systems. The program covers principles of engineering technology in a broad spectrum of disciplines from mechanical, electrical, and electrochemical engineering technology.

Graduates of this technical major may work as technicians in mechanical engineering technology and sustainable alternative energy laboratories and design offices, mechanical and energy estimating, public agencies and as technical sales staff.

The mechanical engineering technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ETD121	Engineering Technology Seminar	1
MET229	Introduction to Alternative Energy and Fuel Cells	3
DET125	Basic AutoCAD	3
CHM141	General Chemistry I	5
MTH125	College Algebra	4
MTH128	Trigonometry	1
ENG124	College Composition^	3
		20
Semester II		
MET124	Statics & Strength of Materials	4
MET230	Analysis and Applications of Types of Fuel Cells	3
MTH126	Pre-Calculus	4
ECA127	Programming Logic and Problem Solving	3
PHY121	Physics I	4
		18
Semester III		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
MET222	Fluid Power	4
MET231	Fuel Cell Systems	3
DET230	Advanced AutoCAD (Inventor)	3
MTH221	Concepts of Calculus	3
		16
Semester IV		
EST130	Electrical Circuits and Devices	4
MET227	Thermodynamics and Heat Transfer	3
MET232	Fuel Cell Project	3
ENG221	Technical Report Writing	3
MET225/ AIT122	Manufacturing Processes or Machine Tools	3
	Arts/Humanities/Social Science Elective*	3
		19

73 TOTAL CREDIT HOURS

^ Based upon SSC placement score
* ACC130, PHL122, SOC121, SOC225

COLLEGE TECH PREP
A college tech prep participant

One-Year Certificate
Fuel Cell Technology

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
MTH125	College Algebra	4
MET229	Alternative Energy Sources/Fuel Cells	3
		7
Semester I		
MET230	Analysis/Applications of Fuel Cells	3
EST130	Electrical Circuits and Devices	4
DET125	Basic AutoCAD	3
MET225	Manufacturing Processes	3
		13
Semester II		
MET231	Fuel Cell Systems	3
MET232	Fuel Cell Project	3
EET227	PLCs and Industrial Controls I	3
EET128	National Electric Code & Electrical System Design	2
ECA127	Programming Logic and Problem Solving	3
		14

34 TOTAL CREDIT HOURS

COLLEGE TECH PREP
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The Health Sciences Division prepares students for careers in which all health personnel are working toward the common goal of providing the best possible service in patient care and health promotion. There is a large cluster of health care-related professions and personnel whose functions include assisting, facilitating or complementing the work of the physicians and other specialists in the health care system.

Individuals in many health care fields work without direct supervision, while others can only work in a supervised setting. As technology changes, the individual must be able to accept new innovations to ensure continued demand for their services.

Health care personnel are highly regulated. After showing their proficiency in the classroom as practitioners of their art, they take certifying exams and are licensed by state or federal agencies, and their titles are protected by certification. To receive accreditation or certification in a health profession, the faculty, college and curriculum must be reviewed and must meet the standards of professional health accreditation bodies. All of the degree-granting programs in the Health Sciences Division have received multiple-year accreditation or certification.

Health Sciences Division students spend time in the classroom and laboratory, learning the techniques and skills necessary for their career success. Having learned these skills, students work and learn in a clinical setting to gain practical experience under the supervision of a clinical instructor. Upon completion of their studies, students may sit for certifying exams to receive their titles.

Acceptance to Stark State College does not ensure acceptance into a particular health program. Students must apply to their program of choice. See Application Requirements for Health Sciences Division.

Health Sciences Division

Pre-Application Requirements for Health Sciences Division

Acceptance to programs in the health sciences division requires an application separate from the application to Stark State College. The following information describes:

- pre-application requirements
- process for student acceptance into Health Sciences Programs
- options for students while they are in the admission pool for a to health sciences program

Admission to the Health Sciences Division involves expenses beyond tuition and books. Students are responsible for expenses incurred for program and health requirements. These expenses may range from approximately $100 to over $900. The Office of Admissions/ Student Services can provide more specific information. Expenses for dental hygiene exceed this range due to the clinical component of the program.

Practice in various health professions requires specific physical skills and abilities. Questions about the competencies required of health sciences applicants should be discussed with an admissions counselor.

According to various sections of the Ohio Law and Regulations for *Certification and Licensure Boards*, persons convicted of a felony or misdemeanor may not be able to take the licensure or certification examinations; may be refused acceptance of placement by the clinical/practicum sites; or may have restrictions placed on their ability to practice. For more information, contact the dean of student services and the applicable licensure/certification board.

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 veterans' status. The College's equal opportunity guidelines apply to admission to all health sciences programs. The College strives to assure a diverse representation of students within the health technology programs. Members of minority groups are encouraged to apply.

Specific information about application requirements for Health Sciences Division can be obtained from the **Office of Admissions/ Student Services** at 330-966-5450 or 1-800-797-8275.

The College reserves the right to change this process at any time. This does not constitute part of a contract between the applicant and the College.

Determination of Grade Point Average (GPA) to Meet Pre-Application Requirements

- Grade point averages (GPAs) listed in the pre-application requirements are for high school work completed within the last five years, or for college work.
- To apply for the following programs, 12 semester college credit hours are needed:
  - Dental Hygiene
  - Nursing
  - Occupational Therapy Assistant (effective June 5, 2006)
  - Physical Therapist Assistant Technology
  - Respiratory Care Technology (effective June 5, 2006)

Credit hour requirements are not specified for programs not listed above.

- GPAs from two or more colleges will not be combined or averaged.
- The most recent transcript with 12 or more successfully completed credits will be used.
- The SSC transcript will take precedence once 12 or more credit hours have been completed at SSC.

In addition, program-specific pre-application requirements apply. See the charts and narratives that follow.

Program-Specific Pre-Application Requirements for Associate Degrees

The most recent course grade achieved in each area will be considered.
High School eligibility requirements must be met within the last five (5) years.

	Required Proficiency Score on Admissions Tests OR AT LEAST	One Year High School Biology or Equivalent ("C" or better) OR AT LEAST	One Year High School Chemistry or Equivalent ("C" or better) OR AT LEAST	Volunteer Hours, Pre-Application Examination (PAX), Tour, or Other
ASSOCIATE DEGREE IN:				
Associate Degree in Nursing Program Minimum GPA 3.0	Intro. to Algebra*** ("C" or better)	Intro. to A & P ("C" or better)	Intro. to Chemistry ("C" or better)	Attendance at Mandatory Meeting+, PAX Test, 60th Percentile or Greater
Respiratory Care Technology Minimum GPA 2.5	Intro. to Algebra*** ("C" or better)	Intro. to A & P ("C" or better)	Intro. to Chemistry ("C" or better)	Tour
Medical Laboratory Technology Minimum GPA 2.0	Intro. to Algebra*** ("C" or better)	Intro. to A & P ("C" or better)	Intro. to Chemistry ("C" or better)	—
Medical Assisting Program Minimum GPA 2.0	College Math ("B" or better)	—	—	—
Health Information Management Technology Minimum GPA 2.0	College Math ("B" or better)	Intro. to A & P ("C" or better)	—	Tour
Occupational Therapy Assistant Technology Minimum GPA 3.0	Intro. to Algebra*** ("C" or better)	Intro. to A & P ("C" or better)	—	—
Physical Therapist Assistant Technology Minimum GPA 3.0	Intro. to Algebra*** ("C" or better)	Intro. to A & P ("C" or better)	—	50 Volunteer Hours**
Dental Hygiene Program Overall College GPA at least 2.0; with a minimum GPA of 2.75 in 4 courses (14 semester hours) listed at right. Refer to program information packet for details	Completion of the following four (4) classes with a grade of at least a "C" * or better in each course, AND.....GPA total from these four (4) courses (14 semester hours) must be at least 2.75. Applicant must also meet "Eligibility (Pre-application) Course Limitations/Rules" as stated in Dental Hygiene Program Prospective Applicant Document available in the Admissions Office. ENG124 - College Composition (3 credits PSY121 - General Psychology (3 credits) BIO121 - Anatomy & Physiology I (4 credits) CHM121 - General Chemistry (4 credits)			PAX Test 60th Percentile or Greater AND 20 Hours of Dentistry Observation/ Employment Experience

+ This requirement is in effect for all applications submitted as of January 1, 2010.

* Grade of "C-" is NOT ACCEPTABLE.

** See the Volunteer Hours form for a full description and instructions.

*** Elements of Algebra may be substituted for Intro to Algebra.

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Program-Specific Pre-Application Requirements for Certificates

The most recent course grade achieved in each area will be considered.
High School eligibility requirements must be met within the last five (5) years.

	Required Proficiency Score on Admissions Tests OR AT LEAST	One Year High School Biology or Equivalent ("C" or better) OR AT LEAST	One Year High School Chemistry or Equivalent ("C" or better) OR AT LEAST	Volunteer Hours, PAX Exam, Tour, or Other
CERTIFICATE PROGRAMS:				
Massage Therapy Minimum GPA 2.0	College Math ("B" or better)	Intro. to A & P ("C" or better)	—	—
Medical Coding Certificate Program Minimum GPA 2.0	—	Intro. to A & P ("C" or better)	—	—
Medical Instrument Sterilization Technology Minimum GPA 2.0	College Math ("B" or better)	—	—	—
Medical Transcription Minimum GPA 2.0	—	Intro. to A & P ("C" or better)	—	—
Expanded Functions Dental Auxiliary Program Minimum GPA 2.0	College Math ("B" or better)	—	—	Current CDA Certificate (Ohio or National), RDH License or min. 1 year Dental Hygiene coursework completed.
EMT-paramedic Minimum GPA 2.0 preferred	—	Intro. to A & P ("B" or better)	—	Current Ohio EMT-Basic certification Current AHA BLS certification

* Grade of "C-" is NOT ACCEPTABLE.

In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately.

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Program-Specific Pre-Application Requirements for Registered Nurses Completion for Paramedic Option

- Complete the College admission process and take any developmental courses recommended which may include Introduction to Algebra or Elements of Algebra.
- Develop and maintain current certification as a paramedic in the State of Ohio. For out of state applicants or anyone trained in the military as a paramedic, the applicant must hold a current paramedic national registry certification.
- Minimum "C" in high school chemistry within the last 5 years or equivalency.
- Have a cumulative GPA of 2.5 on a 4.0 scale in twelve hours or more of college work.
- Score at the 60th percentile or higher on the National League for Nursing Pre-Admission Examination for Registered Nurses (PAX-RN test).
- Complete the following courses prior to admission to the Associate Degree of Nursing (ADN) program with a grade of "C" or better: Anatomy & Physiology I and II, General, Organic & Biological Chemistry I and II, General Psychology, and College Composition (22 credit hours).
- Effective as of January 1, 2007, if a pre-nursing student does not complete the following courses, with a grade of "C" or better by the third attempt within a seven year span, including withdrawals, the student will not be permitted to apply to the nursing program:

Prerequisite Courses:
MTH101: Introduction to Algebra, Elements of Algebra or placement test
BIO101: Introduction to Anatomy & Physiology
CHM101: Introduction to Chemistry

Program-Specific Pre-Application Requirements for Registered Nurse (RN) Completion for Licensed Practical Nurse (LPN) Option

In order to place an application for the RN Completion for LPNs track each LPN must attend a mandatory meeting for review of the admission requirements and the application process. The student must attend an annual meeting if not accepted.

- Complete the College admissions process and take any developmental courses recommended which may include Intro to Algebra or Elements of Algebra.
- Submit a health program application to Academic Records/ Registrar's Office.
- Provide documentation of current active Ohio LPN license.
- Submit an original copy of high school transcript and/or GED scores and transcript from practical nurse program.
- Minimum GPA 2.5 in LPN program or 12 more recent hours of college credit.
- Minimum "C" in high school chemistry within last five years or show equivalency.
- Minimum "C" in BIO121 Anatomy and Physiology I, BIO122 Anatomy and Physiology II, CHM121 General, Organic, and Biological Chemistry Part I, CHM122 General, Organic, and Biological Chemistry Part II, ENG124 College Composition, PSY121 General Psychology prior to admissions.
- Complete the required nursing validation test (ACE) with the required minimum score of 70 within three years prior to enrolling in the first Stark State nursing course.
- Effective as of January 1, 2010, a Licensed Practical Nurse (LPN) must complete any non-nursing courses in the nursing curriculum with a grade of "C" or better by the third attempt within the last seven years, including withdrawals, or the student will not be permitted to apply to the nursing program. This requirement also remains in effect once the student receives their letter of acceptance to the program
- Once the student begins the nursing sequence, policies related to progression, retention, and dismissal take precedence in regard to repeating courses in the nursing curriculum.

Program-Specific Pre-Application Requirements for Dietary Manager

Refer to College Web site at www.starkstate.edu.

Program-Specific Pre-Application Requirements for Dental Assisting

Refer to College Web site at www.starkstate.edu.

Process for Student Acceptance into Health Sciences Programs

Students are required to meet the pre-application requirements for the health program of interest prior to submitting their rolling admissions application to the Academic Records/Registrar's Office. The application will be reviewed in the Academic Records/ Registrar's Office and by the appropriate department chair or program coordinator. If the review shows the application is complete, a letter and conditional acceptance contract will be sent to the student. This notifies the student of his/her placement in the program. If the student agrees to the conditional acceptance contract and returns it to the department chair or coordinator, the student's name will be placed on the acceptance list. Students must reapply if they fail to accept the conditional acceptance contract or do not reply.

If the application is determined to be incomplete, a letter will be sent from Academic Records/Registrar's Office explaining what requirements are missing. The student must reapply.

Options for students while they are on the acceptance list to a Health Sciences program

- In order to apply to another health program, first complete a letter of intent in Health Sciences office. The letter of intent states which of the two programs the student intends to complete first and is an agreement with the student that the student will not be offered a seat in the second program until the first program has been completed.
  - Certificate programs with letter of intent include:
  - Massage Therapy, Medical Instrument Sterilization, Medical Transcription, EMT Basic, EMT Paramedic, Expanded Functions Dental Auxiliary (EFDA), Dietary Manager, and Dental Assisting.
- Apply to register for Hospital Phlebotomy.
- Register for non-tech courses in the curriculum.
- Register for certificate programs without a letter of intent. Those include gerontology career enhancement certificate and American sign language certificate.
- Complete coursework towards associate of arts or associate of science.
- Complete transferrable coursework that applies toward a bachelor's degree.

Note: Students on a program acceptance list do not have to register for classes to remain on that list.

Special Note: All health sciences students in all health sciences programs should successfully complete the course Student Success Seminar (HTH101) during the first semester at Stark State College.

The College reserves the right to change this process at any time. This does not constitute part of a contract between the applicant and the College.

Dental Assisting

The dental assisting program prepares students for professional careers as basic qualified dental personnel or dental assistants, who can work in a variety of roles in a dental setting. Graduates work in positions as clinical assistants, infection control managers, practice managers, dental hygiene assistants and/or receptionists in dental offices, dental clinics and public health facilities.

Students prepare for entry into the dental profession and train to provide basic, adjunctive and supportive dental services alongside licensed dental professionals. The curriculum includes instruction in the dental sciences, materials, radiography, office management, preventative dentistry and general chair side procedures.

With one semester of study and completion of the major courses, students can earn a career enhancement certificate and be able to sit for the Ohio Dental Assistants Certification examination, offered by the Commission on Dental Testing, Inc. Upon conclusion of the career enhancement certificate courses, students are also eligible to apply for the Ohio dental assistant's radiographer certificate. Students, who complete additional coursework through four additional semesters of study, may earn an associate of science degree with a major in dental assisting.

Students who have earned a dental assisting certificate at a Tech Prep or Career/Technical Center Program and successfully completed state or national CDA examinations will be eligible to articulate their dental assisting courses toward the associate degree.

Major courses are offered during the day, evening and weekend – fall, spring and summer semesters. This variation makes completion of the dental assisting certificate and/or degree option simple and flexible.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
DAS121	Dental Assisting Techniques I	3
DAS122	Dental Assisting Radiography	2
MTH123	Intermediate Algebra	3
ENG124	College Composition^	3
DHY128	Intro to Dental Terminology & Basic Anatomy	2
	Student Success	1
		14
Semester II		
CHM101	Intro to Chemistry	4
BCA120	Business Computer Applications	4
SOC121	Sociology	3
DAS123	Dental Assisting Techniques II	3
DAS124	Dental Assisting Materials	2
		16
Semester III		
BIO101	Introduction to Anatomy & Physiology	3
PSY121	General Psychology	3
DAS125	Dental Assisting Specialty+	3
		9
Semester IV		
BIO121	Anatomy & Physiology I	4
COM121	Effective Speaking	3
SOC225	Cultural Diversity	3
ENG233	British Literature	3
		13
Semester V		
BUS121	Business Administration	4
PHL122	Ethics	3
BIO122	Anatomy & Physiology II	4
ENG230	Business Communication	3
		14

66 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Applicants may pick a dental assisting course option in which to gain specialized skills: Dental Office Management, Community Dentistry, or Clinical Dental Assisting.

In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately.

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Dental Hygiene

Dental hygienists are important members of the dental health care team who are licensed to work with dentists in the delivery of dental care. Hygienists combine knowledge and clinical skills to plan and provide dental hygiene care for patients. They use interpersonal skills to motivate and instruct individual patients and community groups on methods to prevent oral disease and to maintain oral health.

The profession welcomes men and women of all ages and offers career opportunities with excellent income and scheduling flexibility. While most dental hygienists work in general or specialty dental offices and clinics, alternative opportunities include public health departments, nursing homes, school systems, private industry, academic institutions and dental sales manufacturers.

Stark State's program consists of one semester of eligibility (pre-application) courses and four semesters plus one summer session of academic coursework and hands-on learning experiences in the classroom, laboratory, clinic and community. An important feature of the program is the on-campus Dental Hygiene Clinic which is open to the public. The hundreds of hours of supervised patient care experiences provide excellent skill and professional development training.

The goal of Stark State's program is to prepare students to demonstrate knowledge and competencies essential for the delivery of dental hygiene services and to enable them to assume the responsibilities for providing patient care. Graduates will understand the role of the dental hygienist and of other dental health team members; will be prepared to adapt to changing demands of the oral health care profession; and will seek opportunities for continuous professional development.

Graduates are eligible to take the Dental Hygiene National Board and Northeast Regional Board examinations, both of which are required for licensure in Ohio. Licensure is mandatory for employment in Ohio as a dental hygienist. Other states may have different licensing requirements.

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. The Commission on Dental Accreditation can be contacted at 312-440-4653; at 211 East Chicago Avenue, Chicago, IL 60611; *www.ada.org*.

SUGGESTED COURSE SEQUENCE		Credit Hours
Eligibility Courses		
CHM121	General Chemistry	4
BIO121	Anatomy and Physiology I	4
PSY121	General Psychology	3
ENG124	College Composition^	3
		14
Semester I		
DHY121	Head, Neck and Oral Anatomy	2
DHY122	Oral Histology and Embryology	1
DHY123	Dental Radiography	3
DHY131	Fundamentals of DH Practice	4
BIO221	Anatomy and Physiology II	4
		14
Semester II		
DHY124	Periodontics I	1
DHY125	Dental Materials	3
DHY126	Pathology	2
DHY132	Dental Hygiene Theory I	2
DHY133	Clinical Hygiene I	2
BIO221	Microbiology	4
		14
Semester III		
DHY127	Community Oral Health I	1
DHY134	Clinical Hygiene 1A	1
DHY221	Nutrition in Dentistry	1
		3
Semester IV		
SOC121	Sociology	3
DHY222	Dental Pharmacology	2
DHY223	Community Oral Health II	1
DHY225	Anesthesia and Pain Control	2
DHY231	Dental Hygiene Theory II	2
DHY232	Clinical Dental Hygiene II	4
		14
Semester V		
COM121	Effective Speaking	3
DHY224	Periodontics II	1
DHY233	Dental Hygiene Theory III	2
DHY234	Clinical Dental Hygiene III	3
	Social Science Elective*	3
		12

73 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* May select any PSY/SOC course of three credit hours or more, SWK127 or PHL122

COLLEGE TECH PREP

A college tech prep participant

The Stark State College Dental Hygiene Program has the following written articulation agreement for a bachelor in science degree completion program with: Ohio State University, Dental Hygiene Program, Section of Primary Care, College of Dentistry

According to various sections of the Ohio Law and Regulations for Certification and Licensure Boards, persons convicted of any felony or a misdemeanor may not be able to take the licensure or certification examinations; may be refused acceptance of placement by the clinical/practicum sites; or may have restrictions placed on their ability to practice. For more information, contact the dean of student services and the applicable licensure/certification board.

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Dietary Manager

Dietary managers, under the direction of a dietician, assist with nutrition therapy, dietetics, employee management and food safety. Students may earn an associate of science with a concentration in dietary manager or a one-year certificate in dietary manager. Students who complete the certificate are eligible to take the national certification exam offered by the Dietary Managers Association. Two credentials are earned upon passing the exam – Certified Dietary Manager (CDM) and Certified Food Protection Professional (CFPP). Students also earn the nationally recognized certificate of ServSafe Food Protection Certification, accredited by the American National Standards Institute – Conference for Food Protection (CFP).

CDMs and CFFPs are nationally recognized experts at managing food service operations. A CDM works with registered dietitians to provide quality nutritional care for clients in a variety of settings, including health-care facilities, nursing homes, rehab facilities, senior living communities, hospitals, correctional facilities and schools. They perform a variety of specialized tasks that may include: overseeing large-scale meal planning and preparation; budgeting for and purchasing food, equipment and supplies; enforcing sanitary and safety regulation, and preparing records and reports. They may provide supportive nutrition screening, documentation and care planning.

The associate of science in dietary manager can serve as the first step toward a bachelor's degree in dietetics or nutrition. Work experience and completion of a dietary manager certificate may be adequate to obtain many positions. A dietary manager credential, such as the certificate or associate degree, allows you to work in the field while pursuing an advanced degree.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
MTH101	Intro to Algebra+	3
ENG124	College Composition^	3
PSY121	General Psychology	3
DMA121	ServSafe	1
BIO125	Medical Terminology	3
SOC121	Sociology	3
		16
Semester II		
CHM101	Intro to Chemistry	4
ENG221	Technical Report Writing	3
BIO101	Intro to Anatomy & Physiology	3
DMA123	Nutrition/Medical Nutrition Therapy	3
DMA124	Nutrition/MNT Therapy Experience	3
		16
Semester III		
BIO123	Human Structure and Functions	5
COM121	Effective Speaking	3
DMA125	Management of Food Service Operations	3
DMA126	Management of Food Service Operations Experience	3
DMA122	ServSafe Experience	1
		15
Semester IV		
MGT224	Human Resource Management	3
DMA128	Human Resource Management for Dietary Managers Experience	3
PHIL122	Ethics	3
SOC225	Cultural Diversity	3
	Art & Humanities Elective*	3
		15

62 TOTAL CREDIT HOURS

^ Based on SSC placement score.
\+ Prerequisites for entry into the program – MTH100, ENG105
* Select ENG233 or HIS121
Note: The student has the option of taking classes during the summer. Field experience can be arranged with permission.
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.

DIETARY MANAGER ONE-YEAR CERTIFICATE

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
DMA 121	ServSafe	1
DMA 123	Nutrition/ Medical Nutrition Therapy	3
DMA 124	Nutrition /Medical Nutrition Therapy Experience	3
		7
Semester II		
DMA 125	Management of Foodservice Operations	3
DMA 126	Management of Foodservice Operations Experience	3
DMA 122	ServSafe Field Experience	1
		7
Semester III		
DMA 127	Human Resource Management for Dietary Managers	3
DMA 128	H. R. Management for Dietary Managers Experience	3
		14

20 TOTAL CREDIT HOURS

Note: Students may opt to take classes during the summer. Field experience can be arranged with permission.
Coursework is in compliance with the requirements of the Dietary Manager's Association and upon completion; students are eligible to take the national certification examination.

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Emergency Fire Services

The fire service is a noble and gratifying career. Firefighters are called upon to respond to many different situations. The main goals of a firefighter are to save life, protect property, to render humanitarian and special services, and to safeguard the environment. On any given day a firefighter may be called upon to respond to structural fires, car fires, animal rescues, brush fires, childbirth, hazardous materials incidents, water rescue, and more. Firefighters are confronted with challenging situations and must act quickly and decisively to mitigate these incidents to protect the public and themselves from harm. Firefighters are held in high regard by the public they serve. Today's firefighters are cross trained to also serve as paramedics. A firefighter/paramedic is ready to serve the public at all levels of emergency response.

Stark State College offers a two-year associate in applied science degree of emergency fire services technology. The level I and II firefighter certification course, EMT-Basic, and paramedic certification courses are included within this degree pathway, as well as courses designed to enhance the skills necessary to function as a firefighter/paramedic. The associate degree in emergency fire services will provide the initial knowledge and skills necessary for this profession.

According to various sections of the Ohio Law and Regulations for Certification and Licensure Boards, persons convicted of any misdemeanor or felony are required to report this information to the applicable licensure/certification board. For more information, contact the Emergency Services Coordinator.

SUGGESTED COURSE SEQUENCE NOTE: The following two courses must be taken prior to taking Paramedic I		Credit Hours
BIO101	Intro to A&P++	3
EMS121	EMT-Basic+&++	5
		8
Semester I		
EMS122	Paramedic I	10
ENG124	College Composition^	3
		13
Semester II		
MTH101	Intro to Algebra+++	4
PSY121	General Psychology	3
EMS221	Paramedic II	10
		17
Semester III		
EMS222	Paramedic III	4
Semester IV		
BCA120	Business Computer Applications	4
FST228	Firefighter I & II++++	10
		14
Semester V		
PHY101	Principles Physics	4
COM121	Effective Speaking	3
FST225	Haz Mat/WMD	3
FST226	Line Officer	3
		13

69 TOTAL CREDIT HOURS

^ Based on SSC placement score.

\+ EMS 121 is a prerequisite for EMS 122. 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 EMS 122

+++ MTH 103-Elements of Algebra may be substituted for MTH 101 Intro. To Algebra

++++ FST 228 – Contact Emergency Fire Services Coordinator for equipment requirements.

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Emergency Medical Services

Paramedics are highly-regarded health professionals, in part due to television and public events that have heightened awareness of this program.

The world of emergency medical services (EMS) is very dynamic, changing and evolving continually. Paramedics have many new challenges in the care of the ill and injured requiring a higher standard of learning, particularly with interests of national security. The field of paramedicine is evolving to new areas beyond emergency care in the streets.

Stark State College offers a two-year associate in applied science degree of emergency medical services technology. The EMT-basic and paramedic certification courses are included within this degree pathway, as well as courses designed to enhance management skills in the health care industry.

The EMS associate degree will provide the initial knowledge and skills necessary for this profession.

According to various sections of the Ohio Law and Regulations for Certification and Licensure Boards, persons convicted of any misdemeanor or felony are required to report this information to the applicable licensure/certification board. For more information, contact the Emergency Services Coordinator.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
EMS121	EMT-Basic+&++	5
BIO101	Intro to A&P++	3
		8
Semester I		
EMS122	Paramedic I	10
ENG124	College Composition^	3
		13
Semester II		
MTH101	Intro to Algebra+++	4
EMS221	Paramedic II	10
FST224	Legal Aspects	2
		16
Summer		
EMS222	Paramedic III	4
Semester III		
BCA120	Business Computer Applications	4
PSY121	Psychology	3
BIO125	Medical Terminology	3
HIT230	Healthcare Delivery	2
		12
Semester IV		
BUS121	Business Administration	4
OTA223	Life Span	5
FST225	Haz Mat/WMD	3
COM121	Effective Speaking^	3
		15

68 TOTAL CREDIT HOURS

^ Based on SSC placement score.

\+ EMS 121 is a prerequisite for EMS 122. 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 EMS 122

+++ MTH 103 may be substituted for MTH 101

EMT-PARAMEDIC ONE-YEAR CERTIFICATE

SUGGESTED COURSE SEQUENCE NOTE: The following two courses must be taken prior to Paramedic I		Credit Hours
EMS121	Emergency Medical Technician - Basic *	5
BIO101	Introduction to Anatomy and Physiology **	3
		8
Semester I		
EMS122	Paramedic I	10
ENG124	College Composition †	3
		13
Semester II		
EMS221	Paramedic II	10
		10
Semester III		
EMS222	Paramedic III	4
		4

35 TOTAL CREDIT HOURS

† Based on SSC placement score

* EMS121 is a pre-requisite for EMS122. A student can waive this course by showing proof of current State of Ohio EMT-B Certification.

** BIO101 must be completed with a grade of "B" or higher prior to the start of EMS122.

*** MTH103 Elements of Algebra may be substituted for MTH101 Intro. to Algebra.

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Emergency Medical Services

Certifications

The emergency medical technician (EMT) is an integral part of the health care system in today's society, providing emergency medical services (EMS) in a wide variety of situations in the pre-hospital setting.

EMT-basics, intermediates and paramedics are an extension of the emergency department and have received increasing attention and public awareness due to television and public events.

Stark State College is accredited to offer emergency medical services training ranging from First Responder to EMT-paramedic.

The EMT curricula follow the National Department of Transportation and Ohio Objectives. Successful completion of the certification courses will allow a student to take the National Registry Certification Exam, which is required by the state of Ohio for certification as an EMT at any level. The EMS Courses consist of classroom and lab sessions, including hands-on training in an ambulance on campus. Additionally, training in various hospitals and infield internship with fire departments and EMS squads is required.

Critical thinking and physical agility are among the skills required to function as an EMT. Emergency services are highly regarded and respected by our community and throughout the country. Graduates of Stark State College's EMS training will find their career to be very challenging and rewarding.

EMT-Basic Certification

ADMISSION REQUIREMENTS

- age 17 or in the last year of high school, OR 18 and out of high school
- proof of proficiency in reading English as demonstrated on SSC COMPASS test
- meet admission requirements as set forth in OAC 4765

EMT-Paramedic

ADMISSION REQUIREMENTS

- current EMT-basic certification in the State of Ohio
- current health care provider basic life support certification
- meet admission requirements as set forth in OAC 4765

Credit for Fire/EMS

General information guidelines for students with current Fire, EMT-B or EMT-P certification in the emergency fire/EMS two year associate degrees:

Students who are currently certified in any or all of the following can receive credit for these courses provided they meet all the requirements for graduation. Students must submit a written request to the department chair of emergency services prior to this process.

Courses: Firefighter Level I and II – 10 credits
EMT-B - 5 credits
EMT-P - 24 credits

Students must complete the following requirements at Stark State College:

- a minimum of 15 general credit hours
- a minimum of 5 technical credit hours
- submit current copies of certifications in the technical areas in which they are seeking credit

The specific areas of credit courses available in the technical portions of these two degrees are as follows:

Emergency Fire Services Degree:

Firefighter Level 1&2 (FST228), Line Officer Leadership (FST226), Hazardous Materials/WMD (FST225), EMT-B (EMS121), and Paramedic (EMS122), (EMS221), (EMS222)

Emergency Medical Services Degree:

EMT-B (EMS121), Paramedic (EMS122), (EMS221), (EMS222), (Legal Aspects (FST224), Hazardous Materials/WMD (FST225)

These credits will be posted when all the requirements of attaining the degree(s) have been met and verified by the department chair of emergency services. A list of alternative technical courses will be provided to any student required to enroll in a technical credit course in order to meet the five-hour minimum. Students may not post any failing grades in the major in which they are seeking an associate degree. Students must also maintain at least a 2.0 grade point average.

For additional information, contact the department chair of emergency services.

According to various sections of the Ohio Law and Regulations for Certification and Licensure Boards, persons convicted of any misdemeanor or felony are required to report this information to the applicable licensure/ certification board. For more information, contact the Emergency Services Coordinator.

Expanded Functions Dental Auxiliary

The expanded functions dental auxiliary (EFDA) technology program prepares one for a career as an advanced dental professional employed by private dental offices, dental clinics and public health facilities.

This program is available to students who are interested in learning expanded restorative procedures (how to fill teeth) *and* are currently Ohio or nationally certified dental assistants (CDA), registered dental hygienists (RDH), or dental hygiene students who have completed a minimum of one year in an ADA accredited degree program.

After two semesters of study and completion of the major courses, students will earn a certificate of competency and are eligible to sit for the Ohio EFDA examination offered by the Commission on Dental Testing. If successful on the state's written and practical exam, and upon registration with the Ohio State Dental Board, a successful applicant will be permitted to use the EFDA initials following their name.

An associate of technical studies in expanded functions dental auxiliary technology may be earned through the completion of additional coursework during three additional semesters of study.

Major courses (DHY226, DHY227) only offer a fall or spring start.

Enrollment in the EFDA program is limited. Admission is offered to eligible applicants on a space available basis. The EFDA program requires a separate application; admission to the College does not automatically mean acceptance into the EFDA program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BIO101	Intro to A&P	3
IDS115	Master Student	3
BCA120	Business Computer Applications	4
PSY121	General Psychology	3
DHY128	Intro to Dental Terminology & Basic Anatomy+	2
		15
Semester II		
BUS121	Business Administration	4
DHY226	Expanded Dental Assisting I	1
DHY227	Expanded Dental Assisting II	2
		7
Semester III		
BIO121	Anatomy & Physiology I	4
SOC121	Sociology	3
ENG124	College Composition^	3
DHY228	Directed Clinical Practice	4
		14
Semester IV		
CHM121	General Chemistry	4
COM121	Effective Speaking	3
BIO122	Anatomy & Physiology II	4
	Social Science Elective*	3
		14
Semester V		
PHL122	Ethics	3
COM122	Communication Theory	3
BIO124	Pathophysiology	3
BIO221	Principles of Microbiology	4
		13

63 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Required course in the Associate Degree in Technical Studies Expanded Functions Dental Auxiliary Major

* May select any PSY/SOC course of three credit hours or more, SWK127 or PHL122

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Health Information Management Technology

Graduates of health information management technology associate degree programs are known as health information technicians or registered health information technicians (RHIT).

Health information technicians:

- Manage medical records and health information systems
- Enhance the quality and uses of data within the health care industry
- Summarize data into useful information
- Comply with standards and regulations regarding health information
- Protect the privacy and security of patient health information
- Ensure health information is complete and available to legitimate users
- Code health information for reimbursement and research

The health information management technology program at Stark State College is a four-semester course of study leading to an associate of applied science (A.A.S.) degree. A new group of students begins each year in the fall semester.

Prospective students in the health information management technology program must meet specific criteria as outlined in program preapplication requirements. Fulfilling the criteria does not guarantee admission to the program. You must apply and be accepted into the program to take HIT courses.

Graduates of the health information management technology program will be eligible to take the national certification examination administered by the American Health Information Management Association. Individuals who pass the examination are entitled to use the designation of registered health information technician (RHIT).

Graduates of the program may pursue a bachelor's degree in health information management (HIM) via distance learning at the University of Toledo or pursue other HIM or related bachelor degree options.

The health information management technology program is accredited by the Commission on the Accreditation for Health Informatics and Information Management Education (CAHIIM).

According to various sections of the Ohio Law and Regulations for Certification and Licensure Boards, persons convicted of any felony or a misdemeanor may not be accepted into a health program at Stark State College; may not be able to take the licensure or certification examinations; may be refused acceptance of placement by the clinical/practicum sites; or may have restrictions placed on their ability to practice. For more information, contact the dean of student services and the applicable licensure/ certification board.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BCA120	Business Computer Applications	4
HIT121	Health Data Management and Delivery Systems	4
HIT123	Health Care Legal and Ethical Issues	2
BIO123	Principles Of Human Structure & Function	5
BIO125	Medical Terminology	3
		18
Semester II		
HIT122	Alternative Health Records and Registries	3
HIT124	Clinical Classification Systems I	4
BIO124	Pathophysiology	3
ENG124	College Composition^	3
BIO222	Pharmacology	3
		16
Summer		
	Communication Elective*	3
	Social Science Elective*	3
		6
Semester III		
HIT221	Clinical Classification Systems II	3
HIT222	Healthcare Statistics and Research	3
HIT224	Quality Management in Healthcare	2
HIT226	Professional Practice Experience I/ Seminar I	4
HIT232	Health Care Reimbursement Methodologies	2
		14
Semester IV		
ENG222	Medical Technical Report Writing+	3
HIT223	HIM Supervision: Concepts and Practices	3
HIT227	Professional Practice Experience II/ Seminar II	4
HIT229	Health Information Systems and Technology	3
HIT233	Clinical Classification Systems III	2
		15

69 TOTAL CREDIT HOURS

^ Based on SSC placement score.

* PSY121 or SOC 121 or another substitution with permission.

* COM121 or COM122 or another substitution with permission.

\+ English 222 must be taken concurrently with HIT 223.

++ Students must apply and be accepted into the program to take HIT courses. See the Health Sciences Rolling Admissions Packet for Pre-application requirements.

FRANKLIN UNIVERSITY Your potential. Our promise.

COLLEGE TECH PREP
A college tech prep participant

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Health Information Management Technology

One-Year Certificate
Medical Coding
Afternoon and Evening Track

Continually changing regulations for reimbursement of health care services issued by the government and other third-party payers have created a demand for qualified medical coders. A medical coder is a valuable member of the health information team who is responsible for translating diagnostic and procedural phrases into coded form. The coded information is then utilized for reimbursement purposes, analysis of patient outcomes and research.

Students will be instructed in ICD-9-CM, CPT-4, DRGs, APCs and other third-party reimbursement methodologies. A thorough understanding of coding guidelines, anatomy and physiology and disease processes are required in order to understand the disease and procedures to be coded. The medical coder must also have a thorough understanding of the content of the medical record, legal and ethical issues, and information systems.

Students who complete the medical coding certificate program are eligible to sit for coding certification examinations. The program recommends the CCA exam (Certified Coding Associate). See the American Health Information Management Association Web site ***www.ahima.org*** for additional information regarding coding certification exams.

The medical coding certificate program is an afternoon or evening track, 37-credit course of study that will prepare students for entry-level employment as medical coders. A new group of students begins each fall semester. The summer semester courses are very accelerated and the schedule is rigorous. Prospective students in the medical coding certificate program must meet criteria as outlined in program preapplication requirements. Fulfilling the criteria does not guarantee admission to the program. You must apply and be accepted into the program to take HIT courses.

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SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I++		
HIT121	Health Data Management and Delivery Systems	4
HIT123	Healthcare Legal and Ethical Issues	2
BIO123	Principles of Human Structure and Function	5
BIO125	Medical Terminology	3
		14
Semester II		
BCA120	Business Computer Applications	4
HIT124	Clinical Classification System I	4
BIO124	Pathophysiology	3
BIO222	Pharmacology	3
HIT232	Healthcare Reimbursement Methodologies	2
		16
Summer+++		
HIT221	Clinical Classification Systems II	3
HIT233	Clinical Classification Systems III	2
HIT231	Coding Professional Practice Experience/Seminar+	2
		7

37 TOTAL CREDIT HOURS

\+ The coding professional practice experience is daytime only.

++ Students must apply and be accepted into the program to take HIT courses. See the Health Sciences Rolling Admissions Packet for pre-application requirements.

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

COLLEGE TECH PREP

A college tech prep participant

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Health Information Management Technology

One-Year Certificate
Medical Transcription
Evening Track

Medical transcription is the art and science of producing a technically and grammatically correct typewritten report of the dictated word. Medical transcriptionists are medical language specialists who use headsets and transcribing/computer equipment to listen to recordings by physicians and other health care professionals. After reviewing and editing for grammar and clarity, the medical transcriptionist transcribes the dictated reports completely and accurately in either printed or electronic form and provides them to the dictator for review and signature or correction.

To understand and accurately transcribe dictated reports, the medical transcriptionist must demonstrate an extensive knowledge of medical terminology, anatomy and physiology, pharmacology, human diseases, surgical procedures, diagnostic studies and laboratory tests. A medical transcriptionist must also be able to translate medical jargon and abbreviations into their expanded forms.

Characteristics needed to become a medical transcriptionist include: excellent English language and proofreading skills, a strong interest in medical language, good hearing acuity and listening ability, good keyboarding/typing skills, ability to sit and work for long hours, a high level of concentration for extended period of time and the ability to work independently.

Because of the nature of the program and the availability of resources and facilities, admission to the program is limited to a new class of students starting each fall semester.

The three-semester course of study combines classroom learning and practical experience leading to entry-level employment. Prospective students in the medical transcription certificate program must meet criteria as outlined in program preapplication requirements. Fulfilling the criteria does not guarantee admission to the program. You must apply and be accepted into the program to take MTC courses.

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SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I++		
MTC121	Transcription/Terminology I	5
AOT121	Keyboarding/Formatting+	3
BIO123	Principles of Human Structure and Function	5
BIO125	Medical Terminology	3
		16
Semester II		
MTC122	Transcription/Terminology II	5
ENG124	College Composition^	3
BIO124	Pathophysiology	3
AOT129	Keyboarding/Skill building	1
		12
Summer		
MTC123	Transcription/Terminology III	3
BIO222	Pharmacology	3
		6

34 TOTAL CREDIT HOURS

^ Based on SSC placement score.

\+ Strongly recommend taking course prior to beginning the program.

++ Student must apply and be accepted into the program to take HIT courses. See the Health Sciences Rolling Admissions Packet for pre-application requirements.

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Massage Therapy Program

Associate of Technical Studies in Massage Therapy

Massage therapy is a study of the interrelationship of body, mind and spirit. Massage therapists apply specific techniques to the muscular structures and soft tissues of the human body-effectively relieving pain and restoring function. Professional massage therapists are an integral part of a health care team and recognized for their important role in helping to treat illness and chronic ailments.

Stark State College offers two approaches to training as a massage therapist. The certificate program enables students to complete the 42 credit hour coursework in four semesters. Upon successful completion, students are issued a certificate which allows them to sit for licensure with the State of Ohio Medical Board. The associate of technical studies degree in massage therapy can be completed in five semesters and includes business and other courses which prepare students for success in their profession.

Massage therapists in Ohio are required to be licensed. The State of Ohio Medical Board approves the curriculum at Stark State College and is the licensing agent for massage therapy. Therapists are licensed as limited medical practitioners and are able to work in private practice as well as hospitals, clinics, spas, doctor and chiropractor offices and in many other venues.

The massage therapy program at Stark State College challenges the student in proficiency of hands-on skills as well as extensive knowledge of anatomy, physiology and massage therapy theory. Self-care for the massage practitioner, client wellness education and community involvement through volunteerism is also an integral part of the curriculum.

Massage therapists benefit from knowing that they make a difference in the lives of others, enjoy a high level of autonomy in their employment and ample time with clients to convey a sense of caring which facilitates a healing environment.

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DEGREE PROGRAM BEGINNING IN FALL SEMESTER

SUGGESTED COURSE SEQUENCE		Credit Hours
Fall - Semester I		
MAS121	Massage Therapy I	6
BIO121	Anatomy & Physiology I	4
BUS121	Business Administration	4
ENG124	College Composition^	3
MAS123	Massage Therapy Anatomy & Physiology I	1
		18
Spring - Semester II		
MAS122	Massage Therapy II	2
BIO122	Anatomy & Physiology II	4
MAS124	Massage Therapy A&P II	2
PSY222	Psychological Aspects of Therapy	3
MAS224	Massage Therapy III	4
		15
Summer - Semester III		
BIO124	Pathophysiology	3
BIO125	Medical Terminology	3
MAS225	Massage Therapy IV	2
MAS228	Professional Practice and Evaluation	1
		9
Fall - Semester IV		
BUS123	Business Math	4
MAS223	Massage Therapy Review	3
MAS226	Massage Therapy V+	3
MAS227	Massage Therapy Procedures	2
MAS229	Clinic Operations	2
		14
Spring - Semester V		
BCA120	Business Computer Applications	4
MKT121	Principles of Marketing	3
ACC121	Principles of Accounting	4
MGT121	Principles of Management	3
		14

70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ MAS230 by permission

COLLEGE TECH PREP

A college tech prep participant

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Massage Therapy Program

DEGREE PROGRAM BEGINNING IN SPRING SEMESTER

SUGGESTED COURSE SEQUENCE		Credit Hours
Spring - Semester I		
MAS121	Massage Therapy I	6
BIO121	Anatomy & Physiology I	4
BUS121	Business Administration	4
BUS123	Business Math	4
MAS123	Massage Therapy A&P I	1
		19
Summer - Semester II		
BCA120	Business Computer Applications	4
MAS122	Massage Therapy II	2
ENG124	College Composition^	3
BIO125	Medical Terminology	3
		12
Fall - Semester III		
BIO122	A&P II	4
MAS124	Massage Therapy A&P II	2
PSY222	Psychological Aspects of Therapy	3
MAS224	Massage Therapy III	4
MAS225	Massage Therapy IV	2
MAS227	Massage Therapy Procedures	2
MAS228	Professional Practice & Evaluation	1
		18
Spring - Semester IV		
BIO124	Pathophysiology	3
MAS223	Massage Therapy Review	3
MAS226	Massage Therapy V+	3
MAS229	Clinic Operations	2
		11
Summer - Semester V		
ACC121	Principles of Accounting	4
MGT121	Principles of Management	3
MKT121	Principles of Marketing	3
		10

70 TOTAL CREDIT HOURS

^ Based on SSC placement score.

\+ MAS230 by permission

COLLEGE TECH PREP

A college tech prep participant

One-Year Certificate
Massage Therapy

PROGRAM BEGINNING IN FALL SEMESTER

SUGGESTED COURSE SEQUENCE		Credit Hours
Fall - Semester I		
MAS121	Massage Therapy I	6
BIO121	Anatomy & Physiology	4
MAS123	Massage Therapy Anatomy & Physiology I	1
PSY222	Psychological Aspects of Therapy	3
		14
Spring - Semester II		
MAS122	Massage Therapy II	2
BIO122	Anatomy & Physiology II	4
MAS124	Massage Therapy A&P II	2
MAS224	Massage Therapy III	4
		12
Summer - Semester III		
BIO124	Pathophysiology	3
MAS225	Massage Therapy IV	2
MAS228	Professional Practice & Evaluation	1
		6
Fall - Semester IV		
MAS121	Massage Therapy I	6
BIO121	Anatomy and Physiology	4
MAS123	Massage Therapy Anatomy and Physiology I	1
PSY222	Psychological Aspects of Therapy	3
		14

42 TOTAL CREDIT HOURS

\+ MAS230 by permission

PROGRAM BEGINNING IN SPRING SEMESTER

SUGGESTED COURSE SEQUENCE		Credit Hours
Spring - Semester I		
MAS121	Massage Therapy I	6
BIO121	Anatomy and Physiology	4
MAS123	Massage Therapy Anatomy and Physiology I	1
PSY222	Psychological Aspects of Therapy	3
		14
Summer - Semester II		
MAS122	Massage Therapy II	2
		2
Fall - Semester III		
BIO122	Anatomy and Physiology II	4
MAS124	Massage Therapy A&P II	2
MAS224	Massage Therapy III	4
MAS225	Massage Therapy IV	2
MAS228	Professional Practice and Evaluation	1
		13
Spring - Semester IV		
BIO124	Pathophysiology	3
MAS223	Massage Therapy Review	3
MAS226	Massage Therapy V+	3
MAS227	Massage Therapy Procedures	2
MAS229	Clinic Operations	2
		13

42 TOTAL CREDIT HOURS

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Medical Assisting Program

Medical assistants are medical office experts who work in doctors' offices, outpatient and ambulatory care clinics, and other health-related businesses. The medical assistant frequently functions as the physician's right hand, assisting with the instruction and treatment of patients and performing the administrative tasks needed to keep an office running smoothly. The medical assistant is skilled in human relations techniques and is required to deal effectively with patients and other allied health personnel in the health care delivery system.

Clinical skills include assisting with the physical exam, measuring vital signs, height, weight, visual acuity and hearing levels. The medical assistant gives injections, applies bandages and dressings, and instructs patients in diet and at-home treatments. Medical assistants perform laboratory screening tests and EKGs, clean and sterilize instruments and assist with minor office surgery and therapeutic treatments ordered by the physician.

Medical assistants must have administrative skills to keep an office running smoothly. Among these skills are: typing, word processing, insurance coding, computer office systems, accounting, office procedures, communication/telephone skills and data input.

The medical assisting program offers a five-semester "day track" program and a "evening track" program to accommodate students who work during the day. Students are encouraged to complete arts and sciences courses while waiting to become eligible for admission to the program.

Second-year students are offered electives in advanced phlebotomy and ophthalmology to assist them in becoming eligible to sit for two additional national certification exams: certified phlebotomist (CLPIb) and certified ophthalmic assistant (COA).

Immediately upon graduation, a medical assisting graduate is eligible to take the national certification exam given by the AAMA (American Association of Medical Assistants) to become a certified medical assistant (CMA).

The medical assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Medical Assisting Education Review Board (MAERB) that is through the American Association of Medical Assistants (AAMA).

The ophthalmology technical elective program at Stark State is accredited by the Committee on Accreditation for Ophthalmic Medical Personnel (CoA-OMP) who is sponsored by the Joint Commission on Allied Health Personnel in Ophthalmology, Inc® (JCAHPO® Association of Technical Personnel in Ophthalmology (ATPO), Consortium of Ophthalmic Training Programs (COTP).

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IMPORTANT NOTE:

Effective with the January 2001 *Certification Examination*, felons are not eligible to sit for the examination unless the Certifying Board (CB) grants a waiver based on one or more of the mitigating circumstances listed in the *Disciplinary Standards*.

Medical Assisting Program

Day Track

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BIO101	Introduction to Anatomy & Physiology	3
OAT107	Digital Technologies	1
OAT108	MS Outlook	1
MAT121	Medical Assisting I	4
BIO125	Medical Terminology	3
		12
Semester II		
MTH101	Intro to Algebra or Test Out	4
BCA120*	Business Computer Applications	4
PSY121	General Psychology	3
MAT122	Medical Assisting II	4
MAT124	Medical Office Procedures I	3
		18
Summer - Semester III		
COM121	Effective Speaking	3
PSY123	Human Growth and Development	3
ENG124	College Composition^	3
		9
Semester IV		
MAT221	Medical Lab. Procedures	3
MAT222	Insurance for Medical Assisting	4
MAT223	Office Procedures II	4
MAT224	Pharmacology/Administration of Medications	4
		15
Semester V		
MAT123	Medical Assisting III	2
MAT225	Emergency Medical Procedure	2
MAT226	Medical Office Management/Law	3
MAT227	Medical Assisting Externship	2
MAT233	Seminar	1
		10

64 TOTAL CREDIT HOURS

^ *Based on SSC placement score.*

A college tech prep participant

Evening Track

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BIO101	Introduction to Anatomy & Physiology	3
OAT107	Digital Technologies	1
OAT108	MS Outlook	1
MAT121	Medical Assisting I	4
BIO125	Medical Terminology	3
		12
Semester II		
MTH101	Intro to Algebra or Test Out	4
BCA120*	Business Computer Applications	4
MAT122	Medical Assisting II	4
MAT124	Medical Office Procedures I	3
		15
Summer - Semester III		
COM121	Effective Speaking	3
PSY123	Human Growth and Development	3
ENG124	College Composition^	3
		9
Semester IV		
PSY121	General Psychology	3
MAT221	Medical Lab. Procedures	3
MAT222	Insurance for Medical Assisting	4
MAT223	Office Procedures II	4
		14
Semester V		
MAT123	Medical Assisting III	2
MAT224	Pharmacology/Administration of Medications	4
MAT225	Emergency Medical Procedure	2
MAT226	Medical Office Management/Law	3
MAT227	Medical Assisting Externship	2
MAT233	Seminar	1
		14

64 TOTAL CREDIT HOURS

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Medical Instrument Sterilization

Medical instrument sterilization technology is responsible for the correct decontamination processing and sterilization of all items in the hospital and/or clinic that require sterilization. The students in this program work in the central service area and are trained in principles, methods and control of the sterilization processes, cleaning, processing, packaging, distributing, storing and inventory control of sterile goods, instruments, trays, and equipment in the hospital/clinical setting.

The medical instrument sterilization technology program prepares students for professional careers as technicians employed by hospitals and medical clinics to sterilize and clean medical instruments used in surgical procedures and treatment of patients.

Graduates will be eligible to sit for the examination required to become a Certified Sterile Processing and Distribution Technician (CSPDT) after successful completion of the certificate program. Students who complete additional coursework and two additional semesters of study earn an associate of technical studies degree with a major in medical instrumentation sterilization technology.

The program is offered through a collaborative effort between Stark State College and Mercy Medical Center. The medical instrument sterilization courses are taught at Mercy Medical Center.

Requirements for admission into the program:

- complete the College admissions process
- submit a health program application to Academic Records/Registrar's Office
- college and high school transcripts provided and evaluated
- minimum GPA 2.0 overall preferred
- successful completion of College Mathematics or proficiency

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SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BIO101	Into to A&P	3
MIS121	Medical Instrument Sterilization I/Seminar	4
BIO125	Medical Terminology	3
		10
Semester II		
MIS122	Medical Instrument Sterilization II/Seminar	6
BIO123	Principles of Human Structure and Function	5
MIS123	Introduction to Surgical Terminology/ Microbiology	3
ENG124	College Composition^	3
		17
Summer - Semester III		
MIS221	Medical Instrument Sterilization III/Seminar	6
		6
Semester IV		
BCA120	Business Computer Applications	4
PSY121	General Psychology	3
COM122	Communication Theory	3
BIO124	Pathophysiology	3
		13
Semester V		
SOC121	Sociology	3
COM121	Effective Speaking	3
BIO221	Principles of Microbiology	4
	Elective*	3
		13

59 TOTAL CREDIT HOURS

^ Based on SSC placement score.

* PSY222 suggested

One-Year Certificate
Medical Instrument Sterilization

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BIO101	Into to A&P	3
MIS121	Medical Instrument Sterilization I/Seminar	4
BIO125	Medical Terminology	3
		10
Semester II		
MIS122	Medical Instrument Sterilization II/Seminar	6
MIS123	Introduction to Surgical Terminology/ Microbiology	3
ENG124	College Composition^	3
		12
Summer - Semester III		
MIS221	Medical Instrument Sterilization III/Seminar	6
		6

28 TOTAL CREDIT HOURS

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Medical Laboratory Technology

Laboratory tests play an important part in the detection, diagnosis and treatment of many diseases. Medical laboratory technicians perform a wide variety of tests and laboratory procedures that require a high level of skill.

The medical laboratory technician analyzes the blood and other body fluids in the human body by using precision instruments such as microscopes and automated analyzers. Technicians assist in performing complicated chemical, microscopic and bacteriological tests including: blood cholesterol level; microscopic examination of the blood to detect the presence of diseases; and cultures of body fluid or tissue samples to determine the presence of bacteria, parasites or other microorganisms. Technicians may also type and crossmatch blood samples. Collection of blood samples by venipuncture and skin puncture is a required skill of medical technicians.

Technicians employed in small laboratories often perform a variety of tests, while those in large laboratories may specialize in areas such as microbiology, parasitology, clinical chemistry, blood banking and hematology. Medical laboratory technicians are valued members of the health team. Graduates of the program are eligible to take the national certification exams given by the ASCP and NCA.

Applicants should review the program essential functions to determine if they meet these requirements, available from the program director.

The medical laboratory technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), which is sponsored by the American Society of Clinical Pathology and the American Society (ASCLS) of Clinical Laboratory Science. NAACLS can be reached at 5600 North River Rd., Suite 720, Rosemont, IL 60018 • 773-714-8880 • *www.naacls.org*.

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SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
CHM121	General Organic, Biological Chemistry I	4
MLT121	Fundamentals of Lab Techniques	3
MLT122	Urinalysis & Body Fluids	2
MLT123	Hematology I	3
BIO123	Principles of Human Structure and Function+	5
		17
Semester II		
CHM122	General,Organic & Biological Chemistry II	4
MTH123	Intermediate Algebra*	3
MLT124	Hematology II	4
ENG124	College Composition^	3
MLT125	Immunohematology	4
MLT221	Clinical Immunology/Serology	3
		22
Summer - Semester III		
BIO221	Principles of Microbiology	4
	Elective***	2
		6
Semester IV		
	Social Science Elective**	3
MLT222	Clinical Chemistry	5
MLT223	Clinical Microbiology	7
		15
Semester V		
MLT224	Directed Practice & Seminar	10
		10

70 TOTAL CREDIT HOURS

^ Based on SSC placement score.

* May substitute MTH 125

** PSY121 or SOC121, or other substitution with permission

*** Elective per an advisor. Suggest two of the following one- credit hour courses: Microsoft Word, Excel, Powerpoint, Access, or HIT 230 -- a two-credit hour course.

\+ BIO 121 and 122 may be substituted

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Nursing

Associate Degree In Nursing (ADN) Program

Nursing is a rewarding profession that combines technology with caring to assist people in obtaining and maintaining optimal health.

The associate degree nurse (ADN) practices in a variety of settings: hospitals, long-term and extended-care facilities, clinics and other health care agencies. The ADN graduate functions in three primary roles: provider of client care, manager of client care and member within the nursing discipline.

Using the methodology of the nursing process, the associate degree nurse formulates clinical judgments, collaborates with clients and other health care professionals, and practices within legal, ethical and social obligations.

Stark State College's ADN program consists of four semesters and a summer of academic coursework and hands-on learning experiences in the classroom, learning laboratory and clinical settings. The program prepares the individual to qualify for the licensing examination for registered nurses.

Applicants must fulfill the following requirements to be eligible for admission to the ADN program:

- Be a high school graduate with a GPA of 3.0 or better on a 4.0 scale within the last five years; or have obtained a GED certificate within the last five years; or have a college GPA of 3.0 or better in 12 hours or more of course work. The SSC transcript will take precedence once 12 or more credit hours have been completed at SSC.
- Have completed one year of high school chemistry and biology with a grade of "C" or better within the past five years, or show equivalency. A high school course in Algebra is essential for those attempting to test out of Introduction to Algebra.
- Complete Stark State's pre-admission test and take any courses recommended as a result of that test.
- Score 60% or higher on the National League for Nursing pre-admission examination for registered nurses. See the Information Packet for Nursing regarding specific guidelines for achievement of grades in pre-nursing and non-nursing courses.

An evening/weekend program is currently being offered to students who meet the listed admission requirements as well as having completed the following courses:

- BIO121: Anatomy and Physiology I,
- BIO122: Anatomy and Physiology II,
- CHM121: General, Organic, and Biological Chemistry Part I, and
- CHM122: General, Organic, and Biological Chemistry Part II with a grade of "C" or better by June 1 of the admitting year. Meeting requirements for admission for the evening/weekend program does not guarantee admission to the evening/weekend nursing program. This program covers the same sequence in the same time frame as the weekday program.

A licensed practical nurse (LPN) admitted to Stark State College's ADN program with advanced standing admission (ASA) obtains 77 semester hours of credit at graduation.

LPNs must earn 22 hours of credit in specified courses before admission to the program. Upon satisfactory completion of the ACE test with a decision score of 70 in both sections of the test, and satisfactory completion of *NUR 201: Transition for the LPN* (a five-credit hour course), LPNs will receive 20 hours of credit for first-level nursing courses. In addition, LPNs must complete the one-calendar-year curriculum plan RN completion for LPN sequence.

According to Section 4723.28 of the *Ohio Revised Code,* nursing students are responsible for informing the department chair/director of nursing, early and during the program, of any misdemeanor or felony convictions so that students may be informed of the steps the Ohio Board of Nursing will take before considering their application to sit for the licensing examination.

According to *Ohio HB327*: anyone previously convicted of, pleaded guilty to, or had a judicial finding of guilt for an egregious felony will be precluded from initial licensure. Egregious felonies are: aggravated murder, murder, voluntary manslaughter, felonious assault, kidnapping, rape, sexual battery, gross sexual imposition, aggravated arson, aggravated robbery and aggravated burglary.

Stark State College's associate degree of nursing (ADN) program has full approval by the Ohio Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC). NLNAC can be reached at: 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326 • 1-800-669-1656.

Criminal Background checks will be required for all nursing students before beginning nursing courses and on an annual basis. Depending on the individual's criminal background, it may not be possible to provide required clinical placements.

Candidates who wish to sit for the NCLEX-RN (Registered Nurse Licensing Examination) will be required to submit their fingerprints to the Bureau of Criminal Identification and Investigation (BCII) and the Federal Bureau of Investigations (FBI).

For more details, contact the Ohio Board of Nursing Web site at www5.state.oh.us/nur

The Stark State College ADN program has the following written articulation agreements in place:

- Ashland University, Department of Nursing, Bachelor of Science in Nursing (BSN), RN-BSN completion onsite at SSC.
- Malone College, Department of Nursing, Bachelor of Science in Nursing (BSN) degree-completion track for RNs (Canton, OH)
- Wayne College Joint Vocational High School nurse program and the Wayne Adult School of Practical Nursing (Smithville, OH)
- Portage Lakes Career Center, W. Howard Nicol School of Practical Nursing (Green, OH)
- Practical Nurse Program of Canton City Schools (Canton, OH)
- Robert T. White practical nurse program (Alliance, OH)
- Walsh University, B.S.N. Degree for the Registered Nurse (BSN-RN) Program (Canton, OH)

Transfer guidelines are available from the Admissions Department .

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
NUR121	Fundamental Concepts of Nursing I	6
BIO121	Anatomy & Physiology I	4
PSY121	General Psychology	3
CHM121	General, Organic, & Biological Chem. I	4
		17
Semester II		
BIO122	Anatomy & Physiology II	4
CHM122	General, Organic, & Biological Chem. II	4
ENG 24	College Composition^	3
NUR221	Nursing Care of Persons with Alterations in Health I	6
		17
Summer		
NUR122	Nursing Care of the Child Bearing Family+	4
NUR123	Nursing Care of Children+	4
PSY123	Human Growth & Development	3
		11
Semester III		
SOC121	Sociology++	3
BIO221	Principles of Microbiology	4
NUR222	Nursing Care of Persons with Alterations in Health II	8
		15
Semester IV		
NUR223	Nursing Care of Persons with Alterations in Health III +++ & ++++	8
NUR224	Nursing Seminar	1
ENG231	College Composition II	3
		12

72 TOTAL CREDIT HOURS

^ Based on SSC placement score.

\+ NUR 122 and NUR 123-conducted in 5 week sessions

++ Effective for graduating Class of 2003

+++ Lab only conducted in 1st 8 weeks of course.

++++ 10 hour clinical for 1st 8 weeks; then 24 hours/week for preceptorship (last 7 weeks)

Note: This is a suggested course sequence; student may complete any non-nursing courses prior to placement in the curriculum plan.

COLLEGE TECH PREP
A college tech prep participant

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Nursing

Registered Nurse (RN) completion for LPN

Applicants to the registered nurse (RN) completion for licensed practical nurse (LPN) program must be graduates of an approved practical nurse program. See introductory charts for pre-application requirements.

Effective January 1, 2007, LPNs who place an application for Advanced Standing Admission will only be permitted to attempt the ACE test twice within five years. If they are not successful by the second attempt, they will not be permitted to repeat the ACE test and thus will not be eligible for Advanced Standing Admission (within the five year period). Those LPNs not eligible for Advanced Standing Admission may seek admission to the two-year program.

A licensed practical nurse must inform the department chair if he/she is currently participating in the Ohio Board of Nursing Alternative Program prior to submitting an application to the nursing program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
PSY123	Human Growth and Development	3
NUR201	Transition for the LPN+	5
		8
Fall		
SOC121	Sociology++	3
BIO221	Principles of Microbiology	4
NUR222	Nursing Care of Persons with Alterations in Health II	8
		15
Spring		
NUR223	Nursing Care of Persons with Alterations in Health III+++ & ++++	8
NUR224	Nursing Seminar	1
ENG231	College Composition II	3
		12

35 TOTAL CREDIT HOURS

\+ NUR 201 conducted in 8 week session

++ Effective for graduating Class of 2003

+++ Lab only conducted in 1st 8 weeks of course

++++ 10-hour clinical for 1st 8 weeks; then 24 hours/week for preceptor ship (last 7 weeks)

COLLEGE TECH PREP

A college tech prep participant

Registered Nurse (RN) completion for paramedics

The registered nurse (RN) completion for the paramedic degree offers paramedics an avenue to transition into nursing, capitalizing on the skills they have already obtained through emergency services training. This program offers paramedics the associate degree nursing education required for licensure, and a foundation to pursue further educational opportunities in nursing. This program is offered as a WEB Level II modality which is more accommodating for paramedic work schedules.

Applicants to the RN completion for paramedics program must be graduates of an accredited paramedic program. See introductory charts for pre-application requirements.

Effective as of January 1, 2007, pre-nursing students must complete any non-nursing courses in the nursing curriculum with a grade of "C" or better by the third attempt within the last seven years, including withdrawals, or they will not be permitted to apply to the nursing program. This requirement also remains in effect once the student receives their letter of acceptance to the program.

Provide documentation from the applicant's supervisor/employer/chief medical director/designated EMS coordinator of recent paramedic experience and/or hospital emergency department experience (within the past three years of application).

Fulfilling the above criteria does not guarantee acceptance into the nursing program.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
NUR225	Transition Course for the Paramedics	6
		6
Semester II		
NUR122	Nursing Care of the Childbearing Family	4
NUR123	Nursing Care of Children	4
PSY123	Human Growth and Development	3
		11
Semester III		
NUR222	Nursing Care of Persons with Alterations in Health II	8
SOC121	Sociology	3
BIO221	Principles of Microbiology	4
		15
Semester IV		
NUR223	Nursing Care of Persons with Alterations in Health III	8
NUR224	Nursing Seminar	1
ENG224	Composition and Literature	3
		12

44 TOTAL CREDIT HOURS

† Based on SSC placement score

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Occupational Therapy Assistant (OTA) Technology

The profession of occupational therapy provides services to individuals whose lives have been disrupted by accident or illness, birth defects, developmental problems, social or psychological problems. Occupational therapy personnel work in hospitals, schools, workshops, mental health centers, clinics and home-health agencies.

Occupational therapy assistants work under the supervision of the registered occupational therapist, helping patients achieve maximum independence in activities of daily living (ADL), instrumental activities of daily living, work, leisure and play, education and social participation.

Assistants help therapists evaluate patients to determine patient and family needs. Once treatment goals are set, the assistants may be responsible for implementing therapy by using selected activities. Assistants may also instruct patients in the use of specially-designed devices to allow people with physical disabilities to dress or feed themselves, take care of their homes or return to work.

Prospective students in the occupational therapy assistant technology program must have one year of high school biology or one semester of college anatomy and physiology and one semester of algebra.

The occupational therapy assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, P.O. Box 31220 Bethesda, MD 20824-1220, 301-652-2682. Graduates of the program will be eligible to sit for the *national certification examination* for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a certified occupational therapy assistant (COTA). In addition, most states require licensure in order to practice; however, states licenses are usually based on the results of the *NBCOT Certification Examination.*

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
PSY121	General Psychology	3
OTA121	Foundations of Occupational Therapy	3
OTA122	Therapeutic Media	3
ENG124	College Composition^	3
BIO125	Medical Terminology	3
		15
Semester II		
COM122	Interpersonal Communication	3
BIO123	Principles of Human Structure and Function*	5
OTA123	Psychosocial Aspects in OT	4
OTA124	Psychosocial Clinical Experience	3
PSY221	Abnormal Psychology	3
		18
Semester III		
OTA221	Developmental Aspects in OT	4
OTA222	Developmental Clinical Experience	3
OTA223	Life Span Development	5
PTA226	Functional Anatomy	4
		16
Semester IV		
SOC121	Sociology	3
BIO124	Pathophysiology	3
OTA224	OT in Physical Dysfunction	4
OTA225	Physical Dys. Clinical Experience	3
		13
Semester V		
OTA226	OTA Seminar	2
OTA227	Clinical Application I	3
OTA228	Clinical Application II	3
		8

70 TOTAL CREDIT HOURS

^ Based on SSC placement score.

* May substitute BIO 123 with BIO 121 or BIO 122

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Physical Therapist Assistant (PTA) Technology

Physical therapist assistants (PTAs) work under the supervision of physical therapists to rehabilitate ill or injured persons to the highest possible level of independent living. They also help to educate patients and other people about measures they can take to prevent disability from occurring or becoming worse.

PTAs help therapists test and examine patients. After the therapist sets goals and plans the treatment program for the patient, assistants may be assigned to perform selected treatments and therapeutic exercises.

Physical therapist assistants help patients learn correct walking procedures, perform activities of daily living and to use artificial limbs, braces and splints and stand properly. They also teach patients and family members about exercises or other activities to continue at home.

Assistants document patient reactions to treatment and make suggestions for modifying treatment.

Upon successful completion of all didactic, laboratory and clinical requirements of the program, graduates become eligible to apply to take licensure examinations. The Ohio Occupational Therapy, Physical Therapy, Athletic Trainers Board must approve all applicants prior to obtaining licensure in the State of Ohio. Graduates must pass the Ohio Laws and Rules Examination and the National Physical Therapy Examination to be eligible to be licensed in Ohio. Licensure is mandatory prior to being able to practice as a physical therapist assistant in Ohio.

Prospective students in the physical therapist assistant technology (PTAT) must meet specific eligibility criteria as outlined in program prerequisite requirements.

The physical therapist assistant technology program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

Any persons convicted of a felony or misdemeanor (regardless of the state or country in which the conviction occurred) or abuse alcohol or a controlled substance to the extent that it impairs professional competency may be denied acceptance into the physical therapist assistant technology program at Stark State College, may be refused acceptance of placement by clinical sites (which could prevent graduation from the program) or may be refused licensure as a physical therapist assistant. Such persons are advised to contact the program coordinator of the physical therapist assistant technology program and the executive director of the Ohio Occupational Therapy, Physical Therapy, and Athletic Trainers Board.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
PHY101	Principles of Physics	4
PTA121	Fundamentals of Physical Therapy	4
PTA122	Musculoskeletal Anatomy	4
BIO123	Principles of Human Structure and Function+	5
		17
Semester II		
COM122	Interpersonal Communication++	3
PTA123	Kinesiology	4
BIO124	Pathophysiology	3
BIO125	Medical Terminology	3
PTA221	PTA procedures I	5
		18
Semester III (Summer)		
PSY121	General Psychology	3
ENG124	College Composition^	3
PTA124	Measurement Procedures for the PTA	2
PTA125	Professional Clinical Practice for the PTA	1
		9
Semester IV		
PSY222	Psychological Aspects of Therapy	3
PTA222	PTA Procedures II	5
OTA223	Life Span Development	5
PTA229	Directed Practice I	3
PTA228	Seminar I	2
		18
Semester V		
PTA223	PTA Procedures III	2
PTA227	Directed Practice III	3
PTA230	Seminar II	1
PTA231	Directed Practice II	2
		8

70 TOTAL CREDIT HOURS

^ Based on SSC placement score.

\+ May Substitute BIO 121and BIO 122

++ May Substitute COM 121

This is a suggested course sequence. Only those marked PTA must be taken in this order. Course prerequisites stated in the catalog must be met.

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Respiratory Care Technology

Respiratory care is a health care specialty involved in the assessment, treatment, management, control, diagnostic evaluation and care of patients with deficiencies and abnormalities of the cardiopulmonary system.

Working under the direction of a physician, respiratory care practitioners perform specific therapeutic procedures in the newborn nursery, surgical and medical clinical areas, emergency rooms, outpatient departments and intensive-care units of hospitals. These procedures include the administration of medical gases, administration of breathing treatments and other bronchial-hygiene techniques. Respiratory therapy provides treatment for patients with acute illnesses who may require use of life-support equipment as well as the testing of patients using various diagnostic techniques.

Prospective students in the respiratory care technology program must meet specific eligibility criteria as outlined in the program's prerequisite requirements.

The respiratory care technology program provides opportunities for students to acquire the necessary skills by combining classroom learning with hospital experience. Because of the nature of the program and the availability of resources and facilities, admission to the program is limited.

Graduates of the respiratory care technology program will be eligible to apply for the examinations for becoming a registered respiratory therapist (RRT) and licensed respiratory care practitioner. Licensure is required to practice as a respiratory care practitioner in the state of Ohio.

The respiratory care technology program is accredited by the Committee on Accreditation for Respiratory Care (CoARC).

According to various sections of the Ohio Revised Code with respect to Chapter 4761 Respiratory Care Regulations any persons with a plea of guilty to a judicial finding of guilt of, or a judicial finding of eligibility for intervention in lieu of conviction for an offense involving moral turpitude or of a felony or using dangerous drugs, as defined in section 4729.01 of the Revised Code, or use of alcohol to the extent that it impairs practice at an acceptable level of competence may not be accepted into the respiratory care technology (RCT) program at Stark State College; may not be able to take the licensure or certification examinations; may be refused acceptance of placement by the clinical sites; or may not be able to get license to practice respiratory care and be restricted in their ability to practice respiratory care. Such persons are advised to contact the director of the RCT program, and the executive director of the Ohio Respiratory Care Board.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
RCT121	Introduction to Respiratory Care	3
RCT122	Medical Gas Administration	3
MTH123	Intermediate Algebra	3
BIO123	Human Structure & Function	5
BIO125	Medical Terminology	3
		17
Semester II		
CHM121	General Chemistry	4
RCT123	Airway Management Procedures	3
ENG124	College Composition^	3
RCT124	Pharmacology for R.T.	2
RCT125	Clinical Practice Basic Procedures/Seminar	3
		15
Summer - Semester III		
RCT126	Introduction to Critical Care	3
RCT127	Cardio Pulmonary A&P	3
RCT128	Clinical Practice Airway Management/ Seminar	2
		8
Semester IV		
	Social Science Elective*	3
BIO221	Principles of Microbiology	4
RCT221	Advanced Respiratory Care Procedures	3
RCT222	Respiratory Diseases	3
RCT224	Clinical Practice Critical Care/Seminar	3
		16
Semester V		
	Psychology Elective*	3
BCA120	Business Computer Applications	4
RCT223	Patient Assessment & Monitoring	3
RCT225	Clinical Practice Specialty Rotations/ Seminar	5
		15

71 TOTAL CREDIT HOURS

^ Based on SSC placement score.

* May Select from PSY121 or SOC121

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Nearly every facet of our lives today is affected by information technology and computers. The demand for computer skills is growing as organizations of all sizes need help to manage overwhelming amounts of information. Stark State College offers practical education to prepare graduates to fill this need.

All information technology programs cover the latest technologies and skills and were designed with the assistance of advisory committees composed of representatives of local employers.

The programs offered by the Information Technologies Division are designed to prepare students for positions in the growing information technology field, but also prepares them to make use of the power of computers in any field.

Graduates have many employment opportunities, including:

- Analyst
- Application Developer
- Audio/Video Technician
- Computer Operator
- Consultant
- Database Administrator
- Database Designer
- Education Specialist
- Graphic Artist
- Help Desk Analyst
- Informatics Technician
- Network Administrator
- Network Engineer
- Programmer
- Project Manager
- Security Specialist
- Software Engineer
- System Administrator
- Technical Support
- Technology Coordinator
- Training Specialist
- Video Game Designer
- Video Game Developer
- Web Designer
- Web Developer

The Division's curriculum is continuously updated to keep pace with the advances in the computer field and to provide timely education in a wide range of computer-related topics. In addition, students get hands-on experience in the classroom and in open labs with industry-approved computer hardware and software.

Information technology professors have practical experience in the field. Their education and industry experience allow them to offer real-life perspectives on the complex world of information technology. Stark State's information technology programs have been successful in providing students with the practical background and skills needed for employment in the computer field. The Information Technologies Division is helping to produce computer professionals with the skills employers want and need.

Information Technologies Division

Commercial Music Technology

Make some noise! Be part of Stark State's new program in music, where the technology of sound design has never sounded so good.

This program covers the skills and concepts necessary for a career in music. The associate degree program focuses on recording, musicianship and music arranging, with the goal of employment in corporate audio, audio reinforcement, trade show design, music composition or performance-based fields.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
IMT121	Interactive Media	3
IMT135	Music Theory and Composition I	3
ECA122	Computer Applications for Tech. Prof.	3
IMT129	Digital Audio Recording and Editing	3
MTH125	College Algebra	4
		16
Semester II		
IMT247	Music Theory and Composition II	3
PHY101	Principles of Physics	4
ENG124	College Composition^	3
IMT250	Music Technology	3
IMT134	Technical Musicianship	3
		1
Summer		
COM121	Effective Speaking	3
ENG224	Composition and Literature	3
		6
Semester III		
IMT230	Webcasting	3
	Arts/Humanities/Social Science*	3
IMT239	Music Synthesis	3
IMT223	Digital Video Recording and Editing	3
IMT260	Live Sound	3
		15
Semester IV		
IMT252	Advanced Editing & Audio for Video	3
IMT261	Advanced Music Technology	3
IMT246	Applied Music Technology	3
IMT259	Music Synthesis II	3
	Arts/Humanities/Social Science*	3
		15

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PSY121, PSY122, PSY123, PSY124, PSY221, PHL221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS222, PSC121

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Computer Engineering Technology

Computer engineering is a discipline that combines elements of both hardware and software. Computer engineers have additional training in the areas of software design and hardware/software integration. Computer engineers are involved on all aspects of computing, from the design of individual personal computers and supercomputers, to the integration of computer systems into other kinds of systems (i.e., a motor vehicle has many subsystems that are computer- and digitally-oriented). Common computer engineering tasks include writing embedded software for real-time microcontrollers, designing chips, working with analog sensors, designing mixed signal circuit boards, and designing operating systems. Computer engineers are also well-suited for research in the field of robotics, which relies on using computers together with other electrical systems.

This program is accepted by the University of Toledo for the first portion of a bachelor of science degree. Students interested in pursuing a 2+2 or 2+3 bachelor of science degree should consult their academic advisor prior to initial enrollment in the courses.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA253	Data Modeling and Database Design	3
ENG124	College Composition^	3
EST130	Electrical Circuits and Devices	4
		17
Semester II		
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication or Intergroup Communications	3
ECA128	Visual Basic Development	3
ECA223	Java Programming	3
EET123	Electronic Devices and Circuits	4
MTH125	College Algebra	4
		17
Summer		
ENG221	Technical Report Writing	3
	Arts/Humanities/Social Science Elective*	3
	Arts/Humanities/Social Science Elective*	3
		9
Semester III		
ECA227	Assembly Language Programming	3
	Technical Elective **	3
EET227	PLC's and Industrial Controls I	3
MTH126	Pre-Calculus	4
MTH128	Trigonometry	1
		14
Semester IV		
ECA	Technical Elective **	3
EET262	Pulse and Digital Integrated Circuits	4
MTH221	Concepts of Calculus	3
PHY121	Physics I	4
		14

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC123, SOC225, PSC121

** Choose 6 Hours of Electives - ECA260, ECA261, ECA292

\+ ECA292 Should be taken in the last or next-to-last semester of enrollment

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Computer Graphic Arts Technology

Become a designer of visions! As a part of Stark State's new program in computer graphic design, you'll explore and learn the technology of visual communication. Working across mediums, students will be encouraged to reach beyond and redefine the boundaries of traditional graphic design and explore the huge potential of the digital environment.

An associate degree in computer graphic arts will prepare students to succeed in the areas of print or Web media, design for the advertising and marketing sectors.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
IMT131	Color Theory & Design	3
IMT122	Graphic Arts Design	3
IMT137	Drawing Basics	3
ENG124	College Composition^	3
MTH125	College Algebra	4
		16
Semester II		
IMT132	Digital Photography	3
IMT253	Graphics for Illustration	3
ECA122	Computer Applications for Technical Professionals	3
ENG227	Writing for Media	3
	Physical Science Elective***	3/4
		15/16
Summer		
COM121/ COM123	Effective Speaking/Inter-group Communications	3
BUS121	Business Administration	3
		6
Semester III		
ECA228	Internet/Intranet Design & Development	3
MKT121	Principles of Marketing	3
IMT244	Digital Page Layout & Design	3
IMT245	Graphic Arts Design II	3
SOC121/ PSY121	Sociology or General Pyschology	3
		15
Semester IV		
ECA234	Advanced Cascading Style Sheets	3
MKT222	Advertising	3
IMT255	Advanced Illustration	3
IMT254	Portfolio Development	3
IMT125	Technical Elective**	3
		15

68/69 TOTAL CREDIT HOURS

^ Based upon SSC placement score

** IMT125, ECA155, IMT262

*** BIO101, CHM101, PHY101

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Computer Graphic Arts Technology

Digital Photography Option

A picture is worth a thousand words and with a degree in computer graphic arts digital photography option, you can take a thousand pictures. Take photos with the latest digital cameras, learn techniques of lighting, lens and location. Manipulate photos with all the latest software to create fantastic pictures. Snap the shutter and rack the focus of this degree to find a career as a newspaper photojournalist, studio manager, commercial photographer, editorial photographer, or photographic editor.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
IMT131	Color Theory and Design	3
MTH125	College Algebra	4
IMT122	Graphic Arts Design	3
ENG124	College Composition^	3
		16
Semester II		
IMT132	Digital Photography	3
ENG227	Writing for Media	3
IMT256	Digital Imaging	3
IMT253	Graphics for Illustration	3
	Physical Science Elective***	3/4
		15/16
Summer		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
BUS121	Business Administration	4
SOC121/ PSY121	Sociology or General Psychology	3
		10
Semester III		
MKT121	Principles of Marketing	3
IMT244	Digital Page Layout and Design	3
IMT263	Photographic Lighting	3
IMT245	Graphic Arts Design II	3
		12
Semester IV		
MKT222	Advertising	3
IMT264	Image Management	3
IMT262	Advanced Digital Photography	3
	Technical Elective**	3
IMT254	Portfolio Development	3
		15

68/69 TOTAL CREDIT HOURS

^ Based upon SSC placement score

** ECA155, IMT125

*** BIO101, CHM101 or PHY101

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Computer Network Administration and Security Technology

This program provides students with information on computer network administration, from basic PC hardware and software to the latest network operating systems. Students gain an understanding of Cisco, Microsoft and Unix-based operating systems and how they are used in today's marketplace. This is an ever-growing and rapidly changing field that requires graduates to work across many platforms and this option provides the appropriate training.

This program is accepted by The University of Akron for the first portion of a bachelor of science in computer networking. Students interested in pursuing a 2+2 or 2+3 bachelor of science should consult their academic advisor.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA145	PC Upgrading and Maintenance	3
ECA146	Introduction to Computer Networking	3
MTH125	College Algebra	4
		16
Semester II		
ECA131	MS Windows Vista & 2003 Server	3
ECA134	CCNA Phase I	2
ECA135	CCNA Phase II	2
ECA244	Microsoft Windows Server 2003 Network Infrastructure	3
ECA277	UNIX/LINUX Operating Environment	3
MTH126	Pre-Calculus	3
		16
Summer		
ENG124	College Composition^	3
	Arts/Humanities/Social Science elective*	3
		6
Semester III		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
ECA273	MS SQL Server Administration	3
ECA276	UNIX/LINUX Network Administration	3
	Physical Science Elective***	3/4
	Technical Elective**	3/4
		15/17
Semester IV		
ECA245	Designing Security for a Windows 2003 Network	3
ECA246	Implementing, Administering & Designing Directory Services	3
ECA278	Firewall and Network Security	3
ECA279	Web Server Administration	3
ENG224	Composition & Literature	3
		15

68/70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC236, PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121, ACC130

** ECA250, ECA274, ECA254, ECA284, ECA299

*** BIO101, CHM101, or PHY101

The University of Akron

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Computer Network Administration and Security Technology

CISCO Network Administration Option

CISCO Systems, Inc. is a leader in networking technologies for small businesses, corporations, and the Internet. Network technicians and administrators must have an understanding of their products and services in order to be a member of the information technology community.

Stark State College has been approved as a CISCO Networking Academy which allows students to access networking tools, software and other learning materials directly from CISCO. This program was developed to train network technicians to complete the CISCO Certified Network Associate (CCNA) examination, which has become a standard of excellence recognized worldwide.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA145	PC Upgrading and Maintenance	3
ECA146	Introduction to Computer Networking	3
MTH125	College Algebra	4
		16
Semester II		
ECA131	MS Windows Vista & 2003 Server	3
ECA134	CCNA Phase I	2
ECA135	CCNA Phase II	2
ECA277	UNIX/LINUX Operating Environment	3
ENG124	College Composition^	3
MTH126	Pre-Calculus	4
		17
Semester III		
ENG224	Composition & Literature	3
	Arts/Humanities/Social Science Elective*	3
		6
Semester III		
ECA250	CCNA Phase III and IV	4
ECA284	Voice over IP Fundamentals	3
ECA244	Microsoft Windows 2003 Network Infrastructure	3
	Physical science elective***	3/4
		13/14
Semester IV		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
ECA285	Cisco IP Telephony	4
ECA295	Securing Networks with Switches and Routers	3
ECA278	Firewall and Network Security	3
	Technical Elective**	3
		16

68/69 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, ACC236, BUS122, BUS221, BUS222, PSC121, PHL122,PSY121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC225

** ECA246, ECA254, ECA274, ECA276

*** BIO101, CHM101, PHY101

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Computer Network Administration and Security Technology

Unix/Linux Database Administration Option

This program provides the student with knowledge on computer network administration, with special emphasis on the Unix/Linux operating systems and also administration of the Oracle relational database management system. Medium to large-scale companies typically have heterogeneous network environments. These companies will typically have many Windows desktop client machines, but store their critical data on one or more large Unix database servers. This course will provide the user with the standard knowledge of Microsoft Windows clients and server, administration of Unix/Linux servers, standard SQL syntax, and administration of the Oracle RDBMS.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA145	PC Upgrading and Maintenance	3
ECA146	Introduction to Computer Networking	3
MTH125	College Algebra	4
		16
Semester II		
ECA142	Oracle Database: Introduction to SQL	3
ECA253	Database Design and Modeling	3
ECA277	UNIX/LINUX Operating Environment	3
ENG124	College Composition^	3
MTH126	Pre-Calculus	4
		16
Summer		
ENG224	Composition & Literature	3
PHY101	Physical Science***	3/4
		6/7
Semester III		
ECA131	MS Windows XP & 2003 Server	3
ECA286	UNIX/LINUX Forensics	3
ECA254	UNIX/LINUX Shell Scripting	3
ECA270	Oracle Database: Architecture & Administration	3
ECA274	UNIX/LINUX System Administration	3
ECA276	UNIX/LINUX Network Administration	3
		18
Semester IV		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
ECA271	Oracle Database 10g: Architecture & Administration II	3
ECA273	Microsoft SQL Server Administration	3
ECA279	Web Server Administration	3
	Arts/Humanities/Social Science Elective*	3
		15

71/72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, ACC236, BUS122, BUS221, BUS222, PHL122, PSY121, PSC121, PSY122, PSY123, PSY124, PSY221, SOC121, SOC122, SOC123, SOC225, PSC121

*** BIO101, CHM101, or PHY101

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Computer Programming and Database Technology

Computer programming and database is a discipline that combines database management systems with computer software to determine ways to organize and store data. Graduates learn to identify user requirements, set up computer databases, and test and coordinate modifications to the computer database systems. An organization's computer programmer and database scientist ensures the performance of the system, understands the platform on which the database runs, and adds new users to the system. Because they also design and implement system security, computer programmers and database scientists often plan and coordinate security measures. With the volume of sensitive data generated growing rapidly, data integrity, backup systems, and database security have become increasingly important aspects of the job of computer programmer and database scientist.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
ENG124	College Composition^	3
		16
Semester II		
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication or Intergroup Communication	3
	Database Elective ***	3
ECA128	Visual Basic Development	3
ECA225	Web Development with JavaScript and AJAX	3
ECA234	Advanced Cascading Style Sheets	3
		15
Summer		
ENG221	Technical Report Writing	3
MTH222	Statistics	3
	Arts/Humanities/Social Science Elective*	3
		9
Semester III		
ECA265	Generating Reports for Decision Making	3
	Database Elective ***	3
	Technical Elective**	3
ECA236	Web Development with PHP and MySQL	3
	Arts/Humanities/Social Science Elective*	3
		15
Semester IV		
BUS121	Business Administration	4
ECA252	Data Mining and Data Warehousing	3
	Database Elective ***	3
ECA268	Advanced Web Development with PHP and MySQL	3
	Technical Elective**	3
		16

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC123, SOC225, PSC121

** Choose 6 Hours of Electives - ECA226, ECA229, ECA292

*** Choose 1 Database Track - ECA139, ECA269, and ECA272 OR ECA142, ECA151, and ECA270

\+ ECA292 should be taken in the last or next-to-last semester of enrollment

COLLEGE TECH PREP

A college tech prep participant

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Computer Programming and Database Technology

One-Year Certificate
Database Technology

Almost every company has a need for data storage and manipulation for customer information, supplier information, or product manufacturing data. As a company grows and tries to serve more customers, and as the nature of manufacturing and delivery processes concurrently become more complex, the ability to store and access information quickly is crucial. Relational databases provide the best available solution to this data storage problem.

For large companies or large e-business operations, robust, scalable database systems provide the best solution where data and data accessibility are mission-critical elements. Companies often adopt corporate standards revolving around a particular vendor. Oracle or SQL Server are usually the databases of choice when data storage needs are large and when the ability to fine-tune performance is necessary.

Today, personalized service over the Internet is becoming the norm. With the growing need for business solutions such as Oracle and SQL Server, the demand for trained and knowledgeable database administrators is expected to grow over the next decade. From the perspective of the student, knowledge of Oracle or SQL Server is important. However, adding the Oracle or Microsoft logo to one's resume symbolizes a higher degree of knowledge and competence using these products.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
MTH222	Statistics	3
ECA253	Data Modeling and Database Design	3
		6
Semester I		
BUS121	Business Administration	4
ECA142	Oracle Database: Introduction to SQL	3
ECA139	Microsoft SQL Server Database	3
	Technical Elective	3
		13
Semester II		
ECA151	Oracle Database: PL/SQL Development	3
ECA270	Oracle Database: Architecture and Administration	3
ECA269	Advanced Microsoft SQL Server Database	3
ECA272	Microsoft SQL Server Database – Business Intelligence	3
		12

31 TOTAL CREDIT HOURS

COLLEGE TECH PREP

A college tech prep participant

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Computer Science and Engineering Technology

Enter a world where software development and engineering are put into action. Our computer science and engineering technology program allows the student to go behind the scenes, applying creativity to high-tech toys. The student will have the opportunity to operate, describe and design state-of-the-art hardware and software systems. Our faculty will make students aware of contemporary issues in this field in both social and global contexts. Graduates will have a deep understanding of the professional and ethical responsibilities involved in the profession, while effectively demonstrating outstanding verbal and written communication skills.

Graduates of this program will (1) develop software using the major software development language (2) design, describe, and use state-of-the-art hardware/ software systems; (3) maintain an awareness of contemporary issues in computer science and engineering in a global and societal context and an understanding of the professional and ethical responsibilities of their profession; (4) demonstrate effective oral and written communication.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
IDT121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
ENG124	College Composition	3
		16
Semester II		
ECA128	Visual Basic Development	3
ECA222	C++ Programming	3
ECA223	Java Programming	3
ECA229	Active Server Page Development	3
MTH125	College Algebra	4
		16
Summer		
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication or	3
	Intergroup Communications	
ENG221	Technical Report Writing	3
	Arts/Humanities/Social Science Electives *	3
		9
Semester III		
ECA230	Java Web Database Programming	3
ECA260	Software Engineering for Hand-Held Devices	3
ECA261	Software Engineering for Robotics	3
MTH126	Pre-Calculus	4
MTH128	Trigonometry	1
		14
Semester IV		
	Technical Elective **	3
ECA226	Windows Programming with C#	3
ECA239	Advanced Java Programming	3
	Technical Elective **	3
PHY121	Physics I	4
		16

71 TOTAL CREDIT HOURS

^ Based on SSC placement score

* PSY121, PSY122, PSY123, PSY124, PHL122, SOC121, SOC123, SOC225, PSC121

** Choose 6 Hours of Electives - ECA224, ECA227, ECA238, ECA292, ECA296

\+ ECA292 should be taken in the last or next to last semester of enrollment

COLLEGE TECH PREP

A college tech prep participant

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Computer Science and Engineering Technology

Video Game Design and Development Option

A video game developer is a software developer (a business or an individual) that creates computer or video games. A developer may specialize in a certain video game system, such as the Microsoft Xbox, Nintendo GameCube, or the Sony PlayStation 2 or may develop for a variety of systems including PCs. Developers also specialize in certain types of games, such as RPGs (Role Playing Games) or FPSs (First Person Games). Some focus on porting games from one system to another. Some focus on translating games from one language to another, especially from Japanese to English; an unusual few do other kinds of software development work in addition to games.

Most video game publishing companies, such as Electronic Arts, Activision, and Sony, maintain development studios, but these companies are generally called "publishers" and not "developers", as publishing is the primary activity of these companies, and is the source of most of their income.

Other than the publishers, there are well over 1,000 video game development companies today. Many are tiny 1- or 2-person operations creating Flash games for the Web, or games for cell phones. Others are large companies with multiple locations, such as Foundation 9 Entertainment, which says it has over 300 employees. As a rule, developers are privately held companies; only a very few non-publishing developers have ever been publicly traded companies.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA155	Flash Animation and Design	3
ECA156	Game Design	3
ENG124	College Composition^	3
		16
Semester II		
ECA222	C++ Programming	3
ECA223	Java Programming	3
ECA267	Advanced Flash Animation and Design	3
MTH125	College Algebra	4
	Arts/Humanities/Social Science Elective*	3
		16
Summer		
ENG221	Technical Report Writing	2
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication or Intergroup Communication	3
		6
Semester III		
ECA239	Advanced Java Programming	3
ECA240	Advanced Gaming and Simulation Topics (XNA)	3
ECA281	2D Game Design and Development	3
ECA282	Flash ActionScripting	3
MTH126	Pre-Calculus	4
MTH128	Trigonometry	1
		17
Semester IV		
	Technical Elective **	3
	Technical Elective **	3
ECA224	Advanced C++ Programming	3
ECA241	3D Game Design and Development	3
PHY121	Physics I	4
		16

71 TOTAL CREDIT HOURS

^ Based on SSC placement score

* PSY121, PSY122, PSY123, PSY124, PHL122, SOC121, SOC123, SOC225, PSC121

** ECA260, ECA261

\+ ECA292 should be taken in the last or next to the last semester of enrollment

COLLEGE TECH PREP

A college tech prep participant

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Cyber Security and Computer Forensics Technology

The cyber security and computer forensics technology program covers areas that are identified in the Emergency Preparedness and Response, Information Analysis and Infrastructure Protection divisions of the Department of Homeland Security. Major topics of the program include: risk and threat assessment on computer system and data, developing procedures to prevent and react to data and computer-related security breaches, and computer system security plan documentation.

Students graduating from Stark State College with a cyber security and computer forensics technology degree will assess a company's risk, document and implement security procedures and check for security breaches in their systems. Cyber security and computer forensic graduates can find employment in both the private and public sector, including positions related to homeland security.

Students interested in pursuing a 2+2 bachelor of science degree should consult their academic advisor prior to initial enrollment in the courses.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA145	PC Upgrading and Maintenance	3
ECA146	Introduction to Computer Networking	3
MTH125	College Algebra	4
		16
Semester II		
ECA136	Principles of Information Security	3
ECA137	Computer Crime and Investigation	3
ECA277	UNIX/LINUX Operating Environment	3
ENG124	College Composition^	3
MTH126	Pre-Calculus	4
		16
Summer		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
ENG224	Composition & Literature	3
		6
Semester III		
ECA129	Cryptography	3
ECA134	CCNA Phase I	2
ECA135	CCNA Phase II	2
ECA257	File Systems Analysis	3
ECA286	UNIX/LINUX Forensics	3
	Physical Science Elective***	3/4
		16/17
Semester IV		
ACC235	Forensic Accounting and Fraud Investigation	3
ACC236	Cyber Law & Ethics	3
ECA256	Disaster Recovery & Incident Planning	3
ECA258	Cyber Forensics & Data Recovery	3
ECA275	Ethical Hacking	3
ECA278	Firewall and Network Security	3
		18

72/73 TOTAL CREDIT HOURS

^ Based upon SSC placement score

*** BIO101, CHM101, or PHY101

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Cyber Security and Computer Forensics Technology

Digital Forensics Option

The digital forensics option focuses on the skills necessary for students interested in computer forensics to develop specific knowledge, skills and aptitudes to work on the proliferation of devices storing digital data. Students will develop skills in identifying, preserving, duplicating, validating and analyzing the material on a wide variety of devices. Students graduating from Stark State College with the Digital Forensics Option will have the skills to investigate incidents, gather information using publicly available sources of information, interview witnesses and suspects and perform an analysis of digital devices collected during the investigation.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA145	PC Upgrading and Maintenance	3
ECA146	Introduction to Computer Networking	3
ECA175	White Collar Crimes	3
		15
Semester II		
ECA129	Cryptography	3
ECA137	Computer Crime and Investigation	3
ECA277	UNIX/LINUX Operating Environment	3
ACC236	Cyberlaw and Ethics	3
ENG124	College Composition^	3
		15
Semester III		
ECA257	File Systems Analysis	3
MTH125	College Algebra	4
COM121/ COM123	Effective Speaking or Inter-group Communications	3
		10
Semester IV		
ECA258	Cyber Forensics & Data Recovery	3
ECA176	Online Investigative Resources	3
MTH126	Pre-Calculus	4
ENG224	Composition & Literature	3
	Physical Science Elective***	3/4
		16/17
Semester V		
ACC235	Forensic Accounting & Fraud Investigation	3
ECA275	Ethical Hacking	3
ECA300	Digital Media Forensics	3
ECA301	Advanced Digital Media Forensics	3
ECA286	UNIX/LINUX Forensics	3
		15

71/72 TOTAL CREDIT HOURS

^ Based upon SSC placement score

*** BIO101, CHM101, or PHY101

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Digital Video and Media Technology

Lights, camera, action! Students will use their imaginations to bring ideas to the big screen. Explore the exciting side of video, from concept to Web and DVD, as today's technology allows visions to become reality.

Camera work, digital editing and special effects are the focus of this degree. From script to screen, students will shoot, edit and master quality productions. Upon completion of the associate degree, students are prepared for employment with multimedia firms, creating educational, commercial or industrial videos.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
IMT121	Interactive Media	3
MTH125	College Algebra	4
IMT122	Graphic Arts Design	3
ENG124	College Composition^	3
		16
Semester II		
IMT132	Digital Photography	3
IMT129	Digital Audio Recording and Editing	3
IMT223	Digital Video Recording and Editing	3
ENG227	Writing for Media	3
IMT253	Graphics for Illustration	3
		15
Summer		
COM121	Effective Speaking	3
IMT125	3D Graphics Modeling	3
		6
Semester III		
ENG232	Screenwriting	3
IMT256	Digital Imaging	3
IMT237	Compositing	3
IMT242	Lighting and Cinematography	3
IMT252	Advanced Editing & Audio for Video	3
		15
Semester IV		
	Physical Science Elective***	4
IMT238	Advanced Video Production	3
IMT243	Advanced Compositing	3
IMT251	Authoring and Video Compression	3
	Arts/Humanities/Social Science Elective*	3
		15/16

67/68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121 or Art, Photography, Theater or Cinema class at Kent State University- Stark Campus (students may take a free+ class at Kent-Stark Campus in any semester enrolled in 12 or more credit hours at Stark State College).

*** CHM101, BIO101, PHY101

\+ Student must pay enrollment and registration fee at Kent-Stark

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Geographic Information Systems Technology

The geographic information systems (GIS) associate degree program provides the community with skilled professionals who use, edit, and make decisions using GIS systems. Graduates are able to work in diverse industries that use geographic information systems, including government agencies, construction, banking, health care, land use planning, transportation mapping and analysis, and emergency response.

With the growth and expansion of decision-making using spatial data and geographic locations, many organizations are looking for individuals who have skills and knowledge in GIS. GIS professionals can analyze and match spatial data with geographic location, create maps and make decisions relevant to their industries. They use, edit and manipulate the GIS software in their day-to-day operations. GIS is expected to be a growth occupation in Ohio and throughout the nation.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA253	Data Modeling and Database Design	3
GIS121	Geographic Information Systems & Remote Sensing	3
MTH125	College Algebra	4
		17
Semester II		
ECA128	Visual Basic Development	3
ECA139	Microsoft SQL Server Database	3
ENG124	College Composition^	3
ENV223	Basic Geology/Hydrology	3
GIS122	Geographic Information Systems Tools and Processes	3
		15
Summer		
GIS221	Special Topics in GIS (8 Weeks)	2
MTH222	Statistics	3
PSY121	General Psychology	3
		8
Semester III		
BIO126	Science, Energy, and the Environment	3
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication or Intergroup Communication	3
GIS222	Extended Tools in Remote Sensing (8 Weeks)	2
GIS223	Advanced Tools in GIS & Remote Sensing (8 Weeks)	2
GIS224	Extended Tools in Surface Analysis (8 Weeks)	2
GIS225	Extended Tools in Routing Analysis (8 Weeks)	2
		14
Semester IV		
ENG221	Technical Report Writing	3
GIS226	Extended Tools in 3D Visualization (8 Weeks)	2
GIS Project Electives		
GIS227	Geospatial Projects in Public Safety (8 Weeks)**	2
GIS228	Geospatial Projects in Agriculture (8 Weeks)**	2
GIS229	Geospatial Projects in Business and Marketing (8 Weeks)**	2
GIS230	Geospatial Projects in Creating a Campus Model (8 Weeks)**	2
SOC122	Society and Technology	3
		14

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

** Choose 6 Hours of Electives - GIS227, GIS228, GIS229, GIS230, ECA292

\+ ECA292 should be taken in the last or next-to-last semester of enrollment

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Homeland Security Information Technology

The homeland security technology program will prepare students for employment in the growing field of cyberspace security, and counterterrorism analysis at the level of government, private industry, national and international agencies.

Graduates of the homeland security technology program will be prepared to work in a variety of job settings such as: intelligence analyst, private security, airport custom agent, law enforcement, FBI, Secret Service, customs investigators, special agents, military service, border patrol, counterterrorism analyst, staff analyst, analyst developer as well as working for the international organizations such as UN, Foreign Service Affairs (US Department of State).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
HLS121	Introduction to Emergency Management	3
HLS122	Intelligence and Homeland Security	3
HLS123	Homeland Defense and Crisis Management	3
ECA146	Introduction to Computer Networking	3
MTH125	College Algebra	4
		16
Semester II		
ECA136	Principles of Information Security	3
ECA137	Computer Crime and Investigation	3
BIO127	Human Biology	4
HLS220	Weapons of Mass Destruction Awareness	3
FST225	Hazardous Materials	3
		16
Semester III		
ECA275	Ethical Hacking	3
ENG124	College Composition^	3
		6
Semester IV		
COM121/ COM123	Effective Speaking or Inter-group Communications	3
HLS221	Terrorism and Homeland Defense	3
CHM121	Gen, Org & Biol. Chemistry 1	4
ECA257	File Systems Analysis	3
ECA256	Disaster Recovery and Incident Planning	3
		16
Semester V		
HLS224	Emergency Response to Terrorism	3
ACC236	Cyber Law & Ethics	3
HLS222	Organizational Response & Networking Crisis Response	3
HLS223	Conflict Management	3
SOC225	Culture Diversity	3
		15

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

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Management Information Systems

Management information systems (MIS) studies the use of computers in business. As such, students study both business and technology and learn how to solve business problems using information technology. After learning about each key area of business, MIS students learn the tools they will apply to solve problems. Tools include computer hardware, operating systems, networking, programming, and database management systems. Application of the tools includes distributed information systems, system analysis, system design, and decision support systems. Management includes technology management and system implementation.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication or Intergroup Communications	3
ECA122	Computer Applications for Technical Professionals	3
ECA144	Desktop, LAN, and WAN Technologies	3
ECA228	Internet/Intranet Design and Development (HTML, XHTML, and CSS)	3
ENG124	College Composition †	3
		15
Semester II		
	Arts/Humanities/Social Science Elective *	3
ECA147	MCAS: Using Microsoft Office (Word, Excel, PPT, Access)	3
ECA148	Microsoft Excel: Analyzing Data to Make Better Decisions	3
ECA253	Data Modeling and Database Design	3
	Technical Elective **	3
		15
Summer		
ENG221	Technical Report Writing	3
MTH222	Statistics	3
	Arts/Humanities/Social Science Elective *	3
		9
Semester III		
BUS121	Business Administration	4
ECA294	MCAS: Using Microsoft Vista, Outlook, Publisher	3
ECA152	Microsoft Access: Designing Robust Applications	3
ECA255	MCTS: Managing Projects with Microsoft Project	3
	Technical Elective **	3
		16
Semester IV		
ECA265	Generating Reports for Decision Making	3
ECA293	MCAP: Developing Cross-Functional Skills	3
ECA292	Information Technology Capstone	3
	Technical Elective **	6
		15

70 TOTAL CREDIT HOURS

† Based on SSC placement score

* Select from PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225

** Select from ECA132, ECA133, ECA143, ECA149, ECA 153, ECA 167, ECA 168, ECA 169, ECA162, ECA163, ECA 164, ECA 165, ECA174

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Management Information Systems

Help Desk/Computer Support Specialist Option

Help desk and computer support is a discipline that studies the use of computers in business, industry, government and other organizations. This program is designed to train students to work in the help desk/technical support arena which has seen such explosive growth in recent years. The program is designed to allow students at all levels to take part, with a level of difficulty gradually unfolding in a series of stepwise courses, culminating in an associate of applied business in management information systems with a focus on help desk and computer user support.

This program prepares students to successfully work with customers and technology in a professional environment.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA132	Help Desk and Computer Support Concepts	3
ECA144	Desktop, LAN, and WAN Technologies	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
		16
Semester II		
ECA133	MCDST: Microsoft Certified Desktop	3
ECA255	MCTS: Managing Projects with Microsoft Project	3
ECA265	Generating Reports for Decision Making	3
ECA147	MCAS: Using Microsoft Office (Word, Ex, PPT, Access)	3
ENG124	College Composition^	3
		15
Summer		
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication or Intergroup Communications	3
ENG221	Technical Report Writing	3
MTH222	Statistics	3
		9
Semester III		
	Arts/Humanities/Social Science Elective*	3
	Technical Elective	3
ECA294	MCAS: Using Microsoft Vista, Outlook, Publisher	3
ECA259	MCITP: Consumer Support Technician	3
		12
Semester IV		
	Arts/Humanities/Social Science Elective*	3
BUS121	Business Administration	4
	Technical Elective **	3
ECA263	MCITP: Enterprise Support Technician	3
ECA264	IT Project Management	3
		16

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, PSC121

** Choose 6 Hours of Electives - ECA138, ECA143, ECA292

\+ Should be taken in the last or next to last semester of enrollment

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Management Information Systems

Medical Informatics Option

Medical informatics is the intersection of information science, medicine and health care. It deals with the resources, devices and methods required to optimize the acquisition, storage, retrieval and use of information in health and medicine. Informatics tools include not only computers but also clinical guidelines, formal medical terminologies, and information and communication systems. A degree in medical informatics provides students with expertise needed to evaluate information, organize it efficiently, index it for retrieval and preserve it for history. Students gain an understanding of information behavior and policy, learn effective procedures for implementation and assessment of information systems and develop strategies for enhancing user satisfaction in the information-seeking process. A degree in medical informatics enables students to seek positions where data, systems and people come together.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
BIO125	Medical Terminology	3
ECA122	Computer Applications for Technical Professionals	3
ECA144	Desktop, LAN, and WAN Technologies	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
		16
Semester II		
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication or Intergroup Communications	3
ECA147	MCAS: Using Microsoft Office (Word, Ex, PPT, Access)	3
ECA148	Microsoft Excel: Analyzing to Make Better Decisions	3
ECA150	Informatics	3
ENG124	College Composition^	3
		15
Summer		
ENG221	Technical Report Writing	3
MTH222	Statistics	3
	Arts/Humanities/Social Science Elective*	3
		9
Semester III		
ECA152	Microsoft Access: Designing Robust Applications	3
ECA255	MCTS: Managing Projects with Microsoft Project	3
ECA265	Generating Reports for Decision Making	3
	Arts/Humanities/Social Science Elective*	3
		12
Semester IV		
ECA294	MCAS: Using Microsoft Vista, Outlook, and Publisher	3
ECA264	IT Project Management	3
ECA280	Advanced Informatics	3
	Technical Elective**	3
HIT230	Healthcare Delivery in the U.S.	2
		14

66 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PHL122, SOC121, SOC122, SOC123, SOC225, PSC121

** Choose 3 Hours of Electives – ECA143, ECA292

\+ ECA292 Should be taken in the last or next-to-last semester of enrollment

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Management Information Systems

Microsoft Certified Application Specialist Option

Microsoft certified application specialists are a part of a global community of distinguished achievers. This Microsoft credential tells the world you have demonstrated proficiency in the newest standard of the world's foremost desktop computing applications. Microsoft certifications (based on globally recognized standards) demonstrate your computing skills and help advance your career prospects in a competitive job market. Microsoft certified application specialist certifications are primarily for individuals who use Microsoft Office programs as a vital part of their job functions. These certifications cover the entire Microsoft Office Suite, encompassing Word 2007, PowerPoint 2007, Excel 2007, Outlook 2007 and Access 2007, as well as Windows Vista.

This program provides you with the skills necessary to be successful in the ever-changing world of computers, as well as training on the Microsoft Office 2007 Suite of programs and the new Vista operating system

This program prepares you for entry-level work in Microsoft applications and/or preparation for transfer to a four-year design program at a university.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA144	Desktop, LAN, and WAN Technologies	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
ENG124	College Composition^	3
		16
Semester II		
	Arts/Humanities/Social Science Elective	3
ECA139	Microsoft SQL Server Database	3
ECA147	MCAS: Using Microsoft Office (Word, Ex, PPT, Access)	3
ECA148	Microsoft Excel: Analyzing to Make Better Decisions	3
ECA152	Microsoft Access: Designing Robust Applications	3
		15
Summer		
ENG221	Technical Report Writing	3
MTH222	Statistics	3
	Arts/Humanities/Social Science Elective*	3
		9
Semester III		
BUS121	Business Administration	4
ECA294	MCAS: Using Microsoft Vista, Outlook, Publisher	3
ECA255	MCTS: Managing Projects with Microsoft Project	3
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Comm or Intergroup Comm	3
		13
Semester IV		
ECA290	Microsoft Expression Studio	3
ECA265	Generating Reports for Decision Making	3
ECA293	MCAP: Developing Crossfunctional skills	3
		12

65 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225

** Choose 3 Hours of Electives - ECA143, ECA166, ECA167, ECA169, ECA292

\+ ECA292 should be taken in the last or next-to-last semester of enrollment

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Management Information Systems

One-Year Certificate
Computer Maintenance and Desktop Support Technician

This one-year certificate focuses on computer repair, desktop applications, and operating systems preparing the student for an entry-level position in the field of computer repair and desktop support. Students are provided with a solid foundation in personal computer hardware, operating systems, and data communications through theory and hands-on experiences in the laboratory. Courses in computer applications (software) are provided to augment student knowledge of computer systems.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
ECA122	Computer Applications for Technical Professionals	3
ECA132	Help Desk and Customer Support Concepts	3
		6
Semester I		
ECA133	MCDST: Microsoft Certified Desktop Support Technician	3
ECA144	Desktop, LAN, and WAN Technologies	3
ECA145	PC Upgrading and Maintenance	3
ECA146	Introduction to Computer Networking	3
		1
Semester II		
ECA259	MCITP: Consumer Support Technician	3
ECA263	MCITP: Enterprise Support Technician	3
BUS121	Business Administration	4
MTH222	Statistics	3
		13

31 TOTAL CREDIT HOURS

One-Year Certificate
Internet and Computing Core

Students in this program, and as employees after completing the program, will face situations where they are called upon to demonstrate their competency with an increasing variety of computers and computer software. This program is designed to ensure they have the basic skills they need. This one-year certificate will provide a strong basis for anyone seeking to improve and validate their digital literacy. For those already employed, this program is designed to help increase productivity and expand the employee's computer knowledge base.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ECA122	Computer Applications for Technical Professionals	3
ECA144	Desktop, LAN, and WAN Technologies	3
MTH222	Statistics	3
ECA149	Introduction to Computers	1
ECA153	Introduction to the Internet	1
ECA174	The Information Age: Social Networking	1
ECA168	MCAS: Using Microsoft Vista	1
ECA162	MCAS: Using Microsoft Office Outlook	1
		14
Semester II		
ECA147	MCAS: Using Microsoft Office (Word, Excel, PPT, Access)	3
ECA167	MCAS: Using Microsoft Visio	1
ECA169	MCAS: Using Microsoft Groove	1
ECA163	Open Office Applications I	1
ECA165	MCAS: Using Microsoft Office Publisher	1
ECA166	MCTS: Microsoft Windows Mobile	1
ECA143	Planning, Designing and Implementing an Imaging System3	
BUS121	Business Administration	4
		15

29 TOTAL CREDIT HOURS

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Management Information Systems

One-year Certificate
Microsoft Certified Application Specialist

This comprehensive, performance-based one-year certificate is designed to provide proficiency in Microsoft Office 2007: Word, Excel, Power Point, Outlook, and Access. The program provides computer-program literacy, measures proficiency, and identifies opportunities for skills enhancement. A focus is placed on achieving certification with students highly encouraged to take the Microsoft Certified Application Specialist Tests.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
ECA122	Computer Applications for Technical Professionals	3
ECA168	MCAS: Using Microsoft Vista	1
ECA162	MCAS: Using Microsoft Office Outlook	1
ECA153	Introduction to the Internet	1
MTH222	Statistics	3
		9
Semester I		
ECA167	MCAS: Using Microsoft Visio	1
ECA147	MCAS: Using Microsoft Office W, E, P, A	3
ECA255	MCTS: Managing Projects with Microsoft Project	3
ECA294	MCAS: Using Microsoft Vista, Outlook, and Publisher	3
		10
Semester II		
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
BUS121	Business Administration	4
		10

29 TOTAL CREDIT HOURS

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3D Graphics and Animation Technology

The interactive media technology program is an adventure into the creative side of computing emphasizing 3D graphics and animation.

An associate degree in 3D graphics and animation technology will prepare students for careers in communication through media. The skills the student develops can be applied to the health care and manufacturing industries to provide 3D instruction and training materials. Additional fields of employment include gaming, marketing, advertising, and entertainment.

Join a field where you can put your creativity to work!

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
IMT121	Interactive Media	3
IMT136	Principles of Animation	3
MTH125	College Algebra	4
IMT122	Graphic Arts Design	3
ENG124	College Composition^	3
		16
Semester II		
IMT125	3D Graphics Modeling	3
IMT249	Textures & Effects for 2D & 3D Design	3
IMT227	3D Graphics Animation	3
IMT253	Graphics for Illustration	3
	Arts/Humanities/Social Science Elective*	3
		15
Summer		
COM121/ COM123	Effective Speaking	3
ECA122	Computer Applications for Technical Professionals	3
		6
Semester III		
IMT233	Advanced Textures and Effects	3
IMT240	Advanced 3D Graphics Modeling	3
IMT228	Advanced 3D Graphics Animation	3
IMT237	Compositing	3
ECA155	Flash Animation	3
		15
Semester IV		
	Physical Science***	3/4
IMT258	3D Production Practicum	3
IMT257	Advanced Rendering	3
ENG227	Writing for Media	3
	Arts/Humanities/Social Science Elective*	3
		15/16

67/68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* ACC130, PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225, BUS122, BUS221, BUS222, PSC121 or Art, Photography, Theater or Cinema class at Kent State University- Stark Campus

*** PHY101, CHM101, BIO101

COLLEGE TECH PREP

A college tech prep participant

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Web Design and Development Technology

Web design and development technology students focus on the exciting and lucrative field of online Internet design and programming. They learn to develop interactive database-driven Web sites using the latest technology. While everyone else is trying to figure out the new information technology buzzwords, Stark State's Web design and development students will be applying them in the classroom.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
ENG124	College Composition^	3
		16
Semester II		
ECA128	Visual Basic Development	3
ECA138	Web Graphics Design	3
ECA139	Microsoft SQL Server Database	3
ECA225	Web Development with JavaScript and AJAX	3
MTH125	College Algebra	4
		16
Summer		
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Communication	3
MTH222	Statistics	3
	Arts/Humanities/Social Science Elective*	3
		9
Semester III		
ECA229	Active Server Page Development	3
ECA234	Advanced Cascading Style Sheets	3
ECA236	Web Development with PHP and MySQL	3
ENT120	Entrepreneurship	2
ECA266	Search Engine Optimization	3
		14
Semester IV		
	Technical Elective**	3
	Technical Elective**	3
ECA296	Advanced Active Server Page Development	3
ENT121	Entrepreneurial Marketing	3
	Technical Elective**	3
		15

70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PSY221, PHL122, SOC121, SOC122, SOC123, SOC225

** ECA154, ECA155, ECA226, ECA266, ECA267, ECA268, ECA282, ECA297, ECA298, ECA290

\+ ECA292 should be taken in the last or next-to-last semester of enrollment

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Web Design and Development Technology

Microsoft Certified Technology Specialist Option

The Microsoft certified technology specialist (MCTS) option provides the foundation for Microsoft certification. These certifications are designed to validate your skills on the features and functionality of key technologies. You can show your depth of knowledge in one specific technology, earn multiple certifications to show breadth across different products, or build on the MCTS to earn a professional series credential.

Earning a certification validates your proven experience and knowledge in using Microsoft products and solutions. Designed to be relevant in today's rapidly changing IT marketplace, MCTS help you utilize evolving technologies, fine-tune your troubleshooting skills, and improve your job satisfaction.

This program prepares you for entry-level work in Microsoft development and applications and/or preparation for transfer to a four-year design program at a university.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
ENG124	College Composition^	3
		16
Semester II		
ECA128	Visual Basic Development	3
ECA139	Microsoft SQL Server Database	3
ECA229	Active Server Page Development	3
ECA297	Microsoft Sharepoint Development	3
MTH125	College Algebra	4
		16
Summer		
COM121/ COM122/ COM123	Effective Speaking or Interpersonal Comm or Intergroup Comm	3
MTH222	Statistics	3
	Arts/Humanities/Social Science Elective*	3
		9
Semester III		
ECA226	Windows Programming with C#	3
ECA288	Microsoft ADO Development	3
ECA289	Microsoft Presentation Foundations	3
ECA296	Advanced Active Server Page Development	3
ENT120	Entrepreneurship	2
		14
Semester IV		
ECA287	Developing Custom Controls for .NET	3
	Technical Elective **	3
	Technical Elective **	3
ENT121	Entrepreneurial Marketing	3
		12

67 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PHL122, SOC121, SOC123, SOC225, PSC121

** ECA225, ECA234, ECA264, ECA269, ECA290, ECA292, and ECA298

\+ ECA292 should be taken in the last or next-to-last semester of enrollment

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Web Design and Development Technology

Web Design Option

The Web design option provides you with fundamentals in software tools, design theory, and current practices in the Web design. Working in teams and individually, you will also develop your creativity and learn to solve design problems in innovative ways. The core courses provide a broad foundation of skills and the specified electives target a specific niche area of Web design.

This program prepares you for entry-level work in Web design and/or preparation for transfer to a four-year design program at a university.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
ECA158	Web Design: Accessibility & Usability	1
ECA160	Web Design: Ethics – Standards, Guidelines and Laws	1
ECA161	Web Design: Media Elements – Audio, Video and Animations	1
		16
Semester II		
ECA138	Web Graphics Design	3
ECA154	Web Design with Dreamweaver	3
ECA155	Flash Animation and Design	3
ECA290	Microsoft Expression Studio	3
ENG124	College Composition^	3
		15
Summer		
COM 121/ COM122/ COM123	Effective Speaking or Interpersonal Comm or Intergroup Comm	3
MTH222	Statistics	3
	Arts/Humanities/Social Science Elective*	3
		9
Semester III		
ECA139	Microsoft SQL Server Database	3
ECA234	Advanced Cascading Style Sheets	3
ECA267	Advanced Flash Animation and Design	3
ENT120	Entrepreneurship	2
MTH125	College Algebra	4
		15
Semester IV		
ECA266	Search Engine Optimization	3
ENT121	Entrepreneurial Marketing	3
	Technical Elective**	3
	Technical Elective**	3
	Technical Elective**	3
		15

70 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PHL122, SOC121, SOC123, SOC225, PSC121

** Choose 9 Hours of Electives - ECA157, ECA225, ECA264, and ECA282

\+ ECA292 should be taken in the last or next-to-last semester of enrollment

Web Design and Development Technology

Web Server Administration Option

This option will provide students with the skills to effectively develop and administer Web server site installations. Students will develop advanced skills in both client side Web software and server side software. Upon completion of the program students will be well-versed in the skills necessary to pursue careers in Web site administration.

This program prepares you for entry-level work in Web server administration and/or preparation for transfer to a four-year design program at a university.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ITD121	Information Technology Seminar	1
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
ECA228	Internet/Intranet Design and Development	3
ECA253	Data Modeling and Database Design	3
ENG124	College Composition^	3
		16
Semester II		
ECA145	PC Upgrading and Maintenance	3
ECA146	Introduction to Computer Networking	3
ECA277	Unix/Linux Operating Environment	3
MTH125	College Algebra	4
		13
Semester III		
ECA139	Microsoft SQL Server Database	3
ECA225	Web Development with JavaScript and AJAX	3
ECA244	Windows Server Network Infrastructure	3
ECA274	Unix/Linux System Administration	3
ENT120	Entrepreneurship	2
		14
Semester IV		
ECA269	Advanced Microsoft SQL Server Database	3
ECA276	Unix/Linux Network Administration	3
ECA279	Web Server Administration	3
	Technical Elective**	3
ENT121	Entrepreneurial Marketing	3
		15

67 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* PSY121, PSY122, PSY123, PSY124, PHL122, SOC121, SOC123, SOC225,

** Choose 3 Hours of Electives – ECA288, ECA289, and ECA292

\+ ECA292 should be taken in the last or next-to-last semester of enrollment

Web Design and Development Technology

One-Year Certificate
Microsoft Certified Technology Specialist

Becoming a Microsoft Certified Technology Specialist (MCTS) enables professionals to target specific technologies and to distinguish themselves by demonstrating in-depth knowledge and expertise in their specialized technologies. An MCTS is consistently capable of implementing, building, troubleshooting, and debugging a particular Microsoft technology. This one-year certificate program provides technology professionals with an in-depth view of Microsoft development in a variety of business contexts. The program is project-driven, which enables students to work on smaller applications as well as a longer development project that spans the course sequence. Concepts and tools, development, optimization, troubleshooting, ADO, controls, and architecture are covered.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
ECA122	Computer Applications for Technical Professionals	3
ECA127	Programming Logic and Problem Solving	3
MTH222	Statistics	3
		9
Semester I		
ECA128	Visual Basic Development	3
ECA139	Microsoft SQL Server Database	3
ECA229	Active Server Page Development (ASP.NET)	3
ECA288	Microsoft ADO Development	3
		12
Semester II		
ECA225	Web Development with JavaScript and AJAX	3
ECA296	Advanced Active Server Page Development (ASP.NET)	3
ECA287	Developing Custom Controls for .NET	3
		9

30 TOTAL CREDIT HOURS

One-Year Certificate
Microsoft Certified Technology Specialist – Advanced

This one-year certificate is a continuation of the MCTS certificate with additional focus on the advanced features of Microsoft development – including Sharepoint, Silverlight, and other advanced architectural packages.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
ENT120	Entrepreneurship	2
ECA290	Microsoft Expression Studio	3
ECA238	Advanced Visual Basic Development	3
		8
Semester I		
ECA269	Advanced Microsoft SQL Server Database	3
ECA298	Microsoft Silverlight Development	3
ENT121	Entrepreneurial Marketing	3
ENT221	Entrepreneurial Finance	3
		12
Semester II		
ECA272	Microsoft SQL Server Database – Business Intelligence	3
ECA297	Microsoft SharePoint Development	3
ECA289	Microsoft Presentation Foundations	3
ENT222	New Venture Creation	2
		11

31 TOTAL CREDIT HOURS

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Web Design and Development Technology

One-year Certificate
Web Design

There is a huge gap between demand for information and the supply of relevant content in the business arena. There are people who are desperately looking for certain products and services but unable to find relevant links because business offerings are not available online, or at least not visible on search engines. As organizations seek to expand their markets and to substantiate themselves as respectable and "up and coming" companies, they need to provide a Web presence. This certificate program will provide incoming and current Web designers and information professionals with the curriculum to become employed in this growing and expanding area.

SUGGESTED COURSE SEQUENCE		Credit Hours
Summer		
ECA122	Computer Applications for Technical Professionals	3
ECA228	Internet/Intranet Design and Development	3
MTH222	Statistics	3
		9
Semester I		
ECA158	Web Design: Accessibility & Usability	1
ECA160	Web Design: Ethics – Standards, Guidelines and Laws	1
ECA161	Web Design: Media Elements – Audio, Video and Animations	1
ECA29	Microsoft Expression Studio	3
ECA138	Web Graphics Design	3
ECA155	Flash Animation and Design	3
		12
Semester II		
ECA234	Advanced Cascading Style Sheets	3
ECA266	Search Engine Optimization	3
ECA267 or ECA154	Advanced Flash Animation and Design or Web Design with Dreamweaver	3
		9

30 TOTAL CREDIT HOURS

** Choose 3 Hours of Electives - ECA154, ECA267

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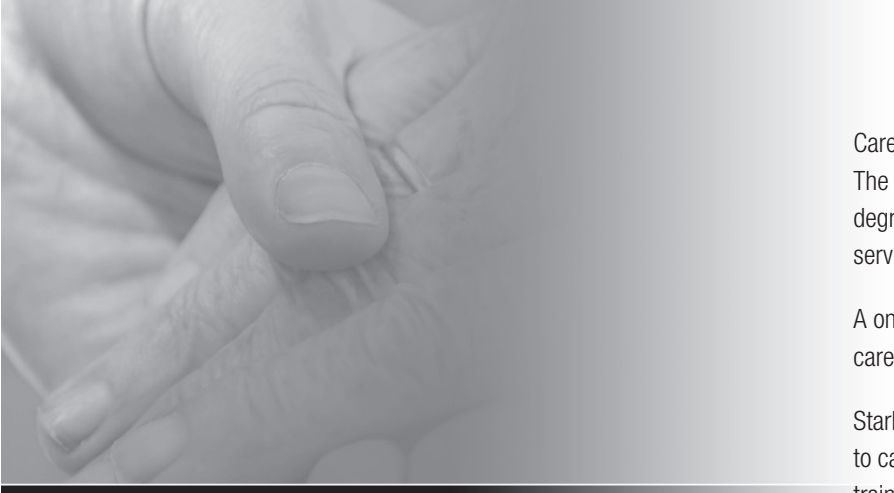

Careers in public service are in demand more than ever before. The Public Services Division of Stark State College offers associate degrees in early childhood education and human and social services technology.

A one-year American sign language certificate and a gerontology career enhancement certificate are also offered.

Stark State's goal is to attract traditional and nontraditional students to careers in these areas and to provide the quality education, training, skills and values necessary for our students to succeed and excel in those fields.

Public Services Division

Early Childhood Education

The early childhood education program prepares students for professional careers as teachers, paraprofessionals, and administrators in a variety of childcare/education settings. Graduates may seek employment in public and private preschool, Montessori, Head Start, school-age and other programs.

The associate degree program also provides a solid foundation for further education. Stark State College provides early childhood education graduates with a solid basis for pursuing a bachelor's degree in education and related fields.

Coursework features a holistic, child-centered approach to educating children that promotes the appreciation of the diversity and special needs of today's children and families. Teacher training emphasizes developmentally appropriate curriculum design and instruction based on guidelines set by the National Association for Education of Young Children (NAEYC). The 68-credit hour program includes extensive field observations and a 210-hour practicum.

The qualified candidate for the associate degree in early childhood education will demonstrate professional knowledge, abilities, dispositions, values, and attitudes regarding child development and learning, curriculum development and implementation, family and community relationships, assessment and evaluation, professionalism, and practice during field experiences.

Students are required to complete an early childhood education (ECE) application packet. The ECE application packets are distributed to students when enrolled in Introduction to Early Childhood Education (ECE121) or Curriculum Design and Instruction (ECE122).

Upon successful completion of the early childhood education program and with the recommendation of early childhood education department chair, graduates may apply for their pre-kindergarten associate license from the Ohio Department of Education.

All students interested in the ECE program are required to undergo a criminal background check prior to applying to the ECE program. Criminal background checks may prevent placements, program completion/graduation, and potential employment in the field.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
EDU121	Introduction to Early Childhood Education+ (15 Observation Hours)	3
EDU126	Educational Technology	3
SOC123	Dynamics of the Family	3
PSY121	General Psychology	3
ENG124	College Composition^	3
		15
Semester II		
EDU122	Curriculum Design and Instruction+ (15 Observation Hours)	3
EDU123	Health & Nutrition+ (5 Observation Hours)	3
SOC225	Cultural Diversity	3
PSY125	Child Development (10 Observation Hours)	3
MTH222	Statistics	3
COM121	Effective Speaking	3
		18
Semester III		
EDU221	Language Arts+ (10 Observation Hours)	3
EDU222	Creative Materials & Guided Play+	3
EDU223	Community & Family-based Program+	3
EDU229	Educational Psychology+ (5 Observation Hours)	3
EDU226	Wrap-around Programs+ (5 Observation Hours)	2
PHL122	Ethics	3
EDU124	Infant-Toddler Curriculum+ (5 Observation Hours)	2
		19
Semester IV		
EDU224	Early Childhood Program Administration	3
EDU225	The Exceptional Child + (5 Observation Hours)	3
EDU228	Phonics for Young Children+ (5 Observation Hours)	3
EDU227	ECE Practicum and Seminar+ (210 Supervised Practicum Hours)	3
BIO126	Science, Energy and the Environment	4
		16

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Requires "C" or better required for all courses

Note: All noted observation hours/supervised practicum hours must be completed to pass the course.

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Early Childhood Education

Intervention Specialist Option

The education intervention specialist option prepares students for employment in educational/child care settings that provide services to children with special needs. Graduates may seek employment as paraprofessionals in public institutions such as MRDD or public preschool programs.

The associate degree program also provides a solid foundation for further education. Stark State College provides education graduates with a solid basis for pursuing a bachelor's degree in education and related fields.

Coursework features a holistic, child-centered approach to educating children that promotes the appreciation of the diversity and special needs of today's children and families. Teacher training emphasizes developmentally appropriate curriculum design and instruction based on guidelines set by the National Association for Education of Young Children (NAEYC) and Ohio standards. The 71-credit hour program includes extensive field observations and a 210-hour practicum in a special needs classroom.

The qualified candidate for the associate degree in education intervention specialist major will demonstrate professional knowledge, abilities, dispositions, values, and attitudes regarding child development and learning, curriculum development and implementation, family and community relationships, assessment and evaluation, professionalism, and practice during field experiences.

Students are required to complete an education application packet. The education application packets are distributed to students when enrolled in Introduction to Early Childhood Education (ECE121) or Curriculum Design and Instruction (ECE122).

Upon successful completion of the education program and with the recommendation of the education department chair, graduates may apply for their pre-kindergarten associate license from the Ohio Department of Education.

All students interested in the education program are required to undergo a criminal background check prior to applying to the ECE program. Criminal background checks may prevent placements, program completion/graduation, and potential employment in the field.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
EDU121	Introduction to Early Childhood Education+ (15 Observation Hours)	3
SOC123	Dynamics of the Family	3
PSY121	General Psychology	3
ENG124	College Composition^	3
EDU126	Educational Technology+	3
PHL122	Ethics	3
		18
Semester II		
EDU122	Curriculum Design and Instruction+ (15 Observation Hours)	3
SOC225	Cultural Diversity	3
PSY125	Child Development (10 Observation Hours)	3
MTH222	Statistics	3
COM121	Effective Speaking	3
EDU125	Children with Physical Exceptionalities+ (5 Observation Hours)	3
		18
Semester III		
EDU221	Language Arts+ (10 Observation Hours)	3
EDU222	Creative Materials & Guided Play+ (10 Observation Hours)	3
EDU223	Community and Family-based Programs+ (5 Observation Hours)	3
EDU229	Education Psychology+	3
EDU230	Children with Socioemotional Exceptionalities+ (5 Observation Hours)	3
EDU226	Wrap-around Programs (5 Observation Hours)	2
EDU124	Infant-Toddler Curriculum+ (5 Observation Hours)	2
		19
Semester IV		
EDU224	Early Childhood Program Administration	3
EDU225	The Exceptional Child+ (5 Observation Hours)	3
EDU227	ECE Practicum and Seminar+ (210 Supervised Practicum Hours)	3
EDU228	Phonics for Young Children+ (5 Observation Hours)	3
BIO126	Science, Energy and the Environment	4
		16

71 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Requires grade of "C" or better

Note: All noted observation/supervised practicum hours must be completed to pass the course.

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Early Childhood Education

One-year Certificate
Administrator Certificate for Early Childhood Professionals

The administrator certificate for early childhood professionals is for those interested in pursuing a career in early childhood administration and leadership. This program will provide individuals with a general overview of the administrative responsibilities needed to operate and supervise an early childhood learning facility, while enhancing their knowledge of early childhood education and administration. Students must complete technology courses with a grade of "C" or better. This certificate may be viewed as the first step towards an associate in early childhood education, and ultimately, a bachelor's degree.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
BUS121	Business Administration+	4
ENG124	College Composition^	3
MGT121	Principles of Management+	3
EDU126	Educational Technology+	3
SOC123	Dynamics of the Family	3
COM121	Effective Speaking	3
		19
Semester II		
ACC130	Business Law and Ethics	3
SOC225	Cultural Diversity+	3
EDU124/ EDU226	Infant/Toddler Curriculum OR WrapAround Programs	2
MGT221	Supervision+	3
EDU230	ECE Administrator Practicum/Seminar+	3
	Elective*	3
		17

36 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* Electives: EDU122; EDU223; EDU225; PSY125

\+ Requires a grade of "C" or better

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Education

One-year Certificate
American Sign Language

Stark State College offers an American sign language (ASL) certificate designed for individuals who want to learn about persons who are deaf and their unique culture and community. This one-year certificate program provides a general overview of the deaf community and will enhance your knowledge of American sign language. The ASL certificate will not qualify you to be a licensed practitioner. Students must complete ASL courses with a grade of "C" or better.

All students interested in the ASL certificate program are required to undergo a criminal background check. Criminal background checks may prevent placements, program completion and potential employment in the field.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
ASL121	Introduction to the Deaf Culture and Community+ (5 Observation Hours)	3
ASL122	American Sign Language I+ (10 Observation Hours)	3
ASL123	Introduction to Interpreting+ (5 Observation Hours)	3
COM121	Effective Speaking	3
		12
Semester II		
ASL124	American Sign Language II+ (10 Observation Hours)	3
ASL125	Fingerspelling (5 Observation Hours)	2
ENG124	College Composition^	3
PSY121	General Psychology	3
		12
Semester III		
ASL221	American Sign Language III+ (10 Observation Hours)	3
ASL222	ASL Practicum and Seminar (210 Supervised Practicum Hours)	3
SOC123	Dynamics of the Family	3
		9

33 TOTAL CREDIT HOURS

^ Based on SSC placement score

\+ Requires a grade of "C" or better

Note: All noted observation hours/supervised practicum hours must be completed to pass the course.

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Human and Social Service Technology

The human and social service technology program prepares students for employment as paraprofessionals in the field of social work. Career opportunities exist in a wide range of human and social services.

The human and social service field is concerned with those services and occupations that provide for meeting the diverse needs of individuals and/or families for a more satisfying, self-sufficient way of life. Social services personnel must be knowledgeable about and sensitive to the unique needs and cultural diversity of people of all ages and socioeconomic circumstances. Students participate in a supervised practicum as well as classroom instruction to help develop and enhance professional skills.

All students in the HSST program are required to undergo a criminal background check. Criminal background checks may prevent placements, program completion and potential employment in the field.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
SWK121	Introduction to Social Welfare+	3
ENG124	College Composition ^	3
SOC123	Dynamics of the Family	3
COM121	Effective Speaking	3
BCA120	Business Computer Applications	4
		16
Semester II		
SWK124	Methods in Practice I+	3
SWK224	Poverty in the U.S.+	3
PSY121	General Psychology	3
SOC225	Cultural Diversity	3
BIO127	Human Biology	4
	Elective*+	3
		19
Semester III		
SWK130	Methods in Practice II+	3
SWK126	Human Behavior and the Social Environment+	3
MTH222	Statistics	3
SWK125	Substance Abuse	3
SWK225	Victimization and Crisis Intervention	3
PSC121	Political Science	3
		18
Semester IV		
BUS122	Basic Economics	3
SWK231	HSST Social Service Practicum/Seminar+	3
GER121	Introduction to Gerontology+	3
SWK127	Group Processes	3
	Elective*+	3
		15

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

* Select from GER 122, SOC 121, SOC124, SOC221, SOC221, SOC222, PSY122, PSY123, PSY124, PSY125, PSY221, SWK223, SWK226.

\+ Requires a grade of "C" or better.

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

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Human and Social Service Technology

Gerontology Option

The gerontology option provides students with knowledge and understanding of the normal but highly variable process of aging and human development. The option prepares students to be more effective in working with older adults and in the implementation of programs and services for the elderly. The gerontology option is designed for the professional or paraprofessional individual currently working in the field of aging; students who anticipate working with older adults; and anyone who is interested in understanding the aging process for personal or professional reasons.

All students in the HSST program are required to undergo a criminal background check. Criminal background checks may prevent placements, program completion and potential employment in the field.

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
SWK121	Introduction to Social Welfare+	3
ENG124	College Composition^	3
SOC123	Dynamics of the Family	3
COM121	Effective Speaking	3
BCA120	Business Computer Applications	4
		16
Semester II		
GER121	Introduction to Gerontology+	3
SWK224	Poverty in the U.S.+	3
PSY121	General Psychology	3
SOC225	Cultural Diversity	3
SWK124	Methods in Practice I+	3
SWK226	Social Service Law	3
		18
Semester III		
SWK130	Methods in Practice II+	3
SWK126	Human Behavior and the Social Environment+	3
MTH222	Statistics	3
SWK125	Substance Abuse	3
GER122	Psychosocial Aspects of Aging+	3
PSC121	Political Science	3
		18
Semester IV		
BUS122	Basic Economics	3
SWK231	HSST Social Service Practicum/ Seminar+	3
SWK230	Social Service for the Elderly+	3
SWK127	Group Processes	3
BIO127	Human Biology	4
		16

68 TOTAL CREDIT HOURS

^ Based upon SSC placement score

\+ Requires a grade of "C" or better

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Human and Social Service Technology

One-year Certificate
Law Enforcement Academy

The law enforcement academy one-year certificate is for individuals interested in pursuing a career in law enforcement. This is an intensive program which meets Monday-Thursday evenings from 5:30 – 9:30 p.m.; Saturdays from 8 a.m. - 5 p.m.; and approximately five Sundays 8 a.m. - 5 p.m. Two programs are offered each year with classes held August through February or January through August.

Prior to acceptance into the program, background checks are completed and submitted to the Bureau of Criminal Investigation and the Federal Bureau of Investigation. Individuals who have been convicted of a felony, domestic violence, or drug convictions will not be eligible for this program. Application packets are available in Office of Admissions/Student Services and in the Public Services Division.

Students 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 one-year certificate, and pass the physical conditions testing, are eligible to take the Ohio Basic Peace Officer Certification (state examination).

SUGGESTED COURSE SEQUENCE		Credit Hours
Semester I		
CJS121	Introduction to Criminal Justice	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	3
		18
Semester II		
CJS230	Patrol Administration and Civic Disorders	3
CJS231	Traffic Enforcement	3
CJS232	Homeland Security	2
CJS233	Standard First Aid	1
CJS234	Criminal Investigation	3
CJS235	Self Defense II	3
CJS236	Human Relation II	3
		18

36 TOTAL CREDIT HOURS

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Career Enhancement Certificates

Career enhancement certificates are short-term credit-bearing certificates designed to help students optimize their current employment as well as expand future employment opportunities. Participation in these programs allows the student to:

- broaden current work skills
- develop new work skills
- certify proficiencies
- earn college credit toward a degree

Students do not need to be enrolled in a degree program; however, many of these certificates can be combined, or "stacked," leading to a one-year certificate, an associate degree, or beyond.

Career enhancement certificates are perfect for students who need to develop specific sets of skills to qualify for or improve their performance in a given career setting. These certificates verify proficiency in a variety of knowledge areas.

These courses are offered on campus; however, on-site training is available for companies and can be tailored to meet their needs.

To apply for these career enhancement certificates, please contact the department chair of the appropriate department by calling 330-494-6170. For the most current career enhancement certificates, visit ***www.starkstate.edu/careerenhancement***.

Career Enhancement Certificates

Career Enhancement Certificates

ARTS AND SCIENCES DIVISION

COMMUNICATIONS

Technical Communications

College Composition (ENG124)
- Computer Applications for Technical Professionals (ECA122)
- Technical Report Writing (ENG221)
- Writing for Media (ENG 227)
- Technical Editing and Layout (ENG125)
- Interviewing I (COM223)

BUSINESS AND ENTREPREURIAL STUDIES DIVISION

ACCOUNTING AND FINANCE

Basic Accounting Skills
- Financial Accounting (ACC132)
- Payroll Accounting (ACC227)
- Computerized Accounting Applications (ACC229)
- Business Math (BUS123)

Financial Accounting
- Quantitative Business Statistics (ACC127)
- Financial Accounting (ACC132)
- Intermediate Accounting I (ACC221)
- Intermediate Accounting II (ACC222)

Managerial Accounting
- Quantitative Business Statistics (ACC127)
- Financial Accounting (ACC132)
- Managerial Accounting (ACC133)
- Cost Accounting (ACC223)

Taxation
- Individual Taxation (ACC124)
- Business Taxation (ACC228)
- Estate and Income Tax Planning (FIN223)
- Advanced Taxation Topics (ACC233)

ADMINISTRATIVE OFFICE

Broadcast Captioning *(for reporting professionals)*
- Basic Broadcast Captioning (IRT230)
- Advanced Broadcast Captioning (IRT235)

Broadcast Captioning *(for non-reporting professionals and students)*
- Realtime Theory I (IRT121)
- Realtime Theory II (IRT122)
- Speed Building I (IRT129)
- Speed Building II (IRT130)
- Speed Building III (IRT123)
- Basic Broadcast Captioning (IRT230)
- Advanced Broadcast Captioning (IRT235)

Desktop Publishing
- Desktop Publishing – Microsoft Publisher (AOT128)
- Graphic Design Concepts (AOT131)
- Computer Applications – PowerPoint (AOT104)
- Web Design for Office Professionals (AOT238)

Judicial Reporting
- Realtime Theory I (IRT121)
- Realtime Theory II (IRT122)
- Speed Building I (IRT129)
- Speed Building II (IRT130)
- Speed Building III (IRT123)
- Realtime Software Applications (IRT229)
- Judicial Procedures (IRT230)
- IRT Internship (IRT232)

Legal Assisting
- Legal Transcription (AOT239)
- Legal Office Procedures (AOT224)
- Legal Research and Writing (AOT235)
- Legal Office Applications (AOT237)
- Legal Terminology (IRT131)

Scopist
- Realtime Theory for Scopists (IRT133)
- Realtime Software Applications (IRT229)
- Judicial Procedures (IRT231)
- Transcription & Editing for Scopists (IRT233)

Realtime Transcription
- Realtime Theory I (IRT121)
- Realtime Theory II (IRT122)
- Speedbuilding I (IRT129)
- Speedbuilding II (IRT130) (Must pass speed requirements)
- Realtime Software Applications (IRT229)

MANAGEMENT AND MARKETING

Advanced Entrepreneurship
- Business Plan Development (MGT224)
- Managing Entrep Growth (ENT124)
- Entrepreneurial Law (ENT224)
- Global Entrepreneurship (ENT225)
- Entrepreneurship Practicum Field Project (ENT226)
- Business Leadership (MGT233)
- Entrepreneurial Accounting(ENT123)

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Entrepreneurship
- Entrepreneurship (ENT120)
- Entrepreneurship Marketing (ENT121)
- Managing Entrepreneurial Growth (ENT124)
- Business Plan Development (MGT124)

International Business
- International Business (MGT232)
- International Economics (BUS223)
- International Law (ACC134)

Quality Management
- Principles of Management (MGT121)
- Supervision (MGT221)
- Business Decision-Making (MGT233)
- Operations Management (MGT227)
- Sales

Sales (MKT221)
- Consumer Behavior (MKT227)
- Principles of Marketing (MKT121)
- Supply Chain Management (MKT226)

Supervision
- Principles of Management (MGT121)
- Supervision (MGT221)
- Cultural Diversity (SOC225)
- Effective Speaking (COM121)

ENGINEERING TECHNOLOGIES DIVISION

APPLIED INDUSTRIAL TECHNOLOGY

Automation and Robotics Specialist *(FANUC Automation and Robotics Certification can be obtained at course completion for an additional fee)*
- Intro to Algebra (MTH101)
- Electrical Circuits and Devices (EST130)
- Introduction to Robotics (IET228)
- Industrial Robotics (AIT135)

Basic Industrial Maintenance
- Intro to Algebra (MTH101)
- Electrical Circuits and Devices (EST130)
- Hydraulic and Pneumatic Systems (MST134)
- Blueprint Reading (MST121)

Basic Robotics
- Introduction to Robotics (IET228)
- Mechanical Drives (MST221)
- Programming Logic Fundamentals (ECA127)
- Electrical Circuits and Devices (EST130)

CAD/CAM (Computer-Aided Drafting/Computer-Aided Machining) Specialist
- Machine Tools (AIT122)
- CNC Programming (IET223)
- CAD/CAM (AIT137)
- Advanced CAD/CAM (AIT225)

Industrial Hydraulics and Pneumatics
- Hydraulic and Pneumatic Systems (MST134)
- Basic Pumps (MST125) (8 wks)
- Pipefitting Principles and Applications (MST126) (8 wks)
- Plumbing and Pipe Code Principles (MST135)

Mechanical Drive Systems
- Blueprint Reading (MST121)
- Mechanical Drive Components (MST221)
- Basic Pumps (MST125)
- Hydraulic and Pneumatic Systems (MST134)

Precision Machining and CNC Programming
- Machine Tools (AIT122)
- Advanced Machine Tools (AIT123)
- CNC Programming (AIT121)

Quality Assurance Specialist
- Statistical Process Control (MST131)
- Dimensional Metrology and Inspection I (IET270)

Welding Technology American Welding Society (AWS) Certification Exam Preparation

General MIG, TIG, Aluminum, & Oxyfuel Welding (General AWS D1.1 exam Prep)
- Blueprint Reading (MST121)
- Principles of Welding (MST127)**
- Welding Lab (MST128)**
- 3G (Pipe) Welding Certification Exam Preparation
- Engineering Independent Study (ETD204) (Instructor led Open practice Weld Lab)
- 3G Welding Certification Preparatory (MST136) ++ **
- 6G (Pressure Vessel / Nuclear) Welding Certification Exam Preparation
- Engineering Independent Study (ETD204) (Instructor led Open practice Weld Lab)
- 6G Welding Certification Preparatory (MST137) ++ **
- Titanium/Stainless Steel Welding
- Preparatory Gas Tungsten Arc Welding – Titanium / Stainless Steel (MST138) ++
- Gas Tungsten Arc Welding-Titanium/Stainless steel (MST139) **

Civil Engineering Technology

Architectural Drafting

Architectural Drafting I (CET122)
- Architectural Drafting II (CET123)
- Basic AutoCAD (DET125)
- A/E CAD (CET 234)
- Building Materials and Construction Methods (CET121)

Civil/Surveying
- Surveying I (CET227)
- Surveying II (CET228)
- Surveying III (CET229)
- Surveying Graphics (CET221)
- Global Positioning System (CET236)

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Career Enhancement Certificates (continued)

Civil/Surveying Drafting
- Interpreting Construction Documents (CET237)
- Highway and Map Drawing (CET124)
- Basic AutoCAD (DET125)
- Surveying Graphics (CET221)
- Building Materials and Construction Methods (CET121)

Construction Materials Inspection
- Building Materials and Construction Methods (CET121)
- Concrete and Asphalt Testing (CET222)
- Soil Mechanics (CET125)

Construction Technician
- Building Materials and Construction Methods (CET121)
- Interpreting Construction Documents (CET237)
- Construction Management, Job Cost and Safety (CET235)
- Computer Applications for Technical Professionals (ECA122)
- Basic AutoCAD (DET125)

DESIGN ENGINEERING TECHNOLOGY

Advanced CAD
- Basic AutoCAD (DET125)
- Customizing AutoCAD (DET126)
- Advanced AutoCAD (Inventor) (DET230)
- Engineering Drawing (DET121)
- Pro Engineer (DET131)

AutoCAD
- Basic AutoCAD (DET125)
- Customizing AutoCAD (DET126)
- Advanced AutoCAD (Inventor) (DET230)

Precision Gauging and Inspection
- Engineering Drawing (DET121)
- Working Drawings (DET124)
- Basic AutoCAD (DET125)
- Tool Design (DET231)
- Geometric Dimensioning and Tolerancing (DET226)
- Dimensional Metrology and Inspection (IET270)

ELECTRICAL/ELECTRONIC ENGINEERING TECHNOLOGY

Electrical/Electronic Troubleshooting
- College Algebra (MTH125)
- Trigonometry (MTH128)
- DC Circuit Analysis (EET120)
- AC Circuit Analysis (EET122)
- Electronic Devices and Circuits (EET123)

Industrial Controls
- College Algebra (MTH125)
- Trigonometry (MTH128)
- DC Circuit Analysis (EET120)
- AC Circuit Analysis (EET122)
- Electrical Machines (EET126)
- PLCs and Industrial Controls I (EET227)
- PLCs and Industrial Controls II (EET228)

Industrial Electricity and Electronics
- College Algebra (MTH125)
- Trigonometry (MTH128)
- DC Circuit Analysis (EET120)
- AC Circuit Analysis (EET122)
- Electronic Devices and Circuits (EET123)
- Industrial Electronics (EET232)
- National Electric Code (EET128)

Environmental, Health and Safety Technology

Basics of Sustainable/Alternative Energy Technologies (Solar, Wind, Fuel Cell, Biomass)
- Sustainable/Alternative Energy Sources (AET 121)
- Science Energy and the Environment (BIO126)
- Analysis/Applications of Sustainable Alternative Energy (AET1222)
- Electrical Circuits and Devices (EST130)
- College Algebra (MTH125)

Department of Transportation (DOT) Safety Certificate
- DOT HM-126 Training (ENV124)
- Regulations and Compliance (ENV121)

Design Basics for Green Technology
- Sustainable Green Building Technologies (ENV164)
- Building Materials and Construction Methods (CET121)
- College Composition (ENG124)
- Interpreting Construction Documents (CET237)
- Computer Applications/Technical Professionals (ECA122)

Fundamental Building Basics for Green Technology
- Sustainable Green Building Technologies (ENV164)
- Building Materials and Construction Methods (CET121)
- Architechtural Drafting I (CET122)
- Basic AutoCAD (DET1125)
- Computer Applications/Technical Professionals (ECA122)

Green Technology Essentials
- Science Energy and the Environment (BIO126)
- Sustainable Green Building Technologies (ENV164)

OSHA 40-hour HAZWOPER
- OSHA 40-hour HAZWOPER (ENV221)
- Regulations and Compliance (ENV121)

OSHA 10-hour HAZWOPER
- OSHA 10-hour HAZWOPER (ENV123)
- Regulations and Compliance (ENV121)

OSHA HAZWOPER and DOT for Green Technology
- Sustainable Green Building Technologies (ENV164)
- OSHA 40-hour HAZWOPER (ENV221)
- College Composition (ENG124)
- DOT HM-126 Training (ENV124)
- Computer Applications/Technical Professionals (ECA122)

Supervision Basics for Green Technology
- Sustainable Green Building Technologies (ENV164)
- Building Materials and Construction Methods (CET121)
- College Composition (ENG124)
- Industrial Management Concepts (IET121)
- Computer Applications/Technical Professionals (ECA122)

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Water Operations

Water / Wastewater Math and Chemistry (ENV163)
Water/Wastewater – Permits and Administration (ENV129)+
Water Treatment I(ENV136)+
Pumps, Maintenance & Safety (ENV130)+
Technical Elective(s) 1
Water Treatment II (ENV137)+
Water Distribution Systems(ENV138) +
Water Analysis (ENV139)+
Water Certification Examination Preparation(ENV127)

Water/Wastewater Math and Chemistry (ENV163)

Water / Wastewater – Permits and Administration (ENV129) +
Wastewater Treatment I (ENV131)+
Pumps, Maintenance and Safety(ENV130) +
Wastewater Treatment - Industrial (ENV133)+
Wastewater Treatment II (ENV132)+
Wastewater Collection Systems (ENV134)+
Wastewater Analysis (ENV135)+
Wastewater Certification Examination Preparation (128)+

HEATING, VENTILATING AND AIR CONDITIONING TECHNOLOGY

Commercial Refrigeration

Introduction to Algebra (MTH101)
Refrigeration(HVC235)
HVAC Electrical Systems and Applications (HVC234)

HVAC Design and Application Technician

HVAC Design and Application (HVC222)
Advanced HVAC Applications (HVC232)
Refrigeration (HVC235)
Building Materials and Construction(CET121)

HVAC/R Electrical Systems

Introduction to Algebra (MTH101)
HVAC Electrical Systems and Applications (HVC234)
Advanced HVAC Electrical Applications (HVC236)

HVAC Technician (Level I)

HVAC Principles I (HVC121
HVAC Principles II (HVC122)
HVAC Field Installation Techniques and Procedures (HVC227)
HVAC Electrical Systems and Applications (HVAC234)

HVAC Technician (Level II)

Blueprint Reading (MST121)
Pipefitting Principles and Applications (MST126)
HVAC Design and Application (HVC222)
HVAC System Operation and Troubleshooting- Heating (HVC223)
HVAC System Operation and Troubleshooting- Cooling (HVC224)

High Pressure Boiler Operator

High Pressure Steamplant Operation (AIT 128)
Low Pressure Boiler Operator
Low Pressure Steamplant Operations (AIT127)

Steamplant Engineering

Stationary Steamplant Engineering (AIT129)

MECHANICAL ENGINEERING TECHNOLOGY

Fuel Cell

Introduction to Alternative Energy and Fuel Cells (MET229)
Analysis and Applications of Types of Fuel Cells (MET230)
Fuel Cell Systems (MET231)
Fuel Cell Project (MET232

Machine Design

Advanced Strength of Materials (MET221)
Machine Design (MET228)
Technical Project (MET226)

Mechanical Power

Machine Design (MET122)
Fluid Power (MET222)
Electrical Circuits and Devices (EST130)

HEALTH SCIENCES DIVISION

Dental Assisting

Introduction to Dental Terminology and Anatomy (DAS128)
Dental Assisting Techniques I (DAS121)
Dental Assisting Radiography (DAS122)
Dental Assisting Techniques II (DAS123)
Dental Assisting Materials (DAS124)
Optional: Dental Assisting Specialty (DAS125) (Students can pick a dental assisting course option in which to gain specialized skills: Dental Office Management, Community Dentistry, or Clinical Dental Assisting.

Dietary Manager

ServeSafe (DMA121)
Nutrition/Medical Nutrition Therapy (DMA123)
Nutrition/Medical Nutrition Therapy Experience (DMA124)
Management of Foodservice Operations (DMA125)
Management of Foodservice Operations Experience (DMA126)
ServSafe Experience (DMA122)
Human Resource Management (MGT224)
H.R. Management for Dietary Managers Experience (MGT128)

Expanded Functions Dental Auxiliary

Expanded Dental Terminology and Basic Anatomy (DHY128)
Expanded Dental Assisting I (DHY226)
Directed Clinical Practice I (DHY227)
Directed Clinical Practice II (DHY228)

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Career Enhancement Certificates (continued)

INFORMATION TECHNOLGIES DIVISION

COMPUTER NETWORK ADMINISTRATION AND SECURITY TECHNOLOGY

Microsoft Windows 2003 Server
- PC Upgrading and Maintenance (ECA145)
- Introduction to Computer Networking (ECA146)
- Windows XP Professional and 2003 Server (ECA131)
- Windows 2003 Server Network Infrastructure (ECA244)
- Designing Security for Windows 2003 Server (ECA245)
- Directory Services and Exchange Server (ECA246)

Cisco Networking
- PC Upgrading and Maintenance (ECA145)
- Introduction to Computer Networking (ECA146)
- CCNA Phase I (ECA134)
- CCNA Phase II (ECA135)
- Windows 2003 Server Network Infrastructure (ECA244)
- CCNA Phases III and IV (ECA250)
- Firewall and Networking Security (ECA278)

UNIX/LINUX Administration
- Unix/Linux Operating Environment (ECA277)
- Unix/Linux System Administration (ECA274)
- Unix/Linux Network Administration (ECA276)
- Unix/Linux Shell Scripting (ECA254)

COMPUTER PROGRAMMING AND DATABASE TECHNOLOGY

Oracle Database
- Oracle Database: Introduction to SQL (ECA142)
- Oracle Database: PL/SQL Programming Units (CAP141)
- Oracle Database: Architecture and Administration I (ECA270)
- Oracle Database: Architecture and Administration II (ECA271)

Microsoft SQL Server
- Data Modeling and Database Design (ECA253)
- Advanced Microsoft SQL Server Database (ECA269)
- Microsoft SQL Server Database – Business Intelligence (ECA272)
- Microsoft SQL Server Database (ECA139)

COMPUTER SCIENCE AND ENGINEERING TECHNOLOGY

C++ Programming
- C++ Programming (ECA222)
- Advanced C++ Programming (ECA224)
- Assembly Language Programming (ECA227)

C# Programming
- Microsoft Windows Programming with C# (ECA226)
- Active Server Page Development (ECA229)
- Active Server Page Development (ECA296)

Java Programming
- Java Programming (ECA223)
- Java Web Database Programming (ECA230)
- Advanced Java Programming (ECA239)
- Software Engineering for Hand-Held Devices (ECA260)
- Software Engineering for Robotics (ECA261)

Video Game Design
- Game Design (ECA156)
- 3D Graphics Modeling (IMT125)
- 3D Graphics Animation (IMT227)
- Advanced 3D Graphics Modeling (IMT240)
- Advanced 3D Graphics Animation (IMT228)

Video Game Programming
- C++ Programming (ECA222)
- 3D Game Programming (ECA241)
- Advanced Gaming and Simulation Topics (ECA240)
- 2D Game Programming (ECA281)

INTERACTIVE MEDIA TECHNOLOGY

Commercial Music Production
- Theory and Composition (IMT229)
- Music Synthesis (IMT239)
- Sequencing and MIDI Samples (IMT231)
- Music Technology (IMT130)
- Digital Audio Recording and Editing (IMT129)

Interactive Media
- Graphics Arts Design I (IMT122)
- 3D Graphics Modeling (IMT125)
- Flash Animation (ECA155)
- Digital Audio Recording and Editing (IMT129)
- Digital Video Recording and Editing (IMT223)
- Writing for Media (ENG227)

Video Production and Editing
- Digital Audio Recording and Editing (IMT129 - Fall)
- Digital Video Recording and Editing (IMT223 - Fall)
- Compositing (IMT237 - Spring)
- Advanced Video Production (IMT238 - Spring)

3D Modeling and Animation
- 3D Graphics for Modeling (IMT125)
- Graphics for Illustration (IMT253)
- 3D Graphics Animation (IMT227)
- Textures for 2D and 3D Design (IMT249)

Graphics for Design
- Graphic Arts Design II (IMT245)
- Graphics for Illustration (IMT253)
- Color Theory and Design (IMT131)
- Textures for 2D and 3D Design (IMT249)

In an effort to meet the needs of students, courses required in each of the programs are scheduled in sequence to accommodate those attending on a full-time or part-time basis. All students should consult their academic advisors to plan their schedules and course sequence appropriately.

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MANAGEMENT INFORMATION SYSTEMS TECHNOLOGY

Help Desk and Computer User Support

Help Desk Concepts (ECA132)
MCDST: Microsoft Certified Desktop Specialist (ECA133)
Desktop, LAN and WAN Specialist (ECA144)
MCITP: Consumer Support Technician (ECA259)
MCITP: Enterprise Support Technician (ECA263)

Microsoft Applications Professional

Computer Applications for Technical Professionals (ECA122)
MCAS: Advanced Microsoft Office Applications (ECA147)
MCAS: Vista, Outlook and Publisher (ECA294)
MCAP: Developing Cross-Functional Skills (ECA293)

Project Management

MCTS: Managing Projects with Microsoft Project (ECA255)
IT Project Management (ECA264)
Analyzing Software Requirements and Developing Solutions (ECA233)

WEB DESIGN AND DEVELOPMENT TECHNOLOGY

Advanced Webmaster

Microsoft Serve Side Scripting (ECA229)
Open Source Server Side Scripting (ECA236)
Advanced Web Development (ECA234)
Advanced XML and Web Services (ECA247)
Microsoft SQL Server Database (ECA139)

Management Information Systems –MIS

Visual Basic Development (ECA128)
Java Programming (ECA223)
Java Web Database Programming (ECA230)
Analyzing Software Requirements and Developing Solutions (ECA233)
Microsoft Project Tools (ECA255)

Visual Basic Programming

Programming Logic and Problem Solving (ECA127)
Visual Basic Development (ECA128)
Advanced Visual Basic Development (ECA238)
Advanced XML and Web Services (ECA247)

Web Graphics

Web Design (ECA138)
Web Development with Dreamweaver (ECA154)
Flash Animation and Design (ECA155)
Advanced Flash Animation and Design (ECA267)
Web Expression Studio (ECA290)

Web Server

Intro to Computer Networking (ECA146)
PC Upgrading and Maintenance (ECA145)
Unix/Linux Operating Environment (ECA277)
Unix/Linux Network Administration (ECA276)
Web Server Administration (ECA279)
MS Windows Server 2003 Networking and Infrastructure (ECA244)

Webmaster

Internet/Intranet Design and Development (ECA228)
Web Development with JavaScript and AJAX (ECA225)
Web Development with Dreamweaver (ECA154)
Flash Animation and Design (ECA155)
Flash ActionScripting (ECA282)

Cisco CCNA Certification

Microsoft MCAD Certification

Microsoft MCDBA Certification

Microsoft MCSE Certification

Microsoft MCSD Certification

PUBLIC SERVICES DIVISION

HUMAN AND SOCIAL SERVICE

American Sign Language

Introduction to the Deaf Culture and Community (ASL121)
American Sign Language I (ASL122)
American Sign Language II (ASL 124)
Fingerspelling (ASL125)
American Sign Language III (ASL221)

Gerontology

Introduction to Gerontology (GER121)
Psychosocial Aspects of Aging (SWK129)
Select one elective from:
- Estate and Income Tax Planning (FIN224)
- Healthcare Delivery in the U.S. (HIT230)
- Life Span Development (OTA223)
- Human Growth and Development (PSY123)
- Social Services for the Elderly (SWK230)

Select one elective from:
- Anatomy and Physiology II (BIO122)
- Principles of Human Structure and Function (BIO123)
- Human Biology (BIO127)
- Retirement Planning for Employees (FIN222)
- Reimbursement for Health care Services (MAT231)

\+ Web-3 courses are 100% Internet-based training courses
++ Prerequisite of satisfactory welding required prior to course enrollment
** AWS testing available at applicable course completion
*** Prerequisite may be required depending upon placement test score

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The vision for eStarkState is to offer high quality Web-based programs and courses, which increase accessibility of education and technological literacy for a diverse population.

E-learning at Stark State College is a unique alternative to traditional on-campus courses, furthering the College goal of increasing access to higher education. It affords students the opportunity to learn with flexibility of time and place while maintaining access to faculty and other College services.

Classes through eStarkState are offered:

- entirely on the Web,
- through Web-enabled classes that include a blend of both the Web and traditional face-to-face learning, and
- on the Web with a virtual component.

To see Stark State's latest degree, certificate and course offerings: ***www.starkstate.edu/estarkstate***.

To be eligible for online studies, students must have regular access to a computer with an Internet connection. Stark State computer labs are available to students taking online courses. The Stark State Help Desk and Office of Admissions/Student Services staff are available to help students get started. Students must complete the eStarkState orientation prior to beginning their online course.

Not sure if eStarkState is for you?
Take our online survey: ***www.starkstate.edu/estarkstateamiready***
Answering these questions may help with your decision.

Want to experience an online course?
The State of Ohio provides a free non-credit course designed to provide prospective students with an introduction to e-learning.
To sign up: ***www.e4meohio.org/***.

Learn more about e-StarkState: ***www.starkstate.edu/estarkstate***.

eStarkState

The Stark State College Corporate Services and Continuing Education Division provides continuing education, contract training, and certification to the community through:

- continuing education classes, workshops/seminars
- corporate services/training and assessment services
- computer certification tests

Continuing Education Classes, Workshops and Seminars

The Corporate Services and Continuing Education Division offers a full range of continuing education classes, workshops and seminars that can help participants increase their job skills, prepare for a new career, or enrich their personal lives. Most programs are held at the The Hoover District in North Canton.

Continuing education classes are available to meet the mandatory continuing education licensure requirements of professionals in a variety of fields, such as social work, counseling, health care, engineering, and water/wastewater operations. In addition, programs for children are offered during the summer.

Each semester, the College publishes a schedule of continuing education classes. For more information, or to request a schedule, call 330-966-5455 or visit www.starkstate.edu/ce.

Corporate Services/Training and Assessment Services

In addition to continuing education, the Corporate Services and Continuing Education Division offers contract training programs to business, industry, health care facilities and non-profit organizations. Contract training services are convenient, cost-effective and customized to meet the unique needs of individual companies, and are held on campus or at the company location. Our highly qualified instructors and staff will help assess your training needs and design technical and human resource programs to satisfy those needs. A variety of assessments are available to assist incoming students in finding the right program to match their current level of capability.

The Corporate Services and Continuing Education Division also operates an ISO 9001:2008 consortium program that assists companies to become ISO compliant and/or certified. For more information about contract training services, call 330-966-5465.

Corporate Services and Continuing Education Division

Corporate Services and Continuing Education Division

Certificates and Certifications

The Division of Corporate and Community Services awards certificates to students for satisfactory completion of continuing education classes. The College follows national guidelines for continuing education and is a member of the Ohio Continuing Higher Education Association (OCHEA), the National Council for Continuing Education and Training (NCCET) and the Learning Resources Network (LERN). In order to achieve satisfactory completion, students must attend at least 80% of the continuing education classes. In addition, specially-approved, certified contact hours are awarded for courses and disciplines that have specific criteria for continuing education credit.

IT certification exams are available through Stark State's Pearson Vue and Prometric Test Centers. These certifications consist of, but are not limited to, Microsoft, CompTIA, American College, Cisco Systems, EMC, Novell, SAP, Oracle, Siemens Communications, Sun Microsystems and many others. For specific certification information or to schedule an exam, please contact the Pearson Vue/Prometric Test Center in Continuing Education at 330-494-6170, Ext. 4202 or Ext. 4493.

Continuing Education Units (CEUs)

Continuing education units (CEUs) are issued for most continuing education and contract training courses.

The CEU is a national uniform unit of measurement for continuing education programs. One continuing education unit is awarded for 10 contact hours of participation in a continuing education class or organized experience under qualified instruction. The College's Academic Records/Registrar's Office maintains a record for each student who completes a course or program that awards CEUs. The continuing education student must submit a written request to the Academic Records/Registrar's Office to obtain a copy of the official transcript.

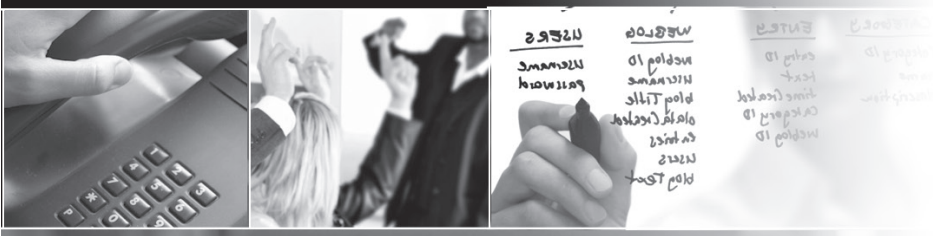
Ohio Peace Officer Law Enforcement Training Academy

Stark State College, in cooperation with the Ohio Peace Officer Training Commission and the Ohio Attorney General's Office, offers the Ohio Peace Officer Certification Training.

This course assists individuals interested in becoming municipal, township, or village police officers; deputy sheriffs; and state wildlife officers, as well as other law enforcement positions. The Stark State College program also fulfills the requirements for sworn officers to be certified.

Our Academy is of the highest caliber with professional staff members averaging over 20 years of law enforcement experience. Additional instructional staff are attorneys from the Prosecutor's Office, criminologists from the Canton-Stark County Crime Lab, and a variety of select personnel from surrounding law enforcement agencies.

Call the Office of Continuing Education at 330-966-5455 for program requirements.



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Course Descriptions

ACC121 PRINC OF ACCOUNTING

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.

Credit hours: 4 *Contact hours: 4*

Co-requisite(s): BUS123

ACC124 INDIVIDUAL TAXATION

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): BUS123

ACC127 QUANTITATIVE BUSINESS STATISTC

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 developing conceptual understanding, statistical thinking, and analyzing data to simulate business applications utilizing these techniques. Upon completion of this course, students should be able to apply these techniques and analyze the results.

Credit hours: 4 *Contact hours: 4*

Co-requisite(s): BUS123

ACC130 BUSINESS LAW AND ETHICS

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.

Credit hours: 3 *Contact hours: 3*

ACC132 FINANCIAL ACCOUNTING

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.

Credit hours: 4 *Contact hours: 4*

Co-requisite(s): BUS123

ACC133 MANAGERIAL ACCOUNTING

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC132

ACC134 INTERNATIONAL LAW

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 understand the sources of international law and its impact on businesses with international transactions.

Credit hours: 3 *Contact hours: 3*

Pre-requisite(s): ACC130

ACC221 INTERMEDIATE ACCT I

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC132

Co-requisite(s): ACC127

ACC222 INTERMEDIATE ACCT II

This is the completion of a two-course sequence in the study of accounting theory. In this semester, students become more involved in the discussion of the intention of management in engaging in certain types of transactions and the impact of alternate methods of reporting in the financial statements. The subject areas studied include long-term debt, intercorporate investments, corporate equity matters, earnings per share, revenue recognition, pensions, leases, cash flow statements, and accounting for income taxes. Some review items include certain analytical ratios and other concepts underlying the preparation of meaningful and complete financial statements. Upon completion of the course, students should be able to demonstrate competence in recognition of important disclosures in financial statements, discuss and evaluate alternative accounting methods and apply generally accepted accounting principles to the preparation of financial statements, including the statement of cash flows.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC221

ACC223 COST ACCOUNTING

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC127 and ACC133

ACC225 AUDITING

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.

Credit hours: 4 *Contact hours: 4*

Co-requisite(s): ACC222

ACC226 ADVANCED ACCOUNTING

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 complete a consolidation worksheet and prepare the necessary supporting schedules related to the statements. Topics also include accounting for partnership formation and liquidation, changes in partners through retirement and/or selling all of a portion of their interest is also studied.

Credit hours: 4 *Contact hours: 4*

Co-requisite(s): ACC222

ACC227 PAYROLL ACCOUNTING

This course is the first course in a two-course sequence in payroll accounting. This course is focused on 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.

Credit hours: 3 *Contact hours: 3*

Pre-requisite(s): ACC121 or ACC132

ACC228 BUSINESS TAXATION

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC132 or ACC122

ACC229 COMPUTERIZED ACCTG APPLICATONS

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.

Credit hours: 3 *Contact hours: 4*

Pre-requisite(s): ACC132 and BCA120

ACC232 GOVT AND NOT-FOR-PRFT ACCT

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).

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC122 or ACC132

ACC233 ADVANCED TAXATION TOPICS

The course expands the concepts of individual and business taxation, estate, trust, and gift taxation and not-for-profit taxation that were covered in Business Taxation. Tax planning for individuals, businesses, estates and trusts and gifting will be emphasized. This course is geared toward the Enrolled Agent Examination, administered by the Internal Revenue Service, and upon completion of this course the student should be prepared to take the test.

Credit hours: 4 *Contact hours: 4*

Co-requisite(s): ACC228

ACC234 ADVANCED PAYROLL

This course is the second course in a two-course sequence on payroll accounting. Emphasis is placed on payroll laws and Federal Acts. Payroll accounting systems are discussed in detail. Additional topics include employee versus independent contractor, special pay situations, self-employment, payment of federal payroll taxes, penalties, taxable fringe benefits, supplemental pay, the gross-up of supplemental pay, and the advanced earned income credit. The completion of Federal, State, and Local Payroll Tax Forms will be reviewed and practiced, including Form 941, W-2, W-3, 1099, 1096, W-4, W-5, State Unemployment, Bureau of Workers Compensation, State Income Tax Withholding. This course is geared to the Fundamental Payroll Certification and upon completion of this course, the student should be prepared to take the Fundamental Payroll Exam, adminstered by the American Payroll Association.

Credit hours: 3 *Contact hours: 3*

Pre-requisite(s): ACC227

ACC235 FORENSIC ACCOUNTING

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.

Credit hours: 3 *Contact hours: 3*

ACC236 CYBER LAW AND ETHICS

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.

Credit hours: 3 *Contact hours: 3*

ACC237 FRAUD EXAMINATION

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC133

ACC238 FINANCIAL STATEMENT ANALYSIS

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 students should be able to analyze financial data and develop strategies for effectively minimizing corporate financial risk.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC133

AET121 SUSTAINABLE/AET SOURCES
This course introduces the student to alternate/sustainable energy sources such as solar, wind power, geothermal, hydroelectric, bioenergy 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; bioenergy topics such as biomass to energy and algae generation of petroleum products and hydrogen gasses; and fuel cell topics such as components (anode, cathode, electrolyte), fuels (hydrogen and hydrocarbons), and types of fuel cells (polymer electrolyte membrane, solid oxide, alkali, phosphoric, molten carbonate).
Credit hours: 3 *Contact hours: 4*

AET122 ANALYSIS/APP OF SET
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AET121

AET123 SUSTAINABLE/ALT ENERGY SYS
This course covers in detail complete sustainable alternative energy systems including service, inspections, and predictive maintenance. This course will address the subsystems and balance of plant systems for the sustainable alterative energy systems. Topics include: safety procedures, interconnect systems, series versus parallel electrical conduction, power conditioning of DC and AC voltages and currents, heat transfer, and interfacing with the power grid.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AET122

AET124 SUSTAINABLE/ALT ENERGY PROJECT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AET123

AIT122 MACHINE TOOLS
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.
Credit hours: 3 *Contact hours: 5*

AIT123 ADVANCED MACHINE TOOLS
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.
Credit hours: 4 *Contact hours: 6*

AIT124 PRINCIPLES OF RIGGING
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.
Credit hours: 2 *Contact hours: 2*

AIT125 COMMERCIAL PLUMBING
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.
Credit hours: 3 *Contact hours: 3*

AIT126 IND ELECL APPLIC AND SAFETY
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.
Credit hours: 2 *Contact hours: 3*

AIT127 LOW PRESSURE STEAMPLANT OPERTS
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 you prepare 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.
Credit hours: 3 *Contact hours: 4*

AIT128 HIGH PRESSURE STEAMPLANT OPERT
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 you prepare 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.
Credit hours: 3 *Contact hours: 4*

AIT129 STATIONARY STEAMPLANT ENGINERG
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.
Credit hours: 3 *Contact hours: 4*

AIT130 STRUCTURAL MAINTENANCE WELDING
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.
Credit hours: 3 *Contact hours: 5*

AIT131 ELECTRICAL APPLICATIONS SFTY
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.
Credit hours: 2 *Contact hours: 2*

AIT132 STATIONARY STEAMPLANT ENGINERG
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.
Credit hours: 6 *Contact hours: 8*
Pre-requisite(s): AIT122

AIT133 ADV ELECRICL APPS AND SFTY
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): AIT131

AIT134 PREDICTIVE MAINTENANCE TECH I
This course is designed to familiarize the student with predictive maintenance technologies in the area of using oil, thermography, vibration, and ultrasonic analyses.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MST221 and MST125

AIT135 INDUSTRIAL ROBOTICS
This course will provide knowledge and skills to set up 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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): IET228

AIT136 ALTERNATE ENERGY SOURCES
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.
Credit hours: 3 *Contact hours: 3*

AIT137 CAD/CAM
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.
Credit hours: 4 *Contact hours: 5*

AIT221 ADVANCED CNC PROGRAMMING
With assigned lab projects, the student will receive an in-depth development of programming skills for machining centers and turning centers. Skills include live-tooling, macro-programming and advanced automatic function programming. Machine, tooling, and workholding selection, coolant management, along with, cycle time reduction practices. Computer Aided Manufacturing (CAM) programming.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IET223

AIT222 PREDICTIVE MAINTENANCE TECH II
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.
Credit hours: 3 *Contact hours: 4*

AIT223 ANALS/APPLIC OF WIND TURB ENGY
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): AIT136

AIT224 WIND TURBINE ENERGY SYSTEMS
This course provides an in-depth understanding of wind turbines including the service and maintenance of these systems.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): AIT223

AIT225 ADVANCED CAD/CAM
This course is designed to advance the student's knowledge of Computer Aided Design/Computer Aided Manufacturing CNC programming software.
Credit hours: 4 *Contact hours: 5*

AOT100 COMPUTER APP-WINDOWS & CONCEPT
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.
Credit hours: 1 *Contact hours: 1*

AOT101 ALPHANUMERIC KEYBOARDING
This course covers the working knowledge and basic skills in alphanumeric touch keyboarding. No prior knowledge of keyboarding is required. Upon completion, students should be able to use the proper techniques for alphanumeric keyboarding.
Credit hours: 1 *Contact hours: 1*

AOT102 COMPUTER APPLICATIONS-WORD
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AOT100 or OAD100 or IDS120

AOT104 COMPUTER APP-POWERPOINT
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AOT100 or OAD100 or IDS120

AOT105 COMPUTER APPL-EXCEL
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AOT100 or OAD100 or IDS120

AOT106 COMPUTER APPL-ACCESS
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AOT100 or OAD100 or IDS120

AOT107 DIGITAL TECHNOLOGIES
This course develops proficiency in using voice recognition software and transcription equipment to produce business documents. This course also introduces newer technologies that have gained acceptance within the workplace including the use of scanners, digital cameras, personal digital assistants and other digital devices. Upon completion, students should possess a working knowledge of voice recognition software, transcription equipment, and other emerging technologies.
Credit hours: 1 *Contact hours: 1*

AOT108 MS OUTLOOK
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.
Credit hours: 1 *Contact hours: 1*

AOT121 KEYBOARDING/FORMATTING
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.
Credit hours: 3 *Contact hours: 4*

AOT127 WP-MICROSOFT WORD
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): BCA120 and AOT121 or OAD121

AOT128 DPT-MICROSOFT PUBLISHER
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): BCA120 and AOT131 or OAD131

AOT129 KEYBOARDING/SKILLBUILDING
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AOT121 or OAD121

AOT130 COMM AND TRANSCRIPT SKILLS
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
Credit hours: 3 *Contact hours: 3*

AOT131 GRAPHIC DESIGN CONCEPTS
This course is an introduction to computer graphic design techniques for electronic publishing. Desktop publishing design concepts will be applied to the creation of effective business documents, forms, and Web sites. Upon completion, the students should be able to design attractive and effective business document layouts.
Credit hours: 3 *Contact hours: 4*

AOT132 RECORDS MANAGEMENT
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.
Credit hours: 3 *Contact hours: 4*

AOT224 LEGAL OFFICE PROCEDURES
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AOT121 or OAD121 and AOT130 or OAD130

AOT226 SHRSHEET MICROSFT EXCEL
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): BCA120

AOT227 ADMIN PROCEDURES AND SYSTEMS
This course places emphasis on an administrative office setting and information systems. Areas covered include keyboarding and composing of various office correspondence, processing mail, dealing with office visitors, maintaining an electronic calendar, making travel arrangements, e-mail, voice mail, fax, copies and telephones. Office problems, practices and procedures are also emphasized. Upon completion, students should be able to demonstrate an understanding of these office procedures and the roll of the administrative assistant in performing these tasks.
Credit hours: 3 *Contact hours: 4*

AOT232 AOT PRACTICUM
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.
Credit hours: 3 *Contact hours: 3*

AOT234 ADMIN INFO SPECIAL TOPICS
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.
Credit hours: 2 *Contact hours: 2*

AOT235 LEGAL RESEARCH AND WRITING
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.
Credit hours: 3 *Contact hours: 4*

AOT236 DB APP MICROSOFT ACCESS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): BCA120 or BCA220

AOT237 LEGAL OFFICE APPLICATIONS

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.

Credit hours: 3 *Contact hours: 4*

Pre-requisite(s): AOT224 or OAD224 and AOT239 or OAD239

AOT238 WEB DESIGN FOR OFFICE PROF

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.

Credit hours: 3 *Contact hours: 4*

Pre-requisite(s): BCA120 and AOT131 or OAD131

AOT239 LEGAL TRANSCRIPTION

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.

Credit hours: 3 *Contact hours: 4*

Pre-requisite(s): AOT129 or OAD129 and AOT130 or OAD130

ARL121 CNC LATHE OPERATIONS

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.

Credit hours: 3 *Contact hours: 4*

ARL122 CNC MILL OPERATIONS

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.

Credit hours: 3 *Contact hours: 4*

ARL123 CNC GRINDING OPERATIONS

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.

Credit hours: 3 *Contact hours: 4*

ARL124 BASIC METROLOGY

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.

Credit hours: 3 *Contact hours: 4*

ARL125 METALLURGICAL INSPECTION

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.

Credit hours: 3 *Contact hours: 4*

ARL126 METALLURGY FOR FERROUS MATL

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.

Credit hours: 3 *Contact hours: 4*

ARL127 INDUSTRIAL MATHEMATICS

his 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.

Credit hours: 3 *Contact hours: 4*

ARL128 PRECISION GRINDING

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.

Credit hours: 3 *Contact hours: 4*

ARL129 FUNDAMENTAL OF CNC OPERATIONS

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.

Credit hours: 3 *Contact hours: 4*

ARL221 IND LAYOUT AND TRIGONOMETRY

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).

Credit hours: 3 *Contact hours: 4*

ARL222 ADVANCED CNC OPERATIONS
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.
Credit hours: 3 *Contact hours: 4*

ARL223 MFG CELL LDSHP AND COMMUNIC
This course is designed to educate the student on the cellular manufacturing concepts and overall plant layout logistics and 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 .
Credit hours: 3 *Contact hours: 4*

ARL224 MASTER CAM OPERATIONS
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.
Credit hours: 3 *Contact hours: 4*

ASD101 STUDENT SUCCESS ARTS SCI SEM
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 successful.
Credit hours: 1 *Contact hours: 2*

ASL121 INTR TO DEAF CULTURE COMMUNTY
This course is designed to provide students with an overview of the Deaf Culture and Community; history of American Sign Language; deafness and its causes, community services available to the deaf community, American with Disabilties Act laws. Five observation hours are required.
Credit hours: 3 *Contact hours: 3*

ASL122 AMERICAN SIGN LANGUAGE I
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.
Credit hours: 3 *Contact hours: 3*

ASL123 INTRODUCTION TO INTERPRETING
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.
Credit hours: 3 *Contact hours: 3*

ASL124 AMERICAN SIGN LANGUAGE II
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ASL122

ASL125 FINGERSPELLING
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.
Credit hours: 2 *Contact hours: 2*

ASL221 AMERICAN SIGN LANGUAGE III
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ASL124

ASL222 AMERICAN SIGN LANG PRAC/SEM
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ASL124

AUT121 AUTOMOTIVE TECH SKILLS
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.
Credit hours: 2 *Contact hours: 3*

AUT122 AUTOMOTIVE SYS AND ENG TEC
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.
Credit hours: 4 *Contact hours: 6*

AUT123 ENG DIAGNOSIS AND MAJ SERV
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. Also covered 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.
Credit hours: 4 *Contact hours: 6*

AUT124 VEHICLE CHASSIS SYSTEMS
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.
Credit hours: 4 *Contact hours: 6*

AUT125 AUTO ELEC'L AND ACCES SYS
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.
Credit hours: 4 *Contact hours: 6*

AUT126 AUTO HVAC SYSTEMS
This course is designed to give students a sound knowledge of the theory and repair of modern automotive heating and air conditioning systems (HVAC). Before taking this course, the student should have a basic knowledge of automotive fundamentals and electrical equipment, and experience with common shop tools and techniques. Topics include: heat transfer, heating and cooling cycles, air flow management and component identification. System diagnosis, servicing, and repair techniques are demonstrated by the instructor, and lab sessions will enable the students to apply these concepts and procedures to vehicles fitted with the various manufacturers' systems. Laboratory exercises will include recovery and recycling operations required for R-12 and R134a. Special emphasis is placed on the safety aspects related to heating and air conditioning service.
Credit hours: 2 *Contact hours: 3*

AUT141 VEHICLE CHASSIS SYSTEMS
This course is designed for Toyota dealership technicians and students that desire to become Toyota dealership technicians. This course is designed to provide the student with a working knowledge of the theory and repair of Toyota steering, suspension, and braking systems. Before taking this course, the student should have a basic knowledge of automotive safety practices and experience with common shop tools and techniques. The instructor will demonstrate Toyota steering, suspension, and braking system inspection and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to Toyota vehicles. Special emphasis is placed on the health and safety aspects related to automotive brake service. Students enrolled in this course will complete 4 hours of out-of-class assignments and answer review questions.
Credit hours: 2 *Contact hours: 2*

AUT142 AUTO ELECT SYS TOYOTA
This course is designed for Toyota dealership technicians and students that desire to become Toyota dealership technicians. The course is designed to provide the student with an understanding of electrical terms, circuit concepts, and diagnostic techniques through the use of classroom instruction and hands-on training. Digital multi-meter usage is stressed. Instruction is given in wiring repair, batteries, starting, and charging systems. This course will emphasize: basic automotive circuit operation, circuit diagnosis, electrical circuit diagnosis, soldering techniques, wire and connector repair, Ohm's Law, circuit value conversions, wiring schematic interpretation, introduction to semi-conductors, and vehicle body circuits.
Credit hours: 2 *Contact hours: 2*

AUT143 AUTO HVAC SYS TOYOTA 750
This course is designed for Toyota dealership technicians and students that desire to become Toyota dealership technicians. This course is designed to provide the student with a sound knowledge of the theory and repair of Toyota heating and air conditioning systems. Before taking this course, the student should have a basic knowledge of automotive and electrical equipment, and experience with common shop tools and techniques. The instructor will demonstrate Toyota HVAC system diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to Toyota vehicles. Special emphasis is placed on the safety aspects related to heating and air conditioning service. The student will complete 2 hours of out-of-class assignments and answer review questions.
Credit hours: 1 *Contact hours: 1*

AUT144 ELECL/ELECC TERMINAL AND CON
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.
Credit hours: 1 *Contact hours: 1*

AUT145 ADV HVAC SYSTEMS DIAG
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.
Credit hours: 1 *Contact hours: 1*

AUT146 ELECC SUSPENSION SYSTEMS
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.
Credit hours: 1 *Contact hours: 1*

AUT147 FOUNDATION BRAKES/ABS SYS SERV
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.
Credit hours: 1 *Contact hours: 1*

AUT148 ENG MECH DIAG AND MEASUREMENT
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.
Credit hours: 2 *Contact hours: 2*

AUT150 GM MOVEABLE ROOF SYSTEMS
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.
Credit hours: 2 *Contact hours: 2*

AUT171 INTRODUCTION TO HONDA PACT

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 with 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.

Credit hours: 1 *Contact hours: 1*

AUT172 HONDA ENGINE MECHANICAL

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.

Credit hours: 2 *Contact hours: 2*

AUT173 HONDA STEERING AND SUSPENSION

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.

Credit hours: 1 *Contact hours: 1*

AUT174 HONDA BRAKING SYSTEMS

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.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121
Co-requisite(s): AUT124

AUT175 HONDA ELECTRICAL SYSTEMS

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.

Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): AUT121
Co-requisite(s): AUT125

AUT176 HONDA HVAC SYSTEMS

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.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121
Co-requisite(s): AUT125

AUT181 INTRO TO CAT LIFT TRUCKS

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 logical manner. Each student will be issued a user name and password to gain access to the CAT Learning Resources Web site which contains computer-based training modules (CBT). This course will introduce students to the basics of fork lift trucks, their operation and an overview of the fork lift industry. Students will receive an introduction to CAT Lift Trucks, its history and the formation of the joint venture with MCFA. Each section ends with a student self-assessment worksheet covering the main topics in that section.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT182 CAT OPERATOR SAFETY TRAINING

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.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT183 CAT SERVICE INFORMATION SYSTEM

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.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT184 CAT HYDRAULIC SYSTEMS

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 includes a brief description of industry standard symbols. The course will cover safety-related tasks before attempting to service the hydraulic system. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self-assessment worksheet to reinforce learning objectives.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT185 CAT INTERNAL COMBUSTION ENGINE

The purpose of this course is to allow the students to build the skills necessary to accurately diagnose and repair CAT lift truck internal combustion engines. The course covers component descriptions, fuel systems used, how 4 cycle engines work, compression ratios, air filters and PCV valves and basic troubleshooting guidelines. Fuel, ignition, and cooling system service and operation are also covered. Major emphasis is placed on in-unit service and repair of CAT (IC) engine systems. The instructor will demonstrate CAT (IC) engine diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a self-assessment worksheet to reinforce learning objectives.

Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): AUT121

AUT186 CAT MASTS AND LIFT MECHANISMS

The purpose of this course is to provide the student with an understanding of the skills and procedures necessary to accurately diagnose and repair masts used on lift trucks. It covers the purpose of the mast as it relates to powered industrial trucks. The student will be able to identify components and explain their function and operation. The course includes basic steps to visually inspect the mast and diagnose and correct problems with the mast assembly. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self-assessment worksheet to reinforce learning objectives.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT187 CAT ELECTRICAL SYSTEMS

The course is designed to provide the student with an understanding of electrical terms, circuits concepts, and diagnostic techniques on CAT lift trucks. Digital multimeter usage is stressed, with the students urged to bring their own meter. Instruction is given in wiring repair with time allotted for supervised practice. Batteries, starting, charging systems, ignition systems, lighting, and safety systems are covered in depth to insure accurate diagnosis and repair of those systems. The course will emphasize: circuit operation, circuit diagnosis, proper equipment usage for electrical circuit diagnosis, proper soldering techniques, wire and connector repair, Ohm's Law, circuit value conversions, and wiring schematic interpretation. The instructor will demonstrate CAT electrical system diagnosis and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks.

Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): AUT121

AUT188 CAT STEERING SYSTEMS

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.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT189 CAT BRAKING SYSTEMS

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.

Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT221 FUEL AND EMISSIONS MGT SYS

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.

Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AUT121

AUT222 ENGINE SYS PER DIAGNOSIS

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.

Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AUT121

AUT223 ADV AUTO ELECTRONICS

This course provides the student with the knowledge and skills required to diagnose, service, and repair body electrical systems. Students will learn how to diagnose problems and will develop skills utilizing proper diagnosis procedures. Skills developed in this course, electric and electronics systems A6, will correlate to the ASE task list. This course is an in-depth lab study of electrical/electronics, electronic information retrieval, circuit protection devices, wiring, circuit operation and diagnosis procedures of controls including, but not limited to, single and multiple contact switches, relays, transistors and computers, will promote equipment usage and personal safety for the more sensitive and complex components presented in AUT227.

Credit hours: 3 *Contact hours: 4*

AUT224 AUTO DIESEL SYSTEMS

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.

Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): AUT121

AUT225 AUTO DRIVETRAIN 1

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: clutches and flywheels, manual transmissions and final drive assemblies. Included in the course is student laboratory experience in identification and diagnosis, dismantling and repair, and reassembly and adjustment of all components used in modern manual transmission systems.

Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AUT121

AUT226 AUTO DRIVETRAIN 2
This course is taught in conjunction with Automotive Drivetrain I (AUT225). 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.
Credit hours: 3 *Contact hours: 4*

AUT227 COMPUTERIZED VEH CONTROL
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AUT121

AUT228 AUTO SERVICE MANAGEMENT
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.
Credit hours: 2 *Contact hours: 3*

AUT229 AUTO MAINTENANCE WELDING
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.
Credit hours: 2 *Contact hours: 4*
Pre-requisite(s): AUT121

AUT230 TECHNICAL PROJECT
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.
Credit hours: 2 *Contact hours: 3*

AUT231 SPECIALIZED ELEC TRAIN
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): AUT125

AUT232 FUEL INJECTION-EFI/PFI
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): AUT223

AUT233 AUTO DIAGNOSTIC APPLIC
Auto diagnostic applications is an advanced-level course that serves as a capstone for the automotive technology program. It is a final assessment of student knowledge and technical skills. Students integrate previously learned principles and concepts with practical field experiences and use specialized diagnostic equipment such as computer scan tools and lab oscilloscopes to evaluate the performance of vehicle systems and components. Under the guidance of an instructor and through an independent study component, students' diagnostic and hands-on skills are further developed and measured while performing component replacement and adjustment procedures to vehicles in a service department setting. The practical application of quality assurance techniques to automotive service work is strongly emphasized. This course also supports and reinforces knowledge required to pass the ASE Automotive Technician Certification examinations.
Credit hours: 2 *Contact hours: 3*

AUT241 BODY CONTROL SYSTEMS
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.
Credit hours: 2 *Contact hours: 2*

AUT242 ENTERTAINMENT SYSTEMS
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.
Credit hours: 2 *Contact hours: 2*

AUT243 GM AIR BAG SYSTEMS
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 includes content on the safe disposal and shipping of inflator modules.
Credit hours: 1 *Contact hours: 1*

AUT244 ALLISON LCT 1000 AUTO TRANS DI
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.
Credit hours: 2 *Contact hours: 2*

AUT245 VIBRATION CORRECTION
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.
Credit hours: 1 *Contact hours: 1*

AUT246 REAR AXLE & PROPELLER SHAFT
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.
Credit hours: 2 *Contact hours: 2*

AUT247 VEH EMISSION, ENHANC TEST DI
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.
Credit hours: 1 *Contact hours: 1*

AUT248 GM POWERTRAIN PERFORMANCE
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.
Credit hours: 2 *Contact hours: 2*

AUT249 DIESEL ENGINE PERFORMANCE
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.
Credit hours: 2 *Contact hours: 2*

AUT250 AUTO TRANSMIS/TRANSAXLE DIAG
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.
Credit hours: 2 *Contact hours: 2*

AUT251 AUTOMOTIVE DRIVETRAINS I
This course is designed for Toyota dealership technicians and students who 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: clutches and flywheels, manual transmissions, final drive assemblies and 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 identification and diagnosis, dismantling and repair, and reassembly and adjustment of all components used in modern manual transmission systems. The instructor will demonstrate Toyota manual transmission diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to Toyota vehicles. The student will be required to complete 2 hours of out-of-class assignments and answer review questions.
Credit hours: 1 *Contact hours: 1*

AUT252 AUTOMOTIVE DRIVETRAINS II
This course is designed for Toyota dealership technicians and students who 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.
Credit hours: 1 *Contact hours: 1*

AUT253 COMPUTERIZED VEHICLE CONTROLS
This course is designed for Toyota dealership technicians and students who desire to become Toyota dealership technicians. The purpose of this course is to provide the student with an understanding of the skills and procedures needed to accurately diagnose and repair Toyota computerized engine control systems. The course text is divided into small modular sections making it easy for the student to absorb and apply the information in a logical manner. Each section ends with a student self-assessment worksheet covering the main topics in that section. The self-assessment worksheets contain theory-based questions and hands-on practice. A skill pretest is imbedded into the first worksheet. This is done to prepare the student for the course and demonstrate to the instructor the skill level of the student. The student will be required to complete 4 hours of out-of-class assignments and answer review questions. There will be two performance tests and a written final test.
Credit hours: 2 *Contact hours: 2*

AUT271 HONDA FUEL AND EMISSION SYSTEM
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.
Credit hours: 1 *Contact hours: 1*
Co-requisite(s): AUT121 and AUT221

AUT273 HONDA ADVANCED DIAGNOSTIC APPS
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).
Credit hours: 1 *Contact hours: 1*
Co-requisite(s): AUT121 and AUT223

AUT275 HONDA MANUAL TRANSMISSIONS
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.
Credit hours: 1 *Contact hours: 1*
Co-requisite(s): AUT121 and AUT225

AUT276 HONDA AUTOMATIC TRANSMISSIONS
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.
Credit hours: 1 *Contact hours: 1*
Co-requisite(s): AUT121 and AUT226

AUT277 HONDA COMPUTERIZED ENGINE
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.
Credit hours: 2 *Contact hours: 2*

AUT281 CAT DIFFRNTILS AND FRONT AXLES
The purpose of this course is to provide the student with an understanding of the skills and procedures necessary to accurately diagnose and repair drive axles and differentials used on lift trucks. The course covers component identification, precision measurements of components, proper setup and adjustment, and functions of these components. The instructor will demonstrate CAT differential and axle diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a description of routine maintenance procedures, troubleshooting guidelines, and a self-assessment worksheet to reinforce learning objectives.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT282 CAT TRANSMISSIONS
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): AUT121

AUT283 CAT FUEL SYSTEMS (LP,GASOLINE)
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-K25, GM4.3L, and TB45 fuel systems. On-unit diagnosis of mechanical and electronic fuel control systems will include the use of traditional fuel diagnostic equipment and CAT-fuel system specialty tools. The importance of safety and proper handling of LP and gasoline fuel system components will be stressed in every segment of this class. The instructor will demonstrate CAT LP and gasoline system diagnosis, servicing, and repair techniques. Hands-on practice will enable the students to apply these concepts and procedures to CAT lift trucks. The course concludes with a self-assessment worksheet to reinforce learning objectives.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): AUT121

AUT321 ACDELCO HVAC SYSTEM DIAGNOSTC
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): AUT121

AUT322 ACDELCO DURAMAXX 6600 DIESEL
This course is intended for experienced engine/driveability 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.
Credit hours: 1 *Contact hours: 2*

AUT323 ACDELCO BRAKING SYSTEMS
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 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.
Credit hours: 1 *Contact hours: 2*

AUT324 ACDELCO GM OBD-II DIAGNOSTIC
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 learning objectives.
Credit hours: 1 *Contact hours: 2*

AUT325 ACDELCO CHRYSLR OBD-II EEC DIA
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 learning objectives.
Credit hours: 1 *Contact hours: 2*

AUT326 ACDELCO FORD-OBD-II EEC DIAGN
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 learning objectives.
Credit hours: 1 *Contact hours: 2*

AUT327 ACDELCO HONDA EMISSION & DRIVE
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 learning objectives.
Credit hours: 1 *Contact hours: 2*

AUT328 ACDELCO ENGINE PERFORMANCE
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.
Credit hours: 1 *Contact hours: 2*

AUT329 ACDELCO BODY CONTROLS & COMMNT
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 presented. This course covers 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.
Credit hours: 1 *Contact hours: 2*

AUT330 ACDELCO GM SUPPLMNTL RESTRNTS
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.
Credit hours: 1 *Contact hours: 2*

AUT331 ACDELCO BATTERY,STRTNG&CHRG SY
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 concentrates 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.
Credit hours: 1 *Contact hours: 2*

AUT332 ACDELCO VIBRATION CONTROL DIAG
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 procedures to current vehicles. The course concludes with a self-assessment worksheet to reinforce learning objectives.
Credit hours: 1 *Contact hours: 2*

AUT333 ACDELCO ADV DRIVABILITY
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, 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 learning objectives.
Credit hours: 1 *Contact hours: 1*

AUT334 ACDELCO ENGINE PERF CMPT CTRLS
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.
Credit hours: 1 *Contact hours: 1*

AUT335 ACDELCO ELECL CIR DIAG AND REP
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 testing and repair tools. Exercises assigned by the instructor are comprised of: desk, case study, on-vehicle, computer simulation and work bench activities.
Credit hours: 1 *Contact hours: 16*

AUT336 ACDELCO EMISSION SYS DIAG
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 concludes with a self-assessment worksheet to reinforce learning objectives.
Credit hours: 1 *Contact hours: 1*

AUT339 ACDELCO ADV REFRIGERANT DIAG

Building upon the technician's knowledge obtained in the related ACDelco HVAC Web courses, this 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, and refrigerant legislation are presented with this course.

Credit hours: 1 *Contact hours: 1*

AUT340 ACDELCO HVAC CNTRLS, OPER DIAG

Building upon the technicans knowledge obtained in the related ACDelco HVAC Web courses, this 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 in this course. Exercises assigned by the instructor are comprised of: desk, bench, case study, on-vehicle, and proper tool usage activities.

Credit hours: 1 *Contact hours: 16*

AUT341 ACDELCO ENG PERF FUEL AND AIR

Building upon the technician's knowledge obtained in the related ACDelco Engine Performance Web courses, this all-makes instructor-led course utilizes 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.

Credit hours: 1 *Contact hours: 1*

AUT421 GM WATERLEAK AND WINDNOISE MGT

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.

Credit hours: 1 *Contact hours: 1*

AUT422 GM DIESEL ENGINE PER CERT ASSM

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.

Credit hours: 1 *Contact hours: 1*

AUT423 GM MANUAL DRVTRAIN AND AXLE

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.

Credit hours: 1 *Contact hours: 1*

AUT424 GM HVAC CERTIFICATION ASSMT

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.

Credit hours: 1 *Contact hours: 1*

AUT425 GM ENGINE PERFORMANCE CERT AST

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.

Credit hours: 1 *Contact hours: 1*

AUT426 GM AUTOTRANSMISSION/TRANSAXLE

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.

Credit hours: 1 *Contact hours: 1*

AUT427 ALT FUELS & ADV AUTO TECH

This course is designed to provide the student with an understanding of alternative automotive fuels and the advanced technologies associated with fuel conversion and hybrid propulsion systems. Technologies addressed in the course will include diesel, compressed natural gas (CNG), liquid petroleum gas (LPG), methanol, ethanol, E-85 (bi-fuel vehicles), hydrogen, solar, electric propulsion, hybrid propulsion, and fuel cells. The description, application, and characteristics of alternative fuels will be covered. The course presents the history, legislation, regulations, safety, and the environmental impact associated with alternative fuels and those anticipated in the near future. Vehicle design and modification as it relates to alternative fuel systems will be studied as well as the storage and distribution of alternative fuels.

Credit hours: 2 *Contact hours: 3*

AUT428 GM ENGINE REPAIR CERT ASSMT

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.

Credit hours: 1 *Contact hours: 1*

AUT429 ELECTRICAL/ELECC CERT ASSMT
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.
Credit hours: 2 *Contact hours: 2*

AUT430 GM STEERNG AND SUSP CERT ASSMT
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.
Credit hours: 1 *Contact hours: 1*

AUT431 GM BRAKES CERTIFICATION ASSMT
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.
Credit hours: 1 *Contact hours: 1*

BCA120 BUSINESS COMPUTER APPLICATIONS
Business Computer Applications is designed to present the essential concepts of Microsoft Office 2007 applicable to today's business world. Areas of concentration include Computer Concepts, Windows, Word, Excel, Access, and PowerPoint. Upon completion, students should be able to demonstrate competency by interfacing with the Windows operating system and to produce electronic presentations, written business documents, electronic spreadsheets and business graphics. TAG approved course - OBU003 effective Spring 2008.
Credit hours: 4 *Contact hours: 4*

BCA220 ADVANCED BUS COMPTER APPLS
Integrated Solutions for Business Problem Solving 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 individiual student's area of study. Upon completion, students should be able to demostrate proficiency in the advanced functions of MS Office.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): BCA120

BIO101 INTRO TO ANAT AND PHYSIO
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.
Credit hours: 3 *Contact hours: 3*

BIO121 ANATOMY AND PHYSIOLOGY I
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): BIO127 or BIO101

BIO122 ANATOMY AND PHYSIOLOGY II
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 and Physiology I with the addition of case study presentations which allow the student to contrast normal physiology with basic pathophysiology.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): BIO121 or BIO123

BIO123 PRIN OF HUM STRUCT AND FUN
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.
Credit hours: 5 *Contact hours: 7*
Pre-requisite(s): BIO101 or BIO121 or BIO127

BIO124 PATHOPHYSIOLOGY
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): BIO122 or BIO123

BIO125 MEDICAL TERMINOLOGY
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.
Credit hours: 3 *Contact hours: 3*

BIO126 SCIENCE, ENERGY AND THE ENV
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.
Credit hours: 4 *Contact hours: 5*

BIO127 HUMAN BIOLOGY
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.
Credit hours: 4 *Contact hours: 6*

BIO141 GENERAL BIOLOGY I
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.
Credit hours: 4 *Contact hours: 6*

BIO142 GENERAL BIOLOGY II
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 results in an acceptable scientific format. TAG approved course - OSC024 - Biology sequence, effective Spring 2008. TAG approved course - OSC004, Biology I, effective Spring 2008.
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): BIO141

BIO221 PRINC OF MICROBIOLOGY
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.
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): BIO122 or BIO123

BIO222 PHARMACOLOGY
A course that introduces the student to general pharmacology, including drug nomenclature, classifications, and therapeutic and side effects on the body systems and functions.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): BIO122 or BIO123

BST120 INTRO TO BIOTECHNOLOGY
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.
Credit hours: 1 *Contact hours: 1*

BST121 BASIC BIOTECHNOLOGY METHODS
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, recordkeeping, etc. Students will be taught to follow standard lab protocols to ensure good lab practices and adherence to basic governmental and safety regulations.
Credit hours: 1 *Contact hours: 2*

BST122 ADVANCED BIOTECHNOLOGY METHODS
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): BST121

BST130 BIOTECHNOLOGY SEMINAR I
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.
Credit hours: 1 *Contact hours: 1*

BST220 MOLECULAR BIOLOGY TECHNIQUES
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).
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): BST122

BST221 CELL AND TISSUE CULTURE
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.
Credit hours: 2 *Contact hours: 4*
Pre-requisite(s): BST122

BST222 CELLULAR AND SUBCELLULAR SEPTN
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.
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): BST122

BST225 BIOTECHNOLOGY INSTRUMENTATION
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): BST122

BST230 BIOTECHNOLGY SEMINAR II
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): BST130

BST240 BIOINFORMATICS
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.
Credit hours: 3 *Contact hours: 5*

BST250 BIOPROCESSES AND MANUFACTURING
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).
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): BST122

BST271 BIOTECHNOLOGY INDEPENDENT STDY
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.
Credit hours: 1 *Contact hours: 3*
Pre-requisite(s): BST220
Co-requisite(s): BST230

BST272 BIOTECHNOLOGY INDEPENDENT STDY
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 upon 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.
Credit hours: 2 *Contact hours: 6*
Pre-requisite(s): BST220
Co-requisite(s): BST230

BST273 BIOTECHNOLOGY INDEPENDENT STDY
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.
Credit hours: 3 *Contact hours: 9*
Pre-requisite(s): BST220
Co-requisite(s): BST230

BST274 BIOTECHNOLOGY INDEPENDENT STDY
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.
Credit hours: 4 *Contact hours: 12*
Pre-requisite(s): BST220
Co-requisite(s): BST230

BST275 BIOTECHNOLOGY INDEPENDENT STDY
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.
Credit hours: 5 *Contact hours: 15*
Pre-requisite(s): BST220
Co-requisite(s): BST230

BST276 BIOTECHNOLOGY INDEPENDENT STDY
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.
Credit hours: 6 *Contact hours: 18*
Pre-requisite(s): BST220
Co-requisite(s): BST230

BST277 BIOTECHNOLOGY INDEPENDENT STDY
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.
Credit hours: 7 *Contact hours: 21*
Pre-requisite(s): BST220
Co-requisite(s): BST230

BTD201 BUS INDEPENDENT STUDY
An independent study may be arranged through the Business and Entrepreneurial Studies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean of Business and Entrepreneurial Studies Division will determine course content, meeting schedules and credit hours.
Credit hours: 1 *Contact hours: 10*

BTD202 BUS INDEPENDENT STUDY
An independent study may be arranged through the Business and Entrepreneurial Studies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean of Business and Entrepreneurial Studies Division will determine course content, meeting schedules and credit hours.
Credit hours: 2 *Contact hours: 20*

BTD203 BUS INDEPENDENT STUDY
An independent study may be arranged through the Business and Entrepreneurial Studies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean of Business and Entrepreneurial Studies Division will determine course content, meeting schedules and credit hours.
Credit hours: 3 *Contact hours: 30*

BTD204 BUS INDEPENDENT STUDY
An independent study may be arranged through the Business and Entrepreneurial Studies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Business and Entrepreneurial Studies Division will determine course content, meeting schedules and credit hours.
Credit hours: 4 *Contact hours: 40*

BTD222 BUSINESS CO-OP
Co-op opportunities are available to students enrolled in business and entrepreneurial studies. Students may contact their faculty advisors or Career Services for more information.
Credit hours: 2 *Contact hours: 20*

BTD223 BUSINESS CO-OP
Co-op opportunities are available to students enrolled in business and entrepreneurial studies. Students may contact their faculty advisors or Career Services for more information.
Credit hours: 3 *Contact hours: 30*

BTD224 BUSINESS CO-OP
Co-op opportunities are available to students enrolled in business and entrepreneurial studies. Students may contact their faculty advisors or Career Services for more information.
Credit hours: 4 *Contact hours: 40*

BTD225 SPECIAL TOPICS
Special topics in Business and Entrepreneurial Studies Division. Repeat registration permitted.
Credit hours: 1 *Contact hours: 1*

BTD226 SPECIAL TOPICS
Special topics in Business and Entrepreneurial Studies Division. Repeat registration permitted.
Credit hours: 2 *Contact hours: 2*

BTD227 SPECIAL TOPICS
Special topics in Business and Entrepreneurial Studies Division. Repeat registration permitted.
Credit hours: 3 *Contact hours: 3*

BTD228 SPECIAL TOPICS
Special topics in Business and Entrepreneurial Studies Division. Repeat registration permitted.
Credit hours: 4 *Contact hours: 4*

BUS101 BUSINESS STDT SUCCESS SEMINAR
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 successful.
Credit hours: 1 *Contact hours: 2*

BUS121 BUSINESS ADMINISTRATION
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): IDS102

BUS122 BASIC ECONOMICS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): IDS102

BUS123 BUSINESS MATHEMATICS
This course is designed to present and facilitate the mastery of many of the mathematical concepts that are necessary for a successful career in today's business environment. These concepts include equations and formulas, payroll, mathematics of buying, markup, markdown, simple interest, notes and bank discounts, compound interest, business and consumer loans, and ordinary annuities. Upon successful completion of this course, the student should be able to apply fundamental math concepts to business problems.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MTH101 or MTH103 or MTH121 or MTH123

BUS221 MICROECONOMICS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): IDS102

BUS222 MACROECONOMICS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): IDS102

BUS223 INTERNATIONAL ECONOMICS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): BUS221 and BUS222

CET121 BLDG MAT AND CON MET
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. TAG approved course - OET016 effective Summer 2008.
Credit hours: 3 *Contact hours: 4*

CET122 ARCHITECTURAL DRAFT I
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.
Credit hours: 3 *Contact hours: 5*

CET123 ARCHITECTURAL DRAFT II
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): CET122
Co-requisite(s): CET121

CET124 HIGHWAY AND MAP DRAWING
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 discussed.
Credit hours: 2 *Contact hours: 4*
Pre-requisite(s): MTH121 or MTH125

CET125 SOIL MECHANICS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MTH121
Co-requisite(s): MET124

CET221 SURVEYING GRAPHICS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CET227 and DET125

CET222 CONCRETE AND ASPHALT TEST
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CET121 and MTH121

CET223 STRUCTURAL DESIGN I
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 be used.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MET124

CET224 STRUCTURAL DESIGN II
Analysis and design of wood members (beams, columns) will be covered in this class. Advanced topics in steel connections and concrete reinforcement of beams, slabs, columns, footings and retailing walls will be studied. Current computer software for structural analysis will be used.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): CET223

CET225 SITE AND BUILDING SERVICE SYS
This course examines hydraulics and hydrology in connection with storm water management, the design of management systems, water supply and waste for buildings, thermodynamics of buildings, HVAC design and lighting design.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CET121 and MTH121

CET226 ESTIMATING
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): CET121 and ECA122 and MTH121

CET227 SURVEYING I
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): MTH121 or MTH125 or MTH125

CET228 SURVEYING II
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 covered. The student is introduced to electronic total stations and data collection. Use of the computer will be emphasized. TAG approved course - OET015 effective Summer 2008.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): CET227

CET229 SURVEYING III
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 experience increased usage of digital levels and automatic data collection along with geodetic survey methods and state plane coordinate systems.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): CET228 and ECA122

CET231 LEGAL PRINC OF SURVEYING
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.
Credit hours: 3 *Contact hours: 3*

CET232 LAND PLANNING AND DESIGN
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): CET122 or CET124 or DET125
Co-requisite(s): CET227

CET233 ARCHITECTURAL DESIGN
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): CET122 and CET123

CET234 A/E CAD
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.
Credit hours: 2 *Contact hours: 4*
Pre-requisite(s): CET121 and CET122 and DET125

CET235 CONSTRUCT MGT,JOB COST AND SAF
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 be familiarized with specifications, shop drawings and computerized project control software.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): CET121 and ECA122

CET236 GLOBAL POSITIONING SYS
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 of surveying and topography mapping is also included.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CET227

CET237 INTERPRETING CONSTRUCTION DOC
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.
Credit hours: 2 *Contact hours: 3*

CET238 TECH PROJECT-CIVIL ENGINEERING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CET223 or CET228

CET239 BUILDING CODE APPLICATION
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): CET121 and CET237 and CET122

CHM101 INTRO TO CHEMISTRY
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MTH101 or MTH103 or MTH121 or MTH123

CHM121 GEN, ORG AND BIOL CHEMISTRY I
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): CHM101

CHM122 GEN, ORG AND BIOL CHEMISTRY II
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): CHM121

CHM141 GENERAL CHEMISTRY I
A 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. TAG approved course - OSC023 and OSC008 effective Summer 2008.
Credit hours: 5 *Contact hours: 7*
Pre-requisite(s): CHM101

CHM142 GENERAL CHEMISTRY II
A broad overview of chemical principles and reactivity. Topics include biochemistry, thermodynamics, chemical equilibrium, acid-based theories, solubility, electrochemistry, and chemical and biochemical kinetics. TAG approved course - OSC024 and OSC009 effective Summer 2008.
Credit hours: 5 *Contact hours: 7*
Pre-requisite(s): CHM141

COM121 EFFECTIVE SPEAKING
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.
Credit hours: 3 *Contact hours: 3*

COM122 INTERPERSONAL COMMUNICATION
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. TAG approved course - OCM002 effective Summer 2008.
Credit hours: 3 *Contact hours: 3*

COM123 INTERGROUP COMMUNICATIONS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

COM125 INTRO TO COMMUNICATION THEORY
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. TAG approved course - OCM001 effective Summer 2008.
Credit hours: 3 *Contact hours: 3*

COM223 INTERVIEWING I
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124 and ENG224

COM224 TECHNCL COMMUNICATNS INTERSHIP
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.
Credit hours: 3 *Contact hours: 3*

CST120 COMPUTATIONAL SCIENCE METHODS
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.
Credit hours: 3 *Contact hours: 3*

CST121 MODELING AND SIMULATION
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.
Credit hours: 3 *Contact hours: 4*

CST221 COMPUTATIONAL BIOLOGY
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): CST121

DAS121 DENTAL ASSISTING TECH I
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.
Credit hours: 3 *Contact hours: 4*

DAS122 DENTAL ASSISTING RADIOGRAPHY
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.
Credit hours: 2 *Contact hours: 3*

DAS123 DENTAL ASSISTING TECH II
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): DAS121

DAS124 DENTAL ASSISTING MATERIALS
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.
Credit hours: 2 *Contact hours: 3*

DAS125 DENTAL ASSISTING SPECIALTY
This course offers the dental assisting student practical experience and knowledge in one of three common specialty areas.
Option A: Clinical Practice - This specialty option provides the student with an opportunity for practical application of dental principles and skills of basic qualified personnel.
Option B: Community Dentistry - This specialty option provides the student with an opportunity for advance knowledge and practice in preventative dental services and public health dentistry.
Option C: Administrative Dental Personnel - This specialty option is designed to provide the student with an opportunity to learn basic administrative and business procedures common in the dental practice.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): DAS123

DET121 ENGINEERING DRAWING
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. TAG approved course - OET016 effective Spring 08.
Credit hours: 3 *Contact hours: 5*

DET122 DESCRIPTIVE GEOMETRY
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): DET121

DET124 WORKING DRAWINGS
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): DET121
Co-requisite(s): DET125

DET125 BASIC AUTOCAD
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. TAG approved course - OET012 effective Summer 2008.
Credit hours: 3 *Contact hours: 5*

DET126 CUSTOMIZING AUTOCAD
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): DET125

DET131 PRO/ENGINEER
This three-dimensional drawing uses Parametric Technology Corporation Pro/ENGINEER software and covers the basics 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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): DET121

DET223 KINEMATICS
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): PHY121

DET226 GEOMETRIC DIM AND TOL
Designed to introduce students to the type of dimensioning that is part of ANSIY14.5M1994 dimensioning standard. General tolerancing methods will be reviewed first, then the geometric characteristics symbols and terms will be discussed. Datums will be defined and modifiers will be identified. The geometric tolerances of form, runout, orientation, profile and location will be analyzed in detail. The GD&T system will then be applied to actual manufacturing drawings. Special attention will be given to the problems that are experienced in industry between design, manufacturing and inspection personnel.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): DET124

DET230 ADVANCED AUTOCAD (INVENTOR)
An introduction to solid modeling using Autodesk's Inventor and the tools and commands to complete fully paramedtric three-dimensional parts, assemblies, presentations, and two-dimensional drawings. The student must have an understanding of computer-aided and mechanical drafting.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): DET125

DET231 TOOL DESIGN
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): DET124 and DET125

DHY121 HEAD, NECK AND ORAL ANATOMY
The course addresses gross anatomy of the head and neck, tooth morpholgy and physiology of occlusion.
Credit hours: 2 *Contact hours: 3*

DHY122 ORAL HIST AND EMBRYOLOGY
Embryological development and histologic characteristics of the orofacial organs and structures is presented.
Credit hours: 1 *Contact hours: 1*

DHY123 DENTAL RADIOGRAPHY
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.
Credit hours: 3 *Contact hours: 5*
Co-requisite(s): DHY121

DHY124 PERIODONTICS I
Explores etiology, diagnosis and prevention of diseases affecting tissues that support, attach and surround the teeth. Observation field experience is required.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): DHY122

DHY125 DENTAL MATERIALS
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): DHY131

DHY126 PATHOLOGY
Diseases of development and growth including neoplasms, diseases of microbial origin, injury and repair, disturbances of metabolism and diseases of specific systems are presented.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): DHY122

DHY127 COMMUNITY ORAL HLTH-RESEACH
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.
Credit hours: 1 *Contact hours: 1*

DHY128 INTRO TO DENTAL TERM AND ANAT
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.
Credit hours: 2 *Contact hours: 2*

DHY131 FUND DENTAL HYGIENE PRAC
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.
Credit hours: 4 *Contact hours: 8*

DHY132 DENTAL HYGIENE THEORY I
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): DHY131
Co-requisite(s): DHY133

DHY133 CLINICAL DENTAL HYG I
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.
Credit hours: 2 *Contact hours: 6*
Pre-requisite(s): DHY131 and DHY123
Co-requisite(s): DHY132

DHY134 CLINICAL DENTAL HYG IA
Supervised clinical patient care experiences which allow further development of clinical skills and application of concepts. Emphasis on patient management and effective communications.
Credit hours: 1 *Contact hours: 3*
Pre-requisite(s): DHY133

DHY221 NUTRITION IN DENTISTRY
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): DHY132

DHY222 DENTAL PHARMACOLOGY
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): BIO221 and DHY126

DHY223 COMMUNITY ORAL HEALTH II
Concepts of assessing, planning, implementing and evaluating oral health programs for community groups are 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.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): DHY127 and DHY134

DHY224 PERIODONTICS II
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): DHY124

DHY225 ANESTHESIA AND PAIN CONTROL
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.
Credit hours: 2 *Contact hours: 4*
Pre-requisite(s): BIO122 and DHY121 and DHY132

DHY226 EXPANDING DENTAL ASSISTING I
This course will cover basic concepts in head, neck and dental anatomy, terminology and basic tooth physiology that supports the restorative dental auxiliary functions.
Credit hours: 1 *Contact hours: 1*

DHY227 EXPANDED DENTAL ASSISTING II
This course will serve to teach competency in the basic restorative procedures allowed to expanded function dental auxiliary incorporating tooth anatomy and function
Credit hours: 2 *Contact hours: 4*

DHY228 DIRECTIVE CLINICAL PRACTICE
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.
Credit hours: 4 *Contact hours: 8*
Pre-requisite(s): DHY226 and DHY227

DHY231 DENTAL HYGIENE THEORY II
Designed to further explore treatment modalities and dental hygiene services such as oral hygiene indices, and tobacco use and cessation education and supplemental care procedures, this course focuses on the development of more dental hygiene treatment plans and working with patients with special needs.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): DHY132
Co-requisite(s): DHY232

DHY232 CLINICAL DENTAL HYG II
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.
Credit hours: 4 *Contact hours: 12*
Pre-requisite(s): DHY134

DHY233 DENTAL HYGIENE THEO III
Further exploration of treatment modalities and adjunct procedures are covered. The course focuses on transitions to practice, including principles of office management, jurisprudence, ethics and current issues in dental hygiene.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): DHY231
Co-requisite(s): DHY234

DHY234 CLINICAL DENTAL HYG III
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.
Credit hours: 5 *Contact hours: 15*
Pre-requisite(s): DHY232

DMA121 SERVSAFE
This course provides 16 instruction hours on food safety training and certification, using the ServSafe program created by the National Restaurant Association Educational Foundation (NRAEF). This comprehensive course includes updates from the FDA Food Code, as well as new science-based and industry best practices relevant to state and local laws. There is a focus on the control of microorganisms, contamination, food allergens, food borne illness, and the safe food handler. ServSafe follows the flow of food from purchasing through service. This course also presents (Hazard Analysis of Critical Control Points) HACCP recipes, procedures and protocols. This course also includes food security, crisis management, and the active managerial program control. A ServSafe Food Protection Manager certificate and Ohio Department of Health ServSafe card is provided to students who pass the NRAEF certification exam.
Credit hours: 1 *Contact hours: 1*

DMA123 NUTRITION MED NUTRITION THER
This course provides foundation knowledge of basic nutrition, plus extensive coverage of medical nutrition therapy. A sampling of the topics covered in this couse include dysphasia, nutritional supplements, trans-fatty acids, medical diets, diabetic meal planning and carbohydrate counting, liberalization of diets in long-term care, Centers for Medicare & Medicaid Services (CMS) regulations, laboratory values and nutrition facts labeling, as well as many other critical care conditions..
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): DMA124

DMA124 NUTRITION MED NUTR THER EXP
This course provides Nutrition and Medical Nutrition Therapy (MNT) experience in an off-campus facility. This experience is intergrated with the academic instruction of DMA 123, directly supervised by a registered Dietician, licensed in the state of Ohio. Students apply the concepts of Medical Nutrition Therapy to practical situations within the dietary management facility.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): DMA123

ECA122 COMPUTER APPL FOR TECH PROF
This course 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, MS-DOS, the Windows networking environment and a variety of software application packages used to solve scientific, business and engineering technology problems. TAG approved course - OBU003 effective Spring 2008.
Credit hours: 3 *Contact hours: 4*

ECA127 PROGRAMMING LOGIC & PROB SOLV
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.
Credit hours: 3 *Contact hours: 4*

ECA128 VISUAL BASIC DEVELOPMENT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127

ECA129 CRYPTOGRAPHY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127 and MTH121 or MTH125

ECA130 SOFTWARE VULNERABILITIES
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127 and EET131 and EET141

ECA131 MS WINDOWS VISTA AND 2003 SRVR
Course includes installing and administering the Windows Vista Professional and Windows 2003 Server Operating Systems. It also covers security issues, disk management, installation troubleshooting, driver rollout, and the delegation or administrative responsibilities via remote desktop procedures.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET131 or ECA145 and EET141 or ECA146

ECA132 HELP DESK AND COMP SUP CONCEPT
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 help desk tools, situations, and user conflicts and resolution.
Credit hours: 3 *Contact hours: 4*

ECA133 MCDST:MICROSFT CERT DSKTP SUP
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.
Credit hours: 3 *Contact hours: 4*

ECA134 CCNA PHASE I
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): EET141 or ECA146

ECA135 CCNA PHASE 2
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.
Credit hours: 2 *Contact hours: 3*
Co-requisite(s): ECA134

ECA136 PRINC OF INFORMATION SECURITY
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.
Credit hours: 3 *Contact hours: 4*

ECA137 COMPUTER CRIME AND INVESTIGATN
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.
Credit hours: 3 *Contact hours: 4*

ECA138 WEB DESIGN GRAPHICS
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.
Credit hours: 3 *Contact hours: 4*

ECA139 MCRSFT SQL SERVER DTBSE DES
This course provides students with the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server. Through a system of lessons and hands-on exercises, students will gain practical experience using Transact-SQL and Data Transformation Services (DTS) to manipulate data;

programming business logic using stored procedures, transactions, triggers, user-defined functions, and views; optimizing database performance by using SQL Profiler and the Index Tuning Wizard; and Managing security--data access, object-level security, and application roles. As students build these real-world database skills, they will also be prepared for the corresponding Microsoft (MCITP) certification exam.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA253

ECA142 ORACLE DTBSE 10g: INTRO TO SQL
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA253

ECA143 PLNG, DESGN & IMPMT IMAGNG SYS
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 students for the CompTIA CDIA+ certification test.
Credit hours: 3 *Contact hours: 4*

ECA144 DESKTOP, LAN AND WAN TECH
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.
Credit hours: 3 *Contact hours: 4*

ECA145 PC UPGRADING AND MAINTENANCE
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.
Credit hours: 3 *Contact hours: 4*

ECA146 INTRO TO COMPUTER NETWORKING
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.
Credit hours: 3 *Contact hours: 4*

ECA147 MCAS:USING MICROFT OFFICE
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA122 or BCA120 or CAP120

ECA148 EXCEL:ANALYZE DATA MAKE DECSN
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA122

ECA149 INTRO TO COMPUTERS
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.
Credit hours: 1 *Contact hours: 1*

ECA150 INFORMATICS
This course studies the concepts, practices and tools underlying the study of Informatics. Topics include, but not limited to: Information representation and infrastructure, Meta date, the Semantic Web, knowledge management, data warehousing, data mining, user interface, analytical tools, careers, industry trends, social, global and organizational impacts, and applications in medical, health, biological, as well as business, industry and education. Upon completion, students will be well versed in the methods of using Excel, Access, and data analysis tools in solving informatics problems. Hands on use of each tool are experienced and combined with directed data analysis, integration, and migration activities. Additional topics include the use of SQL queries on data for transferring, manipulation, and analyzing clinical, medical, biological, and other health related data.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA253

ECA151 ORACLE DATABASE 10G:PL/SQL PR
PL/SQL programming and 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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA253 and ECA142

ECA152 MICRSFT ACCESS:DEV ROBUST APP
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA122

ECA153 INTRO TO THE INTERNET

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.

Credit hours: 1 *Contact hours: 2*

ECA154 WEB DESIGN W DREAMWEAVER

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.

Credit hours: 3 *Contact hours: 4*

Pre-requisite(s): ECA228

ECA155 FLASH ANIMATION AND DESIGN

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.

Credit hours: 3 *Contact hours: 4*

ECA156 GAME DESIGN

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.

Credit hours: 3 *Contact hours: 4*

ECA157 ADOBE ACROBAT

In this course, you will learn how to use Adobe online forms on a website or the intranet. Hands-on labs and exercises will demonstrate how to enhance Acrobat forms by adding some basic JavaScript. Additional topics include the creation of customized job options in Acrobat Distiller, the use of Acrobat Catalog and the creation of interactive forms. Upon completion student will know how to change settings in Acrobat Distiller to produce the best PDF file for your particular application, how to customize PDF files by adding navigation aids, rollover buttons, forms and how to add multimedia elements to produce self-contained interactive documents and presentations.

Credit hours: 3 *Contact hours: 4*

ECA158 WEB DES:ACCESS AND USABITY

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.

Credit hours: 1 *Contact hours: 2*

ECA160 WEB DES: ETHICS-STD GUIDE LAWS

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 World Wide Web.

Credit hours: 1 *Contact hours: 2*

ECA161 WEB DES: MEDIA ELEM-AUDIO, VID

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 World Wide Web.

Credit hours: 1 *Contact hours: 2*

ECA162 MCAS:MICROSOFT OFFICE OUTLOOK

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.

Credit hours: 1 *Contact hours: 2*

ECA163 OPEN OFFICE APPLICATION I

Open Office 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.

Credit hours: 1 *Contact hours: 2*

Pre-requisite(s): ECA122

ECA164 OPEN OFFICE APPLICATION II

A continuation of the study and utilization of the Open Office applications. This course will introduce the student to advanced topics and utilization of Writer, Calc, Impress, Draw with introduction to Base; the Open Office database application

Credit hours: 1 *Contact hours: 2*

Pre-requisite(s): ECA163

ECA165 MCAS:MICROSFT OFFICE PUBLISHER

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.

Credit hours: 1 *Contact hours: 2*

ECA166 MCTS: MICROSFT WINDOWS MOBILE

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 networks and network connectivity, especially with regard to messaging services.

Credit hours: 1 *Contact hours: 2*

ECA167 MCAS: MICROSOFT VISIO

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.
Credit hours: 1 *Contact hours: 2*

ECA168 MCAS: MICROSOFT VISTA
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.
Credit hours: 1 *Contact hours: 2*

ECA169 MCAS: USING MICROSFT GROOVE
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.
Credit hours: 1 *Contact hours: 2*

ECA170 MCAS: MICROSOFT WORD
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.
Credit hours: 1 *Contact hours: 2*

ECA171 MCAS: MICROSOFT EXCEL
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.
Credit hours: 1 *Contact hours: 2*

ECA172 MCAS: MICROSOFT POWERPOINT
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.
Credit hours: 1 *Contact hours: 2*

ECA173 MCAS: MICROSOFT ACCESS
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 Certified Application Specialist Certification.
Credit hours: 1 *Contact hours: 2*

ECA174 THE INFO AGE-SOCIAL NTWRKG
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.
Credit hours: 1 *Contact hours: 2*

ECA175 WHITE COLLAR CRIME
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.
Credit hours: 3 *Contact hours: 4*

ECA176 ONLINE INVESTIGATIVE RESOURCES
This course will provide the student with knowledge, techniques and tools to gather information from various online resources that are available in the public domain that can assist in the process of conducting various types of investigations.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA137

ECA222 C++ PROGRAMMING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127

ECA223 JAVA PROGRAMMING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127

ECA224 ADVANCED C++ PROGRAMMING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA222

ECA225 WEB DEV W JAVASCRIPT AJAX
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA228

ECA226 WINDOWS PROGRAMMING WITH C#
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127

ECA227 ASSEMBLY LANGUAGE PROG
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA222 or ECA223

ECA228 INTERNET/INTRANET DES & DEV
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.
Credit hours: 3 *Contact hours: 4*

ECA229 MICROSOFT SERVER SIDE SCRIPTNG
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA228 and ECA127

ECA230 JAVA WEB DATABASE PROGRAMMING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA223

ECA233 ANLYZNG SFTWRE REQ AND DEV SOL
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): ECA224 or ECA230 or ECA239 or ECA128 or ECA229 or ECA236 or ECA247

ECA234 ADVANCED CASADING STYLE SHEETS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA228

ECA235 SECURNG NTWK SWITCHERS ROUTER
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.
Credit hours: 3 *Contact hours: 6*
Pre-requisite(s): ECA135 and ECA249

ECA236 WEB DEV WITH PHP ND MYSQL
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA228

ECA238 ADV VISUAL BASIC DEV
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA128

ECA239 ADVANCED JAVA PROGRAMMING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA223

ECA240 ADV GAMING AND SIMULATN TOPICS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA281

ECA241 3D GAME DESIGN AND DEV
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA222

ECA244 MS WINDOWS SERVER 2003 NTWK IN
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET131 or ECA145 and EET141 or ECA146

ECA245 DES SEC FOR WIN 2003 NETWORK
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA244 or ECA251 or EET252

ECA246 ADM, IMPL AND DES DIRECTRY SRV
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA244 or ECA251 or EET252

ECA247 ADVANCE XML AND WEB SERVICES
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA229

ECA250 CCNA PHASES 3 AND 4
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): ECA135 or ECA249

ECA252 DATA MINING AND DATA WARHOUSNG
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA253

ECA253 DATA MODELING AND DATABSE DSGN
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA122

ECA254 UNIX/LINUX SHELL SCRIPTING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET257 or ECA277

ECA255 MCTS:MANG PROJS W MICRSFT PROJ
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA122

ECA256 DISASTR RCVRY AND INCIDENT PLN
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA136

ECA257 FILE SYSTEMS ANALYSIS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA137 or EET260

ECA258 CYBER FORENSCS AND DATA RECVRY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA257

ECA259 MCITP:CONSUMER SUPPORT TECH
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA133

ECA260 SFTWRE ENG FOR HAND-HELD DEVIC
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA223

ECA261 SFTWRE ENGINEERING FOR ROBOTIC
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA223

ECA263 MCITP: ENTERPRISE SUPP TECH
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA133

ECA264 IT PROJECT MANAGEMENT
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 scheduler, spreadsheets, and databases. This course helps prepare students for the Comp TIA IT Project+ certification test.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA255

ECA265 GENRTNG RPRTS FOR DECSN MKG
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA253

ECA266 SEARCH ENGINE OPTIMIZATION
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA228

ECA267 ADV FLASH ANIMATION AND DES
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA155

ECA268 ADV WEB DEV W PHP AND MYSQL
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA236

ECA269 ADV MICROSFT SQL SRVC DTBSE
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA139

ECA270 ORACLE DTBASE 10G:ARCH AND ADM
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA151

ECA272 MICROSFT SQL SERVR DTBSE-BUS
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 certification for business intelligence system designers and developers.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA139

ECA273 MS SQL SERVER ADMIN
This course is designed to provide the student with the concepts and hands-on experience with Microsoft SQL Server databases. The primary focus is on learning SQL server from the Databse Administration perspective. Upon completion, the student will have attained at least a basic administration skill level with SQL Server database.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET252 or ECA131 or EET251

ECA274 UNIX/LINUX SYSTEM ADMIN
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 filesystems to their system, etc.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET257 or ECA277

ECA275 ETHICAL HACKING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA145 and ECA146

ECA276 UNIX/LINUX NETWORK ADMIN
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET257 or ECA277

ECA277 UNIX/LINUX OPERATING ENVIR
This course covers working at the Unix/Linux shell command line, customizing the shell environment, understanding basic file system 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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127

ECA278 FIREWALL AND NETWRK SECURITY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA135 or ECA249 or ECA127

ECA279 WEB SERVER ADMINISTRATION
This course covers the installation and configuration of the Apache Web server and the server handware that supports it. Demonstrations and hands-on practice will reinforce topics such as virtual hosts, authentication, virtual domains, CGI, PHP, and SSL. Upon completion, students will be able to administer the hardware and operating environment of Web servers.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET250 or EET251 or ECA274 or ECA276

ECA280 ADVANCED INFORMATICS
This course introduces programming language modules in the analysis of informatics and bioinformatics data, including downloading, installing and configuring these applications in a Windows environment. Using these language modules, this course will show the student how to retrieve, analyze and manipulate genomic/proteomics sequences from databases such as GenBank and GenPept, RefSeq, SWISSPROT, and EMBL. It will show how to use these language modules to convert between and from various file formats including FASTA, SWISSPROT, and EMBL. It includes extracting annotations/ features from sequence files, performing similar sequence searches and using sequence alignments. Upon completion, students will know how to use various programming environment to solve programming problems such as creating, modifying, comparing and deleting biological data files, searching for motifs in these data files, manipulating sequences found in these data files.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA150

ECA281 2D GAME DESIGN AND DEVELP
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA222

ECA282 FLASH ACTIONSCRIPTING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA155

ECA284 VOICE OVER IP FUNDAMENTALS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA135 or ECA249

ECA285 CISCO IP TELEPHONY
This course will introduce students to Cisco CallManager software for configuring IP phones. Demonstrations and hands-on practice will reinforce topics including route plans, router filters, voice gateways, hunt groups, and other IP phone services. Upon completion, students will be able to configure IP telephones, gateways through a call agent.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA135 or ECA249

ECA286 UNIX/LINUX FORENSICS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA277

ECA287 DEV CUSTOM CNTRLS FOR .NET
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA229 and ECA226

ECA288 MICROSOFT ADO DEVELOPMENT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127

ECA289 MICROSFT PRESENTATN FNDTNS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA128

ECA290 MICRSOFT EXPRESSION STUDIO
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 Web site using a Dynamic Web Template.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA228

ECA291 PYTHON DEVELOPMENT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127

ECA292 INFORMATION TECH CAPSTONE
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.
Credit hours: 3 *Contact hours: 4*

ECA293 MCAP:DEV CROSS FUNC SKILLS
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.
Credit hours: 3 *Contact hours: 4*

ECA294 MCAS:VISTA, OUTLOOK AND PUBLSH
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA122

ECA296 ADV ACTIVE SVR PAGE DEV
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
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA229

ECA297 MICROSOFT SHAREPOINT DEVELOP
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ENG127

ECA298 MICROSOFT SILVERLIGHT DEV
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.
Credit hours: 3 *Contact hours: 4*

ECA299 NETWORK MANAGEMENT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA135

ECA300 DIGITAL MEDIA FORENSICS
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.
Credit hours: 3 *Contact hours: 4*

ECA301 ADV DIGITAL MEDIA FORENSICS
The student will learn advanced techniques to gather date from digital devices focusing on data maintained in system memory and recovery of this data using live acquisition tools and techniques.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA258

EDU121 INTRO EARLY CHILDHOOD EDUC
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG101 or ENG105 or ENG124

EDU122 CURRICULUM DESIGN AND INS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): EDU121 or ECE121

EDU123 HEALTH AND NUTRITION
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.
Credit hours: 3 *Contact hours: 3*

EDU124 INFANT TODDLER CURRICULUM
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): PSY125

EDU125 CHLDRN W PHYSICAL DISABILTIES
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.
Credit hours: 3 *Contact hours: 3*

EDU126 EDUCATIONAL TECHNOLOGY
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.
Credit hours: 3 *Contact hours: 3*

EDU221 LANGUAGE ARTS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): EDU122 or ECE122

EDU222 CREATIVE MAT/GUIDE PLAY
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): EDU122 or ECE122

EDU223 COMMUNITY & FAM BASED PR
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): EDU121 or ECE121

EDU224 EARLY CHILDHOOD PROG ADM
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): EDU121 or ECE121

EDU225 THE EXCEPTIONAL CHILD
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): EDU221 and EDU222 or ECE221 or ECE222

EDU226 WRAP-AROUND PROGRAMS
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): EDU121 or ECE121

EDU227 EARLY CHLD ED TECH PRACTICUM
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): EDU222 or ECE222

EDU228 PHONICS FOR YOUNG CHILDREN
Explores the theory and role of phonics and phonemics awareness as well as current research regarding phonics instruction. Five observation hours are required.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): EDU221 or ECE221

EDU229 EDUCTIONAL PSYCHOLOGY
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.
Credit hours: 3 *Contact hours: 3*

EDU230 CHILDN W SOCIOEMOTINAL EXCEPT
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.
Credit hours: 3 *Contact hours: 3*

EET120 DC CIRCUIT ANALYSIS
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.
Credit hours: 4 *Contact hours: 5*
Co-requisite(s): MTH121 or MTH125 or MTH128

EET122 AC CIRCUIT ANALYSIS
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): EET120

EET123 ELECTRONC DEVICES AND CIRCUITS
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. TAG approved course - OET005 effective Spring 2008.
Credit hours: 4 *Contact hours: 5*
Co-requisite(s): EET122

EET125 CIRCUITS MANUFAC TECHNIQUES
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.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): EET120

EET126 ELECTRICAL MACHINES
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.
Credit hours: 4 *Contact hours: 5*
Co-requisite(s): EET122

EET128 NEC AND ELECTRICAL SYS DES
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): EET122

EET129 OPTICS
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): PHY121 or PHY122

EET142 LGHT DES, APP AND ELECL ELEM I
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.
Credit hours: 2 *Contact hours: 4*

EET143 LGHT DES, APP AND ELEC ELEM II
This course complements Lighting Design, Application and Electrical Elements I. Topics included are advanced lighting design techniques, including hands-on computer studies and in-depth application workshops within the following areas: industrial lighting, exterior lighting, office and educational facility lighting, public building lighting, merchandise and store lighting, along with special applications such as houses of worship, museums, and recreational areas. Also included are sessions on visual performance, in-depth color evaluation, psychological effects of lighting, lighting for improving productivity, safety and security lighting, lighting economics, and energy-saving techniques, calculations, and evaluations, with guidelines for ASHRAE 90. 1-2001.
Credit hours: 3 *Contact hours: 3*

EET225 DIGITAL COMM AND SYS ANALY
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). TAG approved course - OET004 effective Spring 2008.
Credit hours: 3 *Contact hours: 6*
Pre-requisite(s): EET248
Co-requisite(s): EET262

EET226 TRANSMISSION AND DISTRIBUTION
This course encompasses power transmissions and distribution systems, components and analysis. Field trips to appropriate sites comprise the laboratory requirement.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET122

EET227 PLCS AND INDUSTRIAL CONTROLS I
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET120 or EST130

EET228 PLCS AND INDUSTRL CONTROLS II
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET227

EET230 ELECTRONIC CIRCUITS I
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): EET123

EET231 ELECTRONIC CIRCUITS II
A study of power amplifier design, heat sinking, differential amplifiers, operational amplifiers, IC fundamentals, feedback and oscillator circuits. TAG approved course - OET005 effective Spring 2008.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET230

EET232 INDUSTRIAL ELECTRONICS
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. TAG approved course - OET005 effective Spring 2008.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): EET123

EET233 TECH PROJECT ELECTRICAL
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.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): EET123 and EET227

EET235 TECH PROJECT ELECTRONIC
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.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): EET125 and EET230 and EET248

EET244 ELECC TELECOMMUNICATIONS
A course dealing with telecommunications hardware and software. Laboratory exercises address both hardware and software applications.
Credit hours: 3 *Contact hours: 4*

EET245 TECH PROJ-ELECC TELECOM
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.
Credit hours: 3 *Contact hours: 5*

EET246 TECH PROJ - COMP NETWKG
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.
Credit hours: 3 *Contact hours: 5*

EET248 WORKSTATION INTERFACING
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): ECA128
Co-requisite(s): EET262

EET260 COMPUTER FORENSICS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA127 or CAP121 and EET131

EET261 ADVCD NETWKG AND SECURTY TPC
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): ECA129 and ECA130 and EET131 and EET141

EET262 PULSE AND DIGITL INTEGRATD CIR
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): ECA128 or ECA222

EMS121 BASIC MEDICAL TRAINING (EMT)
The EMT-Basic course provides theory and practical skills training for managing medical and traumatic situations and follows the objectives as listed in the Ohio Administrative Code. Basic Life Support certification is included. Observation time at an Emergency Facility or EMS Squad is required.
Credit hours: 5 *Contact hours: 8*

EMS122 PARAMEDIC I/SEMINAR
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.
Credit hours: 10 *Contact hours: 20*
Pre-requisite(s): BIO101

EMS123 FIRST RESPONDER
This course provides theory and skills at the First Responder level for managing emergencies including techniques of CPR, use of the AED, airway skills, trauma stabilization, medical care, and EMS operations. It also prepares the student to take the state of Ohio certification exam for First Responder.
Credit hours: 3 *Contact hours: 3*

EMS221 PARAMEDIC II/SEMINAR
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.
Credit hours: 10 *Contact hours: 20*

EMS222 PARAMEDIC III/SEMINAR
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.
Credit hours: 4 *Contact hours: 6*

ENG100 COLLEGE WRITING I
This introductory writing course emphasizes narrative writing, including generating ideas, flow, and logic. Foundational grammar based on sentence construction is stressed.
Credit hours: 5 *Contact hours: 5*

ENG103 COLLEGE WRITING II
This writing course focuses on paragraph development and introduces short essays emphasizing the writing process of drafting, revising, and editing. Narrative writing is stressed.
Credit hours: 5 *Contact hours: 5*
Pre-requisite(s): ENG100 or CAL102

ENG105 COLLEGE WRITING III
This writing course emphasizes essay development using rhetorical modes while applying rules of grammar and mechanics.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG103 or CAL105

ENG124 COLLEGE COMPOSITION
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG101 or ENG105

ENG125 TECHNICAL EDITING AND LAYOUT
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124 and ENG224

ENG126 TECHNICAL GRAMMAR AND STYLE
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124 and ENG224

ENG221 TECHNICAL REPORT WRITING
This course stresses clarity, logic and appropriate organization in informal and formal technical reports. An oral presentation/proposal may be required.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

ENG222 MED TECH REPORT WRITING
Health information technology students develop skills in various kinds of technical communications used in their work, such as letters, memos, instructions, short reports, abstracts, summaries and a proposal based on research into a medical topic.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124
Co-requisite(s): HIT223

ENG224 COMPOSITION AND LITERATURE
Includes literary selections from fiction, poetry, and drama. Students read, discuss, analyze and write critical interpretations of representative works.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

ENG227 WRITING FOR MEDIA
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

ENG228 WRITING FOR THE WEB
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124 and ENG224

ENG229 GRANT WRITING
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124 and ENG224

ENG230 BUSINESS COMMUNICATION
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. TAG approved course - OBU005 effective Summer 2007
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

ENG231 COLLEGE COMPOSITION II
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

ENG232 SCRIPTWRITING
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.
Credit hours: 3 *Contact hours: 3*

ENG233 BRITISH LITERATURE I
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

ENG234 BRITISH LITERATURE II
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

ENT120 ENTREPRENEURSHIP
This course is designed to introduce students to the entrepreneurial process from conception to birth of a new venture. Students will examine elements in the entrepreneurial process – personal, sociological, and environmental – that give birth to a new enterprise. Critical factors for starting a new enterprise such as alternative career prospects, family, friends, role models, the state of the economy and the availability of resources will be explored. Students will be introduced to practical tools they can use to further their careers in business, both in entrepreneurship and in more traditional company environments. This course simulates the experiences that entrepreneurs undergo in conceiving, launching, and operating new businesses. The course enables students to evaluate an entrepreneurial career for themselves. In doing so, it provides want-to-be entrepreneurs with a framework for selecting, funding, and starting their own new ventures.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): IDS102 or ENG102 or IDS102 or IDS102 or IDS102

ENT121 ENTREPRENEURIAL MARKETING

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.

Credit hours: 3 *Contact hours: 3*

Pre-requisite(s): ENT120

ENT221 ENTREPRENEURIAL FINANCE

This course will provide the student with an understanding of the financing of entrepreneurial ventures in terms of payback and break even analysis. Risk management, forecasting, pro forma financial statements and working capital management are all issues explored in this course.

Credit hours: 3 *Contact hours: 3*

Pre-requisite(s): ENT120

ENT222 NEW VENTURE CREATION

This course builds on the entrepreneurship class and the finance class. New venture exploration will take place as the student researches their idea and develops a working business plan.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): ENT221

ENT223 ENTREPRENEURSHIP PRACTICUM

This is the capstone experience where the student puts their business plan intro practice. The student will work with mentors to start to apply their entrepreneurial knowledge to real life situations. This course is based on the concept of balanced mentorship, which benefits both the student and the entrepreneur mentor. Students will be assigned to a start up firm in our Center for Entrepreneurial Studies to apply classroom knowledge to an actual work situation.

Credit hours: 2 *Contact hours: 4*

Pre-requisite(s): ENT222

ENV121 REGULATIONS AND COMPLIANCE

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.

Credit hours: 3 *Contact hours: 3*

ENV123 OSHA 10-HOUR SAFETY ORIENTATN

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.

Credit hours: 1 *Contact hours: 1*

ENV124 TRANSP HAZARD MTL TRNG

This course is designed to familiarize the student with Department of Transportation Pipeline and Hazardous Safety Administration (DOT PHMSA) Hazardous Materials Regulations (HMR). The student learns how to properly complete shipping papers, label & mark hazardous material packages and how to placard highway and rail vehicles plus air and vessel containers. The student completes exercises using the Hazardous Materials Table (HMT) and the Emergency Response Guidebook (ERG). Hazardous materials transportation regulations are accessed online. Students successfully passing a written test in accordance with DOT PHMSA regulations will receive a DOT PHMSA Hazardous Materials Initial Training Certificate.

Credit hours: 1 *Contact hours: 1*

ENV125 INTR HAZRDS MTRLS AND WSTE MGT

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.

Credit hours: 1 *Contact hours: 1*

ENV126 HAZWOPER-MODERATE RISK

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.

Credit hours: 2 *Contact hours: 2*

ENV127 WATER CERTIFICATION EXAM PREP2

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.

Credit hours: 2 *Contact hours: 2*

ENV128 WASTEWATER CERTIFICTN EXAM PRE

In this course students will review materials that may appear on the Operator Certification Examination administered by the Ohio EPA for Class I, II and III Wastewater Operators. Students will meet with an instructor twice a week for 2 hours each meeting over an eight week period to review material that might appear on the certification examination prior to administration of the certification examinations.

Credit hours: 2 *Contact hours: 2*

ENV129 WATER/WASTEWATER-PERMITS & ADMIN

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.

Credit hours: 1 *Contact hours: 1*

ENV130 WATER/WASTEWATER-PUMPS, MAINT

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.

Credit hours: 3 *Contact hours: 3*

ENV131 WASTEWATER TREATMENT I

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.

Credit hours: 4 *Contact hours: 4*

ENV132 WASTEWATER TREATMENT II
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.
Credit hours: 4 *Contact hours: 4*

ENV133 WASTEWATER TREATMENT-INDUSTRL
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.
Credit hours: 4 *Contact hours: 4*

ENV134 WASTEWATER COLLECTION SYSTEMS
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.
Credit hours: 4 *Contact hours: 4*

ENV135 WASTEWATER ANALYSIS
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.
Credit hours: 3 *Contact hours: 3*

ENV136 WATER TREATMENT I
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.
Credit hours: 4 *Contact hours: 4*

ENV137 WATER TREATMENT II
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.
Credit hours: 4 *Contact hours: 4*

ENV138 WATER DISTRIBUTION SYSTEMS
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.
Credit hours: 4 *Contact hours: 4*

ENV139 WATER ANALYSIS
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.
Credit hours: 3 *Contact hours: 3*

ENV140 BASIC WATER TRTMT-COAG/FLOC
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.
Credit hours: 1 *Contact hours: 1*

ENV141 BASIC WATER TRMT-DISINFECTN
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.
Credit hours: 1 *Contact hours: 1*

ENV142 BASIC WATER TRMT-FILTRATION
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.
Credit hours: 1 *Contact hours: 1*

ENV143 BASIC WATER TRMT-FLUORIDATION
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.
Credit hours: 1 *Contact hours: 1*

ENV144 BASIC WATER TRMT-IRON & MANG
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.
Credit hours: 1 *Contact hours: 1*

ENV145 BASIC WATER TREATMENT-QUALITY
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.
Credit hours: 1 *Contact hours: 1*

ENV146 BASIC WATER TRTMNT-SEDIMTATION
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.
Credit hours: 1 *Contact hours: 1*

ENV147 BASC WATR TREATMNT-WATER SOURC
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.
Credit hours: 1 *Contact hours: 1*

ENV148 WATER DISTRTN SYS-DISTRIB FAC
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.
Credit hours: 1 *Contact hours: 1*

ENV149 WATR DISTBTN SYS-STORAGE SYS
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.
Credit hours: 1 *Contact hours: 1*

ENV150 WATR DISTRBN SYS-SYS DISINFCTN
Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of water disinfection systems. Along with reading assignments from the text, the coures is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% Web-based course.
Credit hours: 1 *Contact hours: 1*

ENV151 WTR DISTBN SYS-SYSTEM O M
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.
Credit hours: 1 *Contact hours: 1*

ENV152 WTR DISTRIBUTION SYS-SYS SAFEY
Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of safety issues confronting water distribution systems. Along with reading assignments from the test, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links.
Credit hours: 1 *Contact hours: 1*

ENV153 WTR DISTRBN SYS-VALVES,MAIN ME
Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topics of this course are that of proper maintenance operations of the values, and meters found in water distribution systems. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% Web-based course.
Credit hours: 1 *Contact hours: 1*

ENV154 WATER DISTRIBTN SYS-WATR MAINS
Using the internet, students will obtain a working knowledge of potable water distribution systems. The specific topic of this course is that of water mains for distribution systems. Along with reading assignments from the text, the course in enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% Web-based course.
Credit hours: 1 *Contact hours: 1*

ENV155 WATER DISTRIBTN SYS-WATR QUALT
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.
Credit hours: 1 *Contact hours: 1*

ENV156 WASTEWATER TRTMT-DISINF CHLORN
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.
Credit hours: 1 *Contact hours: 1*

ENV157 WASTEWATER TRTMT-FIXED FILM PR
Using the internet, students will explore the rudiments of wasterwater treatment. The topics of this course include general issues regarding the trickling filter process when treating wastewater. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. This is a 100% Web-based course.
Credit hours: 1 *Contact hours: 1*

ENV158 WASTEWATER TRTMT-PLLUTN CONTRL
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.
Credit hours: 1 *Contact hours: 1*

ENV159 WASTEWATER TRTMNT-POND SYSTMS
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.
Credit hours: 1 *Contact hours: 1*

ENV160 WASTEWATER TRTMT-PRELIMY TRTMT
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.
Credit hours: 1 *Contact hours: 1*

ENV161 WASTEWATER TRTMT-PRIMARY TRTMT
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.
Credit hours: 1 *Contact hours: 1*

ENV162 WASTEWATER TRTMT-SUSP GRTH SYS
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.
Credit hours: 1 *Contact hours: 1*

ENV163 WATER/WASTEWATER MATH CHEM
In this course, students will be introduced to math and chemistry concepts used in water and/or wastewater plant 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 two 2-hour classes each week for 8 weeks.
Credit hours: 2 *Contact hours: 2*

ENV164 SUSTAINABLE GR BLD TECH
This is an introductory course providing information on how Green Building Technologies improve the environment through proper site development considerations-including brownfield site remediations strategies, storm water run-off management, renewable energy sources, and managing water efficiency in buildings. Improving energy efficiencies through passive solar heating and cooling methods are emphasized. Selecting building materials made from rapidly renewable resources or made with recycled content are discussed. Economic and social benefits of Green Building Technologies are also emphasized. Students are exposed to the Leadership in Energy and Environmental Design: (LEED) Green Building Rating System established by the U.S. Green Building Council.
Credit hours: 3 *Contact hours: 3*

ENV221 OSHA - 40 HR - HAZWOPER
(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.
Credit hours: 2 *Contact hours: 3*

ENV222 INDUST PROCES & POLUTION CNTRL
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CHM121 or CHM141 and MTH121

ENV223 BASIC GEOLOGY/HYDROLOGY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MTH121

ENV224 AIR SAMPLING-ANA & CONTR
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CHM121 or CHM141 and MTH222

ENV225 SOLID AND HAZ WASTE SMPLG
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CHM121 or CHM141 and ENV121 and MTH222

ENV226 WATER SAMPLING,ANAL,CONT
This course will cover water sampling techniques and chemical analysis of water quality. Included will be methods of measurement, techniques for sampling and required field instrumentation. Laboratory analysis, date interpretation and proper reporting methods will be developed.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CHM121 or CHM141 and ENV223 and MTH222

ENV228 HEALTH AND SAFETY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ENV121

ENV230 OSHA 8-HR HAZWOPER REFRESHER
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.
Credit hours: 1 *Contact hours: 1*

ENV231 OSHA 30 HOUR GENERAL INDUSTRY
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 receive a certificate of completion.
Credit hours: 2 *Contact hours: 3*

ENV236 ENV HLTH AND SAFTY SPEC PRJECT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): ECA122 and ENV121 and ENV221

EST129 SWITCHGEAR, TRANS, CONTROLS
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): EET120

EST130 ELECTRICAL CIRCUITS/DEV
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): MTH101 or MTH121 or MTH103

EST132 FUNDAMENTAL OF ELECTRICITY
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): MTH101 or MTH103

EST133 DIGITAL LOGIC FUNDAMENTALS
This course covers the fundamentals of digital logic circuits. Topics include number systems, logic gates, Boolean algebra, logic simplication, 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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): EST132

EST134 PROGRAMMABLE CONTROLLER FNDMTL
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): EST133

EST221 ELECTRONIC TBLSHOOTING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): EET123

ETD121 ENGINEERING TECHNOLOGY SEMINAR
This course makes the student aware of the College, the Division, and the Engineering Technologies Division programs. This course is divided into two major segments. The first segment includes resource utilization, study and test-taking skills, learning styles, goal setting, time management, engineering speakers, career services, advising, changing majors, scheduling, lifelong learning, professionalism, ethical/social responsibilities, a respect for diversity, knowledge of contemporary professionalism, societal/global issues, a commitment to quality/timeliness/continuous improvement. The second segment emphasizes basic engineering and math skills and includes properties of right triangles, basic trigonometric functions, basic linear equations, use of calculators, unit conversation, fractions, geometry and technical report writing.
Credit hours: 1 *Contact hours: 2*

ETD201 ENG INDEPENDENT STUDY
An independent study may be arranged through the Engineering Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Engineering Technologies Division will determine course content, meeting schedules and credit hours.
Credit hours: 1 *Contact hours: 10*

ETD202 ENG INDEP STUDY
An independent study may be arranged through the Engineering Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Engineering Technologies Division will determine course content, meeting schedules and credit hours.
Credit hours: 2 *Contact hours: 20*

ETD203 ENG INDEPENDENT STUDY
An independent study may be arranged through the Engineering Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Engineering Technologies Division will determine course content, meeting schedules and credit hours.
Credit hours: 3 *Contact hours: 30*

ETD204 ENG INDEPENDENT STUDY
An independent study may be arranged through the Engineering Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Engineering Technologies Division will determine course content, meeting schedules and credit hours.
Credit hours: 4 *Contact hours: 40*

ETD222 ENGINEERING CO-OP
Co-op opportunities are available to students enrolled in engineering technologies. Students may contact their faculty advisors or Career Services for more information.
Credit hours: 2 *Contact hours: 20*

ETD223 ENGINEERING CO-OP
Co-op opportunities are available to students enrolled in engineering technologies. Students may contact their faculty advisors or Career Services for more information.
Credit hours: 3 *Contact hours: 30*

ETD224 ENGINEERING CO-OP
Co-op opportunities are available to students enrolled in engineering technologies. Students may contact their faculty advisors or Career Services for more information.
Credit hours: 4 *Contact hours: 40*

EUT121 OVERHEAD LINE TECHNOLOGY I
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.
Credit hours: 6 *Contact hours: 10*

EUT122 OVERHEAD LINE TECHNOLOGY II
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.
Credit hours: 6 *Contact hours: 10*
Pre-requisite(s): EUT121

EUT123 SUBSTATION TECHNOLOGY I
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 are included in this course.
Credit hours: 6 *Contact hours: 10*

EUT124 SUBSTATION TECHNOLOGY II

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 are included in this course.

Credit hours: 6 *Contact hours: 10*

EUT221 OVERHEAD LINE TECHNOLOGY III

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 and 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 under controlled conditions. Applicable safety requirements will be taught and stressed throughout the course of instruction.

Credit hours: 6 *Contact hours: 10*

Pre-requisite(s): EUT122

EUT222 OVERHEAD LINE TECHNOLOGY IV

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.

Credit hours: 7 *Contact hours: 12*

Pre-requisite(s): EUT221

EUT224 SUBSTATION TECHNOLOGY III

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 dielectric testing DGA sampling according to substation practices. Battery impedance testing is also included in this course.

Credit hours: 6 *Contact hours: 10*

Pre-requisite(s): EUT124

EUT225 SUBSTATION TECHNOLOGY IV

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 analysis. All above mentioned functions are performed according to the substation preferred.

Credit hours: 7 *Contact hours: 12*

FIN123 FUND FINANCIAL SERVICES

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, 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 financial planning.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): IDS102

Co-requisite(s): BUS123

FIN220 BUSINESS FINANCE

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC127 and ACC132 or ACC122

FIN221 INVESTMENT AND SECURITIES

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC122 or ACC132

FIN222 RETIREMENT PLAN/EMPLOYEE

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC132

FIN223 ESTATE AND INCOME TAX PLAN

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.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): ACC124

FIN224 RISK MANAGEMENT
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): FIN123

FIN225 FIN SERVICES CASES/PRACT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): FIN221 and FIN224
Co-requisite(s): FIN223 and FIN222

FIN226 CURRENT FIN SERVICE TOPICS I
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): FIN123 and FIN221

FIN227 MONEY AND BANKING
This course will address the economic concepts associated with money, financial institutions and monetary policy. Topics covered include: financial markets and interest rates; the structure and management of financial institutions; the structure of central banks and the Federal Reserve System; and, determininants of the money supply and the tools of monetary policy. Upon successful completion of this course, students should be able to apply and demonstrate an understanding of the above topics relative to today's economy.
Credit hours: 3 *Contact hours: 3*

FST128 FIREFIGHTER 1A -36 HOUR
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 full-time professional firefighter trained to the Firefighter I and II levels.
Credit hours: 2 *Contact hours: 3*

FST129 FIREFIGHTER 1C-1 120 HR
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 full-time professional firefighter trained to the Firefighter I and II levels.
Credit hours: 5 *Contact hours: 8*

FST224 LGL ASPECTS OF FIRE SERV
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 are included.
Credit hours: 2 *Contact hours: 2*

FST225 HAZARDOUS MATERIALS
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.
Credit hours: 3 *Contact hours: 3*

FST226 LINE OFFICER LEADERSHIP
Broad management theory and application of basic strategy and tactics for company officers is the focus of this course.
Credit hours: 3 *Contact hours: 3*

FST228 FIREFIGHTER LEVEL 1/2 240 HR
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.
Credit hours: 10 *Contact hours: 16*

FST229 FIREFIGHTER 1B 84 HOUR
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): FST128

FST230 FIREFIGHTER 1C-2-120 HOUR
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.
Credit hours: 5 *Contact hours: 8*

GER121 INTRO TO GERONTOLOGY
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.
Credit hours: 3 *Contact hours: 3*

GER122 PSYCHOSOCIAL ASPECT OF AGING
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.
Credit hours: 3 *Contact hours: 3*

GIS121 GIS AND REMOTE SENSING

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 Satellite Tool Kit.

Credit hours: 4 *Contact hours: 4*

Pre-requisite(s): IDS102 and MTH101 or MTH103 or ECA122

GIS122 GIS TOOLS AND PROCESSES

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.

Credit hours: 3 *Contact hours: 4*

Pre-requisite(s): IDS102 and MTH101 or MTH103 or ECA122

GIS221 SPECIAL TOPICS IN GIS

This course examines the scientific methods used to derive useful information from spatialdata. Students explore GIS theory related to the visualization, measurement, transformation, andoptimization 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.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): GIS121 and GIS122

GIS222 EXTENDED TOOLS IN REMOTE SENSI

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.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): GIS121 and GIS122

GIS223 ADV TLS IN GIS AND REMOTE SENS

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.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): GIS122 and GIS121 *GIS222*

GIS224 EXTENDED TOOLS IN SURFACE ANAL

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 to the local area.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): GIS121 and GIS122 *GIS225*

GIS225 EXTENDED TOOLS IN ROUTING ANAL

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.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): GIS121 and GIS122 or GIS222 and GIS224

GIS226 EXTENDED TOOLS IN 3D VISUALZTN

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.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): GIS222 and GIS223

GIS227 GEOSPATIAL APPTN PROJ PUB SAF

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 their project findings to the appropriate stakeholders.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): GIS222 and GIS223 and GIS224 and GIS225

GIS228 GEOSPATIAL APPL PROJ IN AGRICL

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 forestry.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): GIS222 and GIS223 and GIS224 and GIS225

GIS229 GEOSPATIAL APP PROJ IN BUS MKT
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 student presenting their project findings to the appropriate stakeholders.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): GIS222 and GIS223 and GIS224 and GIS225

GIS230 GEOSPATIAL APP PROJ CREATG MOD
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): GIS222 and GIS223 and GIS224 and GIS225

GSD201 GEN INDEPENDENT STUDY
An independent study may be arranged through the Arts and Sciences Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Arts and Sciences Division will determine course content, meeting schedules and credit hours.
Credit hours: 1 *Contact hours: 10*

GSD202 GEN INDEPENDENT STUDY
An independent study may be arranged through the Arts and Sciences Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Arts and Sciences Division will determine course content, meeting schedules and credit hours.
Credit hours: 2 *Contact hours: 20*

GSD203 GEN INDEPENDENT STUDY
An independent study may be arranged through the Arts and Sciences Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Arts and Sciences Division will determine course content, meeting schedules and credit hours.
Credit hours: 3 *Contact hours: 30*

GSD204 GEN INDEPENDENT STUDY
An independent study may be arranged through the Arts and Sciences Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Arts and Sciences Division will determine course content, meeting schedules and credit hours.
Credit hours: 4 *Contact hours: 40*

HIS121 US History I - to 1877
This course will cover the major trends and ideas in American history from the first settlements in North America to the end of the Civil War and Reconstruction. The economic, social, political and religous beliefs and issues affecting the growth and development of the American nation will be examined, along with the issues that produced conflict in the formative years of our history. Toics include: early settlements and immigration, the growth of the colonies, the American Revolution, westward expansion, sectional conflict and the Civil War.
Credit hours: 3 *Contact hours: 3*

HIS122 US HISTORY II FROM 1877
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.
Credit hours: 3 *Contact hours: 3*

HIT121 HTLH DATA MGT AND DELIVRY SYSM
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.
Credit hours: 4 *Contact hours: 6*

HIT122 ALTERNATVE HLTH RECS AND REGST
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HIT121

HIT123 HLTHCRE LEGAL AND ETHICAL ISS
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.
Credit hours: 2 *Contact hours: 2*
Co-requisite(s): HIT121

HIT124 CLINICAL CLASSIFICATNS SYS I
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
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): HIT121 and BIO122 or BIO123
Co-requisite(s): BIO124

HIT221 CLINICAL CLASSIFICATNS SYS II
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): BIO222 and HIT124

HIT222 HLTHCRE STATSTICS AND RESEARCH
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HIT122 and HIT124
Co-requisite(s): HIT224

HIT223 HIM SUPERVSN:CONCPTS AND PRACT
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): HIT224
Co-requisite(s): ENG222

HIT224 QUALITY MGT IN HEALTHCARE
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.
Credit hours: 2 *Contact hours: 2*
Co-requisite(s): HIT222

HIT226 PROFESSIONAL PR I/SEM I
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.
Credit hours: 4 *Contact hours: 9*

HIT227 PROFESSIONAL PR II/SEMII
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.
Credit hours: 4 *Contact hours: 9*

HIT229 HLTH INFO SYSTEMS AND TECH
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CAP120 or BCA120 and HIT224

HIT230 HLTH CARE DELIVERY IN THE US
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.
Credit hours: 2 *Contact hours: 2*

HIT231 CODING PROF PRACTICE EXP/SEMIN
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.
Credit hours: 2 *Contact hours: 6*
Pre-requisite(s): HIT124

HIT232 HLTHCRE REIMBURSEMENT METHODOL
Health care reimbursement methodologies in health care settings; health care 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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): HIT124

HIT233 CLINICAL CLASSIFICTION SYS III
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.
Credit hours: 2 *Contact hours: 4*
Pre-requisite(s): HIT124

HLS121 INTRO TO EMERGENCY MGT
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.
Credit hours: 3 *Contact hours: 4*

HLS122 INTELLIGENCE AND HOMELAND SEC
This course will explore the organization and functions of U.S. Intelligence and Homeland Security, its interaction with national security policy makers, 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.
Credit hours: 3 *Contact hours: 4*

HLS123 HOMELD DEF AND CRISIS MGT
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.
Credit hours: 3 *Contact hours: 4*

HLS220 WEAPONS OF MASS DESTRUCTN AWAR
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HLS123

HLS221 TERRORISM AND HOMELAND DEFENSE
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HLS122

HLS222 ORGAN RESPONS & NETWK CRIS RES
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HLS123

HLS223 CONFLICT MANAGEMENT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HLS123

HLS224 EMERG RESPONSE TO TERRORISM
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HLS121 and HLS122

HTD201 HLTH INDEP STUDY
An independent study may be arranged through the Health Sciences Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Health Sciences Division will determine course content, meeting schedules and credit hours.
Credit hours: 1 *Contact hours: 10*

HTD202 HLTH INDEP STUDY
An independent study may be arranged through the Health Sciences Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Health Sciences Division will determine course content, meeting schedules and credit hours.
Credit hours: 2 *Contact hours: 20*

HTD203 HLTH INDEP STUDY
An independent study may be arranged through the Health Sciences Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Health Sciences Division will determine course content, meeting schedules and credit hours.
Credit hours: 3 *Contact hours: 30*

HTD204 HLTH INDEP STUDY
An independent study may be arranged through the Health Sciences Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean of Health Sciences Division will determine course content, meeting schedules and credit hours.
Credit hours: 4 *Contact hours: 40*

HTH101 STUDENT SUCCESS HEALTH SEMINAR
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 successful.
Credit hours: 1 *Contact hours: 2*

HVC121 HVAC PRINCIPLES I
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.
Credit hours: 3 *Contact hours: 4*

HVC122 HVAC PRINCIPLES II
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.
Credit hours: 3 *Contact hours: 4*
Co-requisite(s): HVC121

HVC123 SHEET METAL LAYOUT I
This course covers layout and forming of basic sheet metal fittings using drawing equipment and construction paper. Topics include square/round ductwork, tapers, transitions and offsets.
Credit hours: 3 *Contact hours: 4*

HVC124 MOBILE CAB CLIMATE CNTL SYS/AP
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, the mobile (automotive) EPA refrigerant handling testing and certification will be conducted.
Credit hours: 2 *Contact hours: 3*

HVC221 HVAC FURNACE COMBUSTION PRINC
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 are a significant part of this course.
Credit hours: 2 *Contact hours: 2*

HVC222 HVAC DESIGN & APPLICATION
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HVC122

HVC223 HVAC SYS OPER AND TRBLSHT- HT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HVC122

HVC224 HVAC SYS OP AND TRBLST- COOING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HVC122

HVC226 SHEET METAL LAYOUT II
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MST132 or HVC123

HVC227 HVAC FIELD INSTALL TECH PROC
Laboratory intensive introduction to air conditioning system field installation techniques and procedures.
Credit hours: 4 *Contact hours: 5*
Co-requisite(s): HVC122

HVC228 HVAC SYS AIRFLOW DUCT SIZING
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): MTH101 or MTH103

HVC229 AIR CONDITNING REFRIG CYCLE
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.
Credit hours: 1 *Contact hours: 1*

HVC230 HVAC RESIDENTIAL EQUIP SIZING
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.
Credit hours: 1 *Contact hours: 1*

HVC231 HVAC MOTORS AND COMPRESSORS
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.
Credit hours: 1 *Contact hours: 1*

HVC232 ADVANCED HVAC APP CONTROLS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HVC222 and HVC227

HVC233 HVAC BID SPECIFICATION
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HVC222

HVC234 HVAC ELECTRICAL SYS & APPLIC
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. The sequence of operation and diagnostic trouble-shooting, utilizing pictorial, schematic, and hands on approaches are provided.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MTH101 or MTH103
Co-requisite(s): HVC121

HVC235 REFRIGERATION
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
Credit hours: 3 *Contact hours: 4*

HVC236 ADV HVAC ELECTRICAL APPLIC
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HVC234

HVC237 HVAC COMMERCIAL CONTROLS
This course will further the student's knowledge of control by introducing the student to the equipment and devices that control HVAC commercial equipment, pnuematics, and Direct Digital Controls. The lectures/labs will discuss the function, operation, service, and how to troubleshoot the controls.
Credit hours: 3 *Contact hours: 4*

HVC238 CHILLER OPERATIONS
This course will discuss the specifics of the operation of chillers. The lectures will include small 25 ton units 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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): HVC122

IDS101 TECHNICAL COMPREHENSION
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.
Credit hours: 4 *Contact hours: 4*

IDS102 CRITICAL ANALYSIS
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): IDS101 or CAL101

IDS110 LEADERSHIP CONCEPTS
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.
Credit hours: 3 *Contact hours: 3*

IDS112 COLLEGE SUCCESS SKILLS MOD I
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.
Credit hours: 1 *Contact hours: 1*

IDS113 COLLEGE SUCCESS SKILLS MOD II
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.
Credit hours: 1 *Contact hours: 1*

IDS114 COLLEGE SUCCESS SKILLS MOD III
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.
Credit hours: 1 *Contact hours: 1*

IDS115 COLLEGE SUCCESS SKILLS
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.
Credit hours: 3 *Contact hours: 3*

IDS120 COMPUTER CONCEPTS
This self-paced course is designed to familiarize the beginner with the personal computer. It addresses computer literacy, the Windows operating environment, program and file management, and introduces the Internet, Web browsers, and e-mail. Placement is based on score achieved on entrance assessment tests. Proficiency of 80% constitutes passing.
Credit hours: 1 *Contact hours: 1*

IDS200 LEADERSHIP SEMINAR
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.
Credit hours: 3 *Contact hours: 3*

IDS201 TRUST AND TEAM BUILDING
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): IDS110

IDS202 GOAL SET/MANAGING SUCCES
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): IDS110

IDS203 CHANGE,CONFLICT AND TRANSF
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): IDS110

IDS204 LEADERSHIP VISION
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): IDS110

IDS205 SITUATIONAL LEADERSHIP
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): IDS110

IDS206 LDSHP DYNAMICS:IND DEV INFLUEN
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ENG124

IET121 INDUSTRIAL MANAGEMENT CONCEPTS
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.
Credit hours: 3 *Contact hours: 3*

IET223 COMPUTER NUMERICAL CTRL
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.
Credit hours: 4 *Contact hours: 6*

IET228 INTRO TO ROBOTICS
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.
Credit hours: 2 *Contact hours: 2*

IET270 DIM METROLOGY AND INSPECT I
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MTH101 or MTH103

IMT121 INTERACTIVE MEDIA
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.
Credit hours: 3 *Contact hours: 3*

IMT122 GRAPHIC ARTS DESIGN
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.
Credit hours: 3 *Contact hours: 4*

IMT125 3D GRAPHICS MODELING
Topics include 3D modeling, texturing, lighting, and rendering. Upon successful completion, the student will be able to effectively use the 3DsMax interface to create and render 3D objects and scenes.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT122

IMT129 DIGITAL AUDIO RECG AND EDITING
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 successful completion, the student will be able to create and produce audio for all visual media, CD and DVD.
Credit hours: 3 *Contact hours: 4*
Co-requisite(s): IMT121

IMT131 COLOR THEORY AND DESIGN
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.
Credit hours: 3 *Contact hours: 4*

IMT132 DIGTL PHOTOGRAPHY/GRAPHC&MEDIA
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.
Credit hours: 3 *Contact hours: 4*
Co-requisite(s): IMT122

IMT133 TECHNICAL ILLUSTRATIONS
his 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.
Credit hours: 3 *Contact hours: 4*

IMT134 TECHNICAL MUSICIANSHIP
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.
Credit hours: 3 *Contact hours: 4*
Co-requisite(s): IMT135

IMT135 MUSIC THEORY AND COMPOSITION I
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.
Credit hours: 3 *Contact hours: 4*

IMT136 PRINCIPLES OF ANIMATION
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.
Credit hours: 3 *Contact hours: 4*
Co-requisite(s): IMT121

IMT137 DRAWING BASICS
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.
Credit hours: 3 *Contact hours: 4*

IMT223 DIGITAL VIDEO RECORDING & EDIT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT121

IMT227 3D GRAPHICS ANIMATION
Building upon the stills acquired in 3D modeling, this course teaches the student the principles of animation using 3DsMax. Upon completion, the student will understand such concepts as weight, balance, and inverse kinematics.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT136
Co-requisite(s): IMT125

IMT228 ADV 3D DESIGN GRAPHIC ANIMATON
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT227 and IMT240

IMT230 WEBCASTING AND MUSIC PUBLISHNG
The goal of this course is for students to learn how to 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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT129

IMT233 ADV TEXTURES AND EFFECTS
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 be introduced, allowing the creation of environmental effects such as smoke, fire, and clouds.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT249

IMT237 COMPOSITING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT223 or IMT125

IMT238 ADVANCED VIDEO PRODUCTION
This course expands on the skills and techniques learned in Lighting and 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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT242

IMT239 MUSIC SYNTHESIS I
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT247

IMT240 ADVANCED 3D GRAPHIC MODELING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT125

IMT242 LIGHTING AND CINEMATOGRAPHY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT223

IMT243 ADVANCED COMPOSITING
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 projects utilizing Adobe After Effects and Autodesk 3DsMax.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT237

IMT244 DIGITAL PAGE LAYOUT AND DESIGN
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT122 and IMT131 and IMT253

IMT245 GRAPHIC ARTS DESIGN II
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. 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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT122

IMT246 APPLIED MUSIC TECHNOLOGY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT250

IMT247 MUSIC THEORY COMPOSITION II
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT135

IMT248 MUSIC TECHNOLOGY PRACTICUM
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.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): IMT239
Co-requisite(s): IMT246

IMT249 TEXTURES FOR 2D AND 3D
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT122

IMT250 MUSIC TECHNOLOGY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT129

IMT251 AUTHORING AND VIDEO COMPRESSON
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT223

IMT252 ADVD EDITING AND AUDIO/VIDEO
This course covers advanced topics in video editing and audio preparation for video. Topics covered include: multi-camera editing, color correction, hi-definition conversion, mixing for surround sound and ADR. A series of production assignments, in conjunction with IMT239, will cover basic film scoring.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT223 and IMT129

IMT253 GRAPHIC FOR ILLUSTRATION
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT122

IMT254 PORTFOLIO DEVELOPMENT-IMT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT244 and IMT245

IMT255 ADVANCED ILLUSTRATION
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 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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT253

IMT256 DIGITAL IMAGING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT132
Co-requisite(s): IMT122

IMT257 ADVANCE RENDERING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT233

IMT258 3D PRODUCTION PRACTICUM
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.
Credit hours: 3 *Contact hours: 4*

IMT259 MUSIC SYNTHESIS II
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT239

IMT260 LIVE SOUND
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT129

IMT261 ADVANCED MUSIC TECHNOLOGY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT239
Co-requisite(s): IMT246

IMT262 ADVANCED DIGITAL PHOTOGRAPHY
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT132

IMT263 PHOTOGRAPHIC LIGHTING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IMT132

IMT264 IMAGE MANAGMENT
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.
Credit hours: 3 *Contact hours: 4*

IRT121 REALTIME THEORY I
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.
Credit hours: 4 *Contact hours: 8*

IRT122 REALTIME THEORY II
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.
Credit hours: 4 *Contact hours: 8*
Pre-requisite(s): CCR121 or IRT121

IRT123 SPEEDBUILDING III
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 steno 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 all options in the information reporting technology program: for the judicial reporting option, passing three 5-minute machine shorthand tests of literary at 180 wpm, jury charge at 200 wpm, and 2-voice testimony material at 225 wpm with a minimum of 95% accuracy; and for the captioning option, passing three (3) fifteen-minute, literary broadcast material takes at 180 wpm (word count) with 96% verbatim accuracy. The instructor will grade a random five-minute selection from each fifteen minute take. Upon graduation, students should be able to pass the National Court Reporters Association's certification examination.
Credit hours: 4 *Contact hours: 8*
Pre-requisite(s): CCR130 or IRT130

IRT129 SPEED BUILDING I
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.
Credit hours: 4 *Contact hours: 8*
Pre-requisite(s): CCR122 or IRT122

IRT130 SPEED BUILDING II
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.
Credit hours: 4 *Contact hours: 8*
Pre-requisite(s): CCR129 or IRT129

IRT131 LEGAL TERMINOLOGY
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.
Credit hours: 3 *Contact hours: 4*

IRT132 REALTIME WRITING I
Using an approved NCRA approved realtime theory, students' realtime writing skills on the steno machine will be reinforced. Mastery of briefs and phrases will be emphasized in realtime writing skills to build up to graduation speeds. Upon completion, students should be able to incorporate brief forms and phrases into their realtime writing for judicial reporting or broadcast captioning.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): IRT121 or CCR121

IRT133 THEORY FOR SCOPISTS
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.
Credit hours: 4 *Contact hours: 8*

IRT228 REALTIME TRANSCRIPTION
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): BIO125 and IRT129 or CCR129

IRT229 REALTIME SOFTWARE APPLICATIONS
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.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): CCR121 or IRT121

IRT230 BASIC BROADCAST CAPTIONING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CCR122 or IRT122

IRT231 JUDICIAL PROCEDURES
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IRT122
Co-requisite(s): CCR229 or IRT229

IRT232 INFORMATION REPRTING INTRNSHP
The following internship criteria must be met for each IRT option: Judicial Option: shall include a minimum of 40 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 5-minute, 2-voice testimony tests with a minimum of 95% accuracy dictated at a minimum of 225 wpm; transcribe three 5-minute jury charge tests with a minimum of 95% accuracy dictated at a minimum of 200 wpm; and transcribe three 5-minute literary tests with a minimum of 95% accuracy dictated at a minimum of 180 wpm; and transcribe a simulated state certification test, state qualifying exam, or RPR skills test within the allotted test transcription guidelines. Captioning Option: Internship shall include a minimum of 25 hours of writing and 15 hours of research and dictionary preparation under the supervision of a practicing captioner off-site, or institutional instructor for the on-campus captioning internship experience. Specific graduation requirements must be passed for the captioning option: write three (3) fifteen-minute, literary broadcast material takes at 180 wpm (word count) at 96% verbatim accuracy following NCRA's "What is an Error Guidelines," (the instructor will grade a random five-minute selection from each fifteen minute take): and submit an unedited realtime captioned translation of three (3) 15-minute program segments on varied topics. Upon graduation, students should be able to pass the National Court Reporters Association's certification examinations relevant to their option.
Credit hours: 2 *Contact hours: 1*
Pre-requisite(s): CCR130 or IRT130

IRT233 TRANS & EDITING FOR SCOPISTS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): IRT122 and IRT229 and IRT231

IRT235 ADVANCED BROADCAST CAPTIONING
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CCR230 or IRT230

IRT236 ADVANCED THEORY PRINCIPLES
This course is designed for those students who already know the steno machine keyboard and who may be enrolled in Speedbuilding I. This course emphasizes advanced review and reinforcement of the theory principles learned in Realtime Theory I/II. Students will review the theory principles through the use of lecture, a text, and taped dictation. The instructor will reinforce the principles through theory principle tests; reinforcement of briefs, phrases, and mandatories; and live or audio dictation. Upon completion of this course, students should be able to successfully write realtime, conflict-free machine shorthand at an accuracy rate of 95% or higher without hesitation and through muscle memory.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): CCR122 or IRT122

IRT237 REALTIME WRITING II
Using an NCRA approved realtime theory, numeric and alphabetic writing skills on the steno machine will be reinforced. Mastery of writing numbers phonetically and writing proper names using the alphabet in fingerspelling found in the judicial reporting and broadcast captioning settings will be emphasized. Upon completion, students should be able to write numbers fluently using phonetic spelling and fingerspell proper names using stenotyping and the phonetic table of the translation dictionary during timed dictation.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): IRT122 or CCR122

IRT238 REALTIME WRITING IV
Using an NCRA approved realtime theory, students should be able to build realtime writing speed by writing in 1-, 2-, 3-, and 5-minute increments through live and/or taped dictation at various speeds. Students will increase writing endurance at the steno machine by writing dictation for a minimum of 15 minutes with a 96% accuracy rate. With instructor assistance, students will be able to identify personal strengths and weaknesses in writing technique. This course is a supplemental course to Speedbuilding III. Upon completion, students should be able to write at a controlled speed for a sustained period of time at the accuracy rate of 96%.
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): IRT236 or CCR236

IRT239 REALTIME WRITING III
Advanced instruction in building translation dictionary entries and maintaining specific job dictionaries for use in the judicial and broadcast captioning fields. Students will also make back up copies of the job dictionaries they have created. Upon completion, students should be able to properly maintain any job dictionary created in the realtime software and prioritize dictionaries according to specific usage (judicial reporting, broadcast captioning, CART.)
Credit hours: 1 *Contact hours: 2*
Pre-requisite(s): IRT122 and CCR122

ITD121 INFORMATION TECHNOLOGY SEMINAR
This course makes the student aware of the College, the Division, and the Information Technologies Division programs. This course covers study and test-taking skills, learning styles, goal setting, time management, information technology speakers, career services, advising, changing majors, scheduling, interpersonal skills, and communication skills. Use of application software such as email, text editors, and collaborative communications, navigation of hierarchical directory structures, basic management of files and directories (copy, move, delete, rename etc.) and internet navigation skills are also covered.
Credit hours: 1 *Contact hours: 2*

MAS121 MASSAGE THERAPY I
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.
Credit hours: 6 *Contact hours: 8*

MAS122 MASSAGE THERAPY II
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): MAS121 and MAS123

MAS123 MASSAGE THERAPY A & P I
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.
Credit hours: 1 *Contact hours: 1*

MAS124 MASSAGE THERAPY A & P II
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
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): MAS123
Co-requisite(s): BIO122

MAS223 MASSAGE THERAPY REVIEW
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): BIO122 or BIO123
Co-requisite(s): MAS226

MAS224 MASSAGE THERAPY III
In this course the students continue to study the practice of massage therapy in both a general and clinical setting.
Credit hours: 4 *Contact hours: 5*

MAS225 MASSAGE THERAPY IV
In this course students continue to study the practice of massage therapy in both a general and clinical setting.
Credit hours: 2 *Contact hours: 3*

MAS226 MASSAGE THERAPY V
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MAS124 and MAS225

MAS227 MASSAGE THERAPY PROCEDURES
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): MAS121

MAS228 PROFESSONAL PRACTCE & EVALUATN
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.
Credit hours: 1 *Contact hours: 1*
Co-requisite(s): MAS225

MAS229 CLINIC OPERATIONS
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 be covered.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): MAS225

MAS230 LTD BRANCH CERT OF COMP AND RE
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.
Credit hours: 3 *Contact hours: 3*

MAT121 MEDICAL ASSISTING I
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. Pathophysiology is presented as related to procedures.
Credit hours: 4 *Contact hours: 6*

MAT122 MEDICAL ASSISTING II
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.
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): MAT121

MAT123 MEDICAL ASSISTING III
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): MAT122

MAT124 MEDICAL OFFICE PROCEDURES I
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): OAD101
Co-requisite(s): BCA120 or CAP120

MAT221 MED LAB PROC FOR MED ASSTG
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MAT122

MAT222 INSURANCE FOR MEDICAL ASSISTNG
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.
Credit hours: 4 *Contact hours: 5*
Co-requisite(s): MAT124 and MAT122

MAT223 MEDICAL OFFICE PROCEDURES II
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.
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): MAT122 and ENG124 and MAT124 and MTH101 or MTH103

MAT224 PHARMACOLOGY/MEDICATIONS
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): MAT122 and MTH101 or MTH103

MAT225 EMERGENCY MEDICAL PROCEDURES
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): MAT122

MAT226 MEDICAL LAW AND MANAGEMENT
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MAT223

MAT227 EXTERNSHIP MEDICAL ASSISTING
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.
Credit hours: 2 *Contact hours: 12*

MAT228 OPHTHALMOLOGY I
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.
Credit hours: 3 *Contact hours: 3*
Co-requisite(s): MAT122

MAT229 OPHTHALMOLOGY II
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MAT228

MAT230 ADV PHLEBOTOMY
Advanced Phlebotomy is designed for Stark State College 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. Forty hours of clinical externship in a hospital or clinical facility are required for completion of advanced phlebotomy.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MAT122

MAT231 REIMBURSEMENT FR HLTH CARE SER

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.

Credit hours: 3 *Contact hours: 3*

Pre-requisite(s): BIO101 or BIO121 or BIO123

MAT232 HOSPITAL PHLEBOTOMY

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.

Credit hours: 3 *Contact hours: 4*

Pre-requisite(s): MTH100 or CAL103 or MTH101 or MTH103

MAT233 MEDICAL ASSISTING SEMINAR

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

Credit hours: 1 *Contact hours: 1*

MET123 MATERIAL SCIENCE

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.

Credit hours: 2 *Contact hours: 3*

MET124 STATICS/STR OF MATERIALS

The study of major force systems under conditions of equilibrium. Various methods are used to analyze the effects loads have on structural members and machine components. Topics include force systems, friction, stress and strain, moment and shear diagrams, centroids, moments of intertia, and beam deflection analysis. Emphasis is placed on learning the fundamentals and applying them to solving problems. TAG approved course - OET007 effective Spring 2008.

Credit hours: 4 *Contact hours: 5*

Pre-requisite(s): MTH121 and PHY121 or MTH125 and MTH128

MET221 ADV STRENGTH OF MATERIAL

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.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): MET124

MET222 FLUID POWER

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.

Credit hours: 4 *Contact hours: 5*

Pre-requisite(s): MET124

MET223 DYNAMICS

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.

Credit hours: 2 *Contact hours: 3*

Pre-requisite(s): MET124

MET225 MANUFACTURING PROCESSES

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.

Credit hours: 3 *Contact hours: 3*

MET226 TECH PROJECT-MECHANICAL

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.

Credit hours: 2 *Contact hours: 4*

MET227 THERMODYNAMICS & HEAT TRANSFER

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.

Credit hours: 3 *Contact hours: 4*

Pre-requisite(s): MTH121 and PHY121

MET228 MACHINE DESIGN

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.

Credit hours: 4 *Contact hours: 5*

Pre-requisite(s): MET124

MET229 ALT ENERGY SOURCES/FUEL CELLS

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.

Credit hours: 3 *Contact hours: 4*

MET230 ANA/APPS OF FUEL CELLS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MET229

MET231 FUEL CELL SYSTEMS
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MET230

MET232 FUEL CELL PROJECT
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MET231

MGT121 PRINCIPLES OF MANAGEMENT
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): BUS121 or ENT120

MGT221 SUPERVISION
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MGT121

MGT222 SMALL BUSINESS MGT
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): ACC133

MGT223 BUSINESS DECISION MAKING
This course utilizes a multitude of managerial business decision making skills that culminates your business management classroom experience. It involves an actual competitive team-based decision making computer simulation. The course includes in-depth analysis and research into production, inventory, finance, research and development, pricing, product placement, and industry competitiveness decisions. The course requires teamwork and an understanding of all the areas of business decision making to successfully manage a corporation. Upon completion of this course a student should have a greater understanding of the impact of teamwork, functional department interactivity, and competitive market analysis on everyday business decisions.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): ACC133 and MGT121

MGT224 HUMAN RESOURCE MGT
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MGT121

MGT227 OPERATIONS MANAGEMENT
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MGT121 and MTH222 or ACC127

MGT232 INTERNATIONAL BUSINESS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): BUS121

MIS121 MED INSTRUM STERLIZATION I/SEM
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.
Credit hours: 4 *Contact hours: 12*
Pre-requisite(s): BIO121 or BIO123
Co-requisite(s): BIO125 and BIO101

MIS122 MED INSTRUMENT STERIL II/SEM
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.
Credit hours: 6 *Contact hours: 14*
Pre-requisite(s): MIS121

MIS123 INTRO TO SURGICAL TERM/MCROBIO
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.
Credit hours: 3 *Contact hours: 3*

MIS221 MED INSTRUMENT STER III/SEMINA
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.
Credit hours: 6 *Contact hours: 14*
Pre-requisite(s): MIS122 and MIS123

MKT121 PRINCIPLES OF MARKETING
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 - OCM006 effective Spring 2008.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): BUS121

MKT221 SALES
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MKT121

MKT222 ADVERTISING
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MKT121

MKT226 SUPPLY CHAIN MANAGEMENT
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MKT121

MKT227 CONSUMER BEHAVIOR
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MKT121

MKT229 MARKET PLANNING
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MKT121

MKT233 MARKET RESEARCH
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MKT121 and ACC127

MKT234 PRINCIPLES OF TRANSPORTATION
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MKT226

MKT235 INTRODUCTION TO LOGISTICS
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 interrationalships within individual companies and within the supply chain.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): ACC127 and MKT226

MKT236 E-MARKETING
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MKT121

MLT121 FUNDAMENTALS OF LAB TECH
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.
Credit hours: 3 *Contact hours: 4*

MLT122 URINALYSIS
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 approved course - OHL010 effective Fall 2005.
Credit hours: 2 *Contact hours: 3*

MLT123 HEMATOLOGY I
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 approved course - OHL009 effective Spring 2008.
Credit hours: 3 *Contact hours: 4*

MLT124 HEMATOLOGY II
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 approved course - OHL009 effective spring 2008.
Credit hours: 4 *Contact hours: 6*
Pre-requisite(s): MLT123

MLT125 IMMUNOHEMATOLOGY
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.
Credit hours: 5 *Contact hours: 7*
Pre-requisite(s): MLT122

MLT221 IMMUNOLOGY/SEROLOGY
The course is designed to introduce the concepts of the immunological response in health and in disease. Included is a study of diseases commonly diagnosed by serological techniques. The course introduces the principles of serologic tests commonly performed in the clinical laboratory and interpretation of tests. The student will have the opportunity to perform a variety of laboratory procedures, including agglutination, precipitation and enzyme-linked immunoassay.
Credit hours: 3 *Contact hours: 4*

MLT222 CLINICAL CHEMISTRY
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. TAG approved course - OHL010 effective Spring 2007.
Credit hours: 5 *Contact hours: 7*
Pre-requisite(s): BIO123 or BIO121

MLT223 CLINICAL MICROBIOLOGY
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.
Credit hours: 7 *Contact hours: 10*
Pre-requisite(s): BIO221 and MLT124

MLT224 DIRECTED PRACTICE/SEM
The student has the opportunity to perform clinical laboratory testing using modern equipment. Part of the clinical experience occurs at the college under the direction of MLT faculty. During the remainder of the experience, the student is assigned to an affiliated hospital where she/he is under the supervision of a practicing laboratorian. The student rotates through the clinical laboratory 40 hours a week. 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. A seminar is included in this course and meets at the college.
Credit hours: 10 *Contact hours: 42*

MST121 BLUEPRINT READING
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.
Credit hours: 2 *Contact hours: 3*

MST122 HYDRAULC AND PNEUMATIC PRI
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MTH103 or MTH101
Co-requisite(s): MST123

MST123 HYDRAULC AND PNEUMATIC APP
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): MTH101 or MTH103
Co-requisite(s): MST122

MST124 FURNACE COMBUSTION PRINC
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.
Credit hours: 1 *Contact hours: 1*

MST125 BASIC PUMPS
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.
Credit hours: 3 *Contact hours: 4*

MST126 PIPEFITTING PRINC AND APPLIC
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 covered.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MTH101 or MTH103

MST127 PRINCIPLES OF WELDING
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.
Credit hours: 3 *Contact hours: 3*
Co-requisite(s): MST128

MST128 WELDING LAB
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.
Credit hours: 3 *Contact hours: 6*
Co-requisite(s): MST127

MST130 ELEMENTS OF MICROPROCESS
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.
Credit hours: 4 *Contact hours: 3*
Pre-requisite(s): EST128

MST131 STATS PROCESS CTRL CHART
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): MTH101 or MTH103

MST133 PRESS WORKING FUNDAMENTALS
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.
Credit hours: 2 *Contact hours: 4*

MST134 HYDRAULIC AND PNEUMATIC SYS
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.
Credit hours: 6 *Contact hours: 8*
Co-requisite(s): MTH101 or MTH103

MST135 PLUMBNG AND PIPE CODE PRINCPLE
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.
Credit hours: 3 *Contact hours: 3*

MST136 3G WLDG CERT EXAM PREP
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): MST127 and MST128

MST137 6G WLDG CERT EXAM PREP
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.
Credit hours: 5 *Contact hours: 6*
Pre-requisite(s): MST127 and MST128

MST138 PREP GAS TUNGSTEN ARC WLDG
This lab course will provide the student with a technical understanding of gas tungsten arc welding, arc characteristics and welding safety procedures. The student will develop skills necessary to weld with pulsed current.
Credit hours: 5 *Contact hours: 6*
Pre-requisite(s): MST127 and MST128

MST139 GAS TUNGSTEN ARC WLDG TITAN
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): MST138

MST221 MECHANICAL DRIVE COMPON
The study of bearings, shafts, couplings, cams, brakes, gear drives, belt drives, chain drives and clutches. Included are component application and maintenance.
Credit hours: 3 *Contact hours: 4*

MST223 HYDRAULC AND PNEUMATC ELEC
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.
Credit hours: 2 *Contact hours: 2*

MST224 DIMENSIONAL METROLOGY
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.
Credit hours: 2 *Contact hours: 3*

MST225 DC CRANE CONTROL
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.
Credit hours: 1 *Contact hours: 1*

MST226 TUNGSTEN INERT GAS WELD
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): MST128 and MST127

MST227 METALLIC INERT GAS WELD
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): MST127 and MST128

MST228 SHIELDED METAL ARC I
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): MST127 and MST128

MTC121 MED TRANS/TERM I
Transcription of dictated medical reports organized by body system and workbook exercises also organized by body system. Emphasis on the development of accuracy and medical knowledge for the transcription of office notes, letters, operative reports, discharge summaries, procedure reports, history and physical examination reports, emergency room notes and neuropsychological evaluations. Utilizing reference materials and other resources effectively; proofreading and editing techniques. Understanding professional and confidentiality issues in medical transcription.
Credit hours: 5 *Contact hours: 8*
Co-requisite(s): BIO123 and BIO125 and OAD121

MTC122 MED TRANS/TERM II
Transcription of dictated medical reports with emphasis on the development of accuracy and medical knowledge for the transcription of office notes, operative reports, discharge summaries, procedure reports, radiology reports, history and physical examination reports and autopsy reports. Utilizing reference materials and other resources effectively; proofreading and editing techniques; grammar and punctuation review. Completion of written exercises designed to help students achieve an integrated understanding of the multifaceted world of medicine.
Credit hours: 5 *Contact hours: 8*
Pre-requisite(s): MTC121
Co-requisite(s): BIO124 and OAD129

MTC123 ADV MED TRANSCRIPTION
Transcription of dictated medical reports with emphasis on the development of accuracy and medical knowledge for the transcription of operative reports, discharge summaries, radiology reports, history and physical examination reports, pathology reports. Utilizing reference materials and other resources effectively; proofreading and editing techniques; grammar and punctuation skill building. Thirty-six-hour practicum in a medical transcription setting for students meeting established criteria.
Credit hours: 3 *Contact hours: 6*
Pre-requisite(s): MTC122
Co-requisite(s): BIO222

MTH100 COLLEGE MATHEMATICS
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, measurement, data analysis, introductory algebra and signed numbers.
Credit hours: 4 *Contact hours: 4*

MTH101 INTRODUCTION TO ALGEBRA
Topics are signed numbers and variable expressions, solving equations and inequalities, polynomials, factoring, algebraic fractions, graphs and linear equations.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MTH100 or MTH103 or CAL103

MTH103 ELEMENTS OF ALGEBRA
This course integrates arithmetic and algebra. Arithmetic operations on whole numbers, fractions and decimals are studied as signed numbers. Percentages, ratios and proportions, and application problems are covered. Other topics include variable expression, solving equations and inequalities, polynomials, factoring, algebraic fractions, graphs and linear equations.
Credit hours: 5 *Contact hours: 5*
Pre-requisite(s): MTH100

MTH123 INTERMEDIATE ALGEBRA
Topics are fundamental operations of algebra, functions and graphs, systems of linear equations, factoring, fractions and quadratic equations.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MTH101 or MTH103

MTH125 COLLEGE ALGEBRA
Study of linear, quadratic and absolute value equations and inequalities, graphs of elementary functions and non-functions, 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. TAG approved course - OMT001 effective Summer 2008.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MTH101 or MTH103

MTH126 PRECALCULUS
Study of linear and quadratic equations, their applications, solving rational and radical equations, complex numbers, linear, polynomial and rational inequalities, equations and inequalities involving absolute value, graphs of equations, relations and functions, transformation of functions, combining functions and composite functions, inverse functions, exponential and logarithmic functions and equations, angles and their measure, right angle trigonometry, trigonometric functions of any angle, graphs of trigonometric ratios, inverse trigonometric functions, trigonometric identities and equations, sum, difference, double angle, half angle, product to sum and sum to product formulas, applications of trigonometric functions, matrices and determinants; the conic sections. TAG approved course - OMT002 effective Summer 2008.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MTH125 or MTH121

MTH128 TRIGONOMETRY
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.
Credit hours: 1 *Contact hours: 1*
Co-requisite(s): MTH125

MTH221 CONCEPTS OF CALCULUS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): MTH122

MTH222 STATISTICS
Presents statistical techniques and methods. Graphical and tabular presentation of data, descriptive statistical parameters, probability concepts, statistical distributions, sampling, estimation and hypotheses testing and correlation. TAG approved course - OMT010 effective Fall 2005.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): CAL103 or MTH121 or MTH122 or MTH101 or MTH100 or MTH125

MTH223 ANALYTIC GEOMETRY-CAL I
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. TAG approved course - OMT005 effective Fall 2005.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): MTH122

NUR121 FUND CONCEPTS IN NURSING
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. TAG approved course - OHL011 effective Fall 2005.
Credit hours: 6 *Contact hours: 12*

NUR122 NURSE CARE CHILDBEAR FAM
This course focuses on nursing care of the child-bearing family. New trends in maternity-child nursing are included. TAG approved course - OHL012 effective Fall 2005.
Credit hours: 4 *Contact hours: 8*
Pre-requisite(s): BIO122 and CHM122 and ENG124 and NUR221

NUR123 NURSING CARE OF CHILDREN
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. TAG approved course - OHL012 effective Fall 2005.
Credit hours: 4 *Contact hours: 8*
Co-requisite(s): NUR122

NUR201 TRANSITION FOR LPNS
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.
Credit hours: 5 *Contact hours: 9*

NUR221 NUR CARE PERSON/ALT I
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. TAG approved course - OHL011 effective Fall 2005.
Credit hours: 6 *Contact hours: 12*
Pre-requisite(s): BIO121 or BIO123 and CHM121 and NUR121 and PSY121

NUR222 NUR CARE PERSON/ALT II
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. TAG approved course - OHL013 effective Fall 2005.
Credit hours: 8 *Contact hours: 16*
Pre-requisite(s): PSY123

NUR223 NUR CARE PERSON/ALT III
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. Tag approved course- OHL013 effective Fall 2005.
Credit hours: 8 *Contact hours: 18*
Pre-requisite(s): NUR222

NUR224 NURSING SEMINAR
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): BIO221 and NUR222 and SOC121
Co-requisite(s): NUR223

NUR225 TRANSITION FOR THE PARAMEDIC
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.
Credit hours: 6 *Contact hours: 10*

OTA121 FOUNDATIONS OF OT
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.
Credit hours: 3 *Contact hours: 4*

OTA122 THERAPEUTIC MEDIA
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.
Credit hours: 3 *Contact hours: 6*
Co-requisite(s): OTA121

OTA123 PSYCHOSOCIAL ASPECTS OT
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): OTA122 and PSY221 and PSY121
Co-requisite(s): OTA124

OTA124 PSYCHOSOCIAL CLINICAL EX
Skill development in group processes and didactic interactions. Supervised work experience and interactions with persons who have psychological dysfunctions.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): OTA121
Co-requisite(s): OTA123

OTA221 DEVELOP ASPECTS IN OT
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): OTA121 and BIO123 or BIO122

OTA222 DEV CLINICAL EXPERIENCE
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): BIO123 or BIO122 and OTA124

OTA223 LIFE SPAN DEVELOPMENT
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.
Credit hours: 5 *Contact hours: 5*
Pre-requisite(s): ENG124 or ENG105

OTA224 OT IN PHYSICAL DYSFUN
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.
Credit hours: 4 *Contact hours: 4*
Pre-requisite(s): OTA124
Co-requisite(s): BIO124

OTA225 PHYS DYSFUNTION CLINIC
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.
Credit hours: 3 *Contact hours: 5*
Pre-requisite(s): OTA222
Co-requisite(s): OTA224

OTA226 OT ASST SEMINAR
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): OTA224 and OTA225

OTA227 CLINICAL APPLICATIONS I
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.
Credit hours: 3 *Contact hours: 40*
Pre-requisite(s): OTA224 and OTA225
Co-requisite(s): OTA226

OTA228 CLINICAL APPLICATIONS II
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.
Credit hours: 3 *Contact hours: 40*
Pre-requisite(s): OTA224 and OTA225
Co-requisite(s): OTA226

PHL122 ETHICS
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.
Credit hours: 3 *Contact hours: 3*

PHY101 PRINCIPLES OF PHYSICS
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): MTH101 or MTH121 or MTH103 or MTH125

PHY121 PHYSICS I
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.
Credit hours: 4 *Contact hours: 5*
Co-requisite(s): MTH121 or MTH125 or MTH128

PHY122 PHYSICS II
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): PHY121 and MTH121 or MTH125 or MTH128

PSC121 POLITICAL SCIENCE
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.
Credit hours: 3 *Contact hours: 3*

PSD101 STUDENT SUCCESS PUB SRVS SEM
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 successful.
Credit hours: 1 *Contact hours: 2*

PSY121 GENERAL PSYCHOLOGY
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): IDS102

PSY122 PSYCHOLOGY OF ADJUSTMENT
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.
Credit hours: 3 *Contact hours: 3*

PSY123 HUMAN GROWTH AND DEVELOP
A study of normal physical, mental, emotional and social development and changes in the development of the individual from prenatal to old age.
Credit hours: 3 *Contact hours: 3*

PSY124 PSYCHOLOGY OF WORK
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.
Credit hours: 3 *Contact hours: 3*

PSY125 CHILD DEVELOPMENT
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.
Credit hours: 3 *Contact hours: 3*

PSY221 ABNORMAL PSYCHOLOGY
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 issues. TAG approved course OSS017 - effective Fall 2005.
Credit hours: 3 *Contact hours: 3*

PSY222 PSY ASPECT OF THERAPY
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.
Credit hours: 3 *Contact hours: 3*

PTA121 FUNDAMENTALS OF PT
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.
Credit hours: 4 *Contact hours: 5*

PTA122 MUSCULOSKELTAL ANATOMY
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.
Credit hours: 4 *Contact hours: 5*
Co-requisite(s): BIO123 or BIO122

PTA123 KINESIOLOGY
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): PHY101 and PTA122
Co-requisite(s): PTA221

PTA124 MST PROCEDURES FOR PTA
The student will learn data collecting and documentation for therapeutic measurement skills including goniometry and manual muscle testing.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): PTA123 and PTA221

PTA125 PROF CLIN PRACT FOR PTA
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): PTA123 and PTA221

PTA221 PTA PROCEDURES I
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.
Credit hours: 5 *Contact hours: 7*
Pre-requisite(s): PTA122
Co-requisite(s): PTA123

PTA222 PTA PROCEDURES II
This course will present to the students the impairments, disabilities, functional limitations, and interventions of selected musculoskeletal, rhematological and cardiovascular conditions including spinal disorders and amputation. Also included, will be an overview of CNS anatomy, physiology, and pathology, sensory integration, motor development and motor control. Laboratory activities, written assignments and competencies, are required components of this course. Students will perform selected therapeutic interventions with patients under direct PT/PTA supervision as part of laboratory component of this course.
Credit hours: 5 *Contact hours: 7*
Pre-requisite(s): PTA124 and BIO124 and PTA125
Co-requisite(s): PTA228 and PTA229

PTA223 PTA PROCEDURES III
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.
Credit hours: 2 *Contact hours: 3*
Pre-requisite(s): PTA222

PTA226 FUNCTIONAL ANATOMY
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.
Credit hours: 4 *Contact hours: 5*
Pre-requisite(s): BIO123 or BIO122

PTA227 DIRECTED PRACTICE III
Selected clinical experience in various physical therapy settings under direct supervision. Grading: Credit/Fail
Credit hours: 3 *Contact hours: 15*

PTA228 SEMINAR I
Presentation of topics related to clinical practice to include ethics and professional development.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): PTA124 and PTA125
Co-requisite(s): PTA222 and PTA229

PTA229 DIRECTED PRACTICE I
Clinical experience in various physical therapy departments under direct supervision. Grading: Credit/Fail
Credit hours: 3 *Contact hours: 16*
Pre-requisite(s): PTA124 and PTA125
Co-requisite(s): PTA222 and PTA228

PTA230 SEMINAR II
Presentation of diverse clinical issues and approaches to patient management.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): PTA222 and PTA228 and PTA229

PTA231 DIRECTED PRACTICE II
Clinical experience in various physical therapy departments under direct supervision. Grading: Credit/Fail
Credit hours: 2 *Contact hours: 10*
Pre-requisite(s): PTA229

RCT121 INTRO TO RC PROCEDURES
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.
Credit hours: 3 *Contact hours: 4*

RCT122 MED GAS ADMINISTRATION
An introduction to the basics of oxygen administration, aerosol and humidification therapy.
Credit hours: 3 *Contact hours: 4*

RCT123 AIRWAY MANAGEMENT PROCED
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): RCT121 and RCT122

RCT124 PHARMACOLOGY FOR RT
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.
Credit hours: 2 *Contact hours: 2*
Pre-requisite(s): BIO123 or BIO122 and RCT121 and RCT122
Co-requisite(s): RCT123

RCT125 CLINICAL PRACTICE BP/SEM
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.
Credit hours: 3 *Contact hours: 17*
Pre-requisite(s): RCT121 and RCT122

RCT126 INTRO TO CRITICAL CARE
An orientation to the principles related to the care of the critically ill patient with an emphasis on mechanical ventilation.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): RCT123 and RCT124

RCT127 CARDIOPULMONARY A AND P
An orientation to the anatomy and physiology of the respiratory system and the cardiac system.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): BIO123 or BIO122 and RCT123 and RCT124

RCT128 CLIN PRACT-AIRW MGT/SEM
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.
Credit hours: 2 *Contact hours: 9*
Pre-requisite(s): RCT123 and RCT124 and RCT125

RCT221 ADVANCE RT PROCEDURES
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.
Credit hours: 3 *Contact hours: 4*
Pre-requisite(s): RCT126 and RCT127

RCT222 RESPIRATORY DISEASES
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): RCT124 and RCT127

RCT223 PATIENT ASSMNST AND MONITOR
Exposure to various procedures and techniques associated with the monitoring and evaluation of the patient with cardiopulmonary disease.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): RCT221 and RCT222

RCT224 CLIN PRAC CRIT CARE/SEM
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.
Credit hours: 3 *Contact hours: 17*
Pre-requisite(s): RCT124 and RCT126 and RCT128 and RCT127

RCT225 CLIN PRACT SPEC ROT/SEM
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 examinations prior to graduation from the program.
Credit hours: 5 *Contact hours: 25*
Pre-requisite(s): RCT127 and RCT221 and RCT222 and RCT224

SOC121 SOCIOLOGY
Introduces the general theories of the field, stressing the impact of groups and institutions on social behavior. Examines factors that contribute to cultural change, social problems/issues and social interaction. TAG approved course - OSS021 effective Spring 2007.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): IDS102

SOC122 SOCIETY AND TECHNOLOGY
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.
Credit hours: 3 *Contact hours: 3*

SOC123 DYNAMICS OF THE FAMILY
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.
Credit hours: 3 *Contact hours: 3*

SOC124 US SOCIAL SYSTEMS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): SOC121

SOC125 INTRO TO GERONTOLOGY
Presents a basic understanding of the historical, cultural, biological, physiological, psychological, and social contexts of aging. Addresses the changes that occur within the aging individual, how these changes influence interactions with social and physical environments, and how the older person, in turn, is affected by these interactions. Includes a discussion of age-related changes in anatomy and physiology, socialization, personality, intelligence, sensation, social support, economics and retirement, death and dying, and crime and fraud.
Credit hours: 3 *Contact hours: 3*

SOC126 PSYCHOSOCIAL ASPECT AGING
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.
Credit hours: 3 *Contact hours: 3*

SOC221 SOCIAL PROBLEMS
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): SOC121

SOC222 JUVENILE DELINQUENCY
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): SOC121

SOC225 CULTURAL DIVERSITY
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.
Credit hours: 3 *Contact hours: 3*

SOC227 SOCIAL SERV FOR ELDERLY
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.
Credit hours: 3 *Contact hours: 3*

SWK121 INTRO TO SOCIAL WELFARE
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.
Credit hours: 3 *Contact hours: 3*

SWK124 METHODS IN PRACTICE I
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): SWK121

SWK125 SUBSTANCE ABUSE
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.
Credit hours: 3 *Contact hours: 3*

SWK126 HUMAN BEHAVIOR & SOC ENV
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.
Credit hours: 3 *Contact hours: 3*

SWK127 GROUP PROCESSES
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.
Credit hours: 3 *Contact hours: 3*

SWK128 INTRO TO GERONTOLOGY
Presents a basic understanding of the historical, cultural, biological, physiological, psychological and social contexts of aging. Addresses the changes that occur within the aging individual, how these changes influence interactions with social and physical environments, and how the older person, in turn, is affected by these interactions. Includes a discussion of age-related changes in anatomy and physiology, socialization, personality, intelligence, sensation, social support, economics and retirement, death and dying, and crime and fraud.
Credit hours: 3 *Contact hours: 3*

SWK129 PSYCHOSOCIAL ASPECT AGIN
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 arrangements and death and dying.
Credit hours: 3 *Contact hours: 3*

SWK130 METHODS IN PRACTICE II
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): SWK124

SWK131 EXPLRG THE HUMAN & SOCIAL PROF
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.
Credit hours: 1 *Contact hours: 1*

SWK224 POVERTY IN THE US
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.
Credit hours: 3 *Contact hours: 3*
Pre-requisite(s): SOC121 or SWK121

SWK225 VICTIM AND CRISIS INTERVENTION
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.
Credit hours: 3 *Contact hours: 3*

SWK226 SOCIAL SERVICE LAW
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.
Credit hours: 3 *Contact hours: 3*

SWK227 SOCIAL SERVICE PRACTICUM
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.
Credit hours: 2 *Contact hours: 14*
Pre-requisite(s): SWK124 or SWK224 or SWK126
Co-requisite(s): SWK228

SWK228 PRACTICUM SEMINAR
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.
Credit hours: 1 *Contact hours: 1*
Pre-requisite(s): SWK124 and SWK224 and SWK126
Co-requisite(s): SWK227

SWK230 SOCIAL SERV FOR ELDERLY
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.
Credit hours: 3 *Contact hours: 3*

SWK231 HUMAN & SOCIAL SERVCE PRAC/SEM
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.
Credit hours: 3 *Contact hours: 15*
Pre-requisite(s): SWK224 and SWK126

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Notes

Notes

STARK STATE COLLEGE PROGRAMS

ARTS AND SCIENCES DIVISION

Associate of Arts Degree
Associate of Science Degree
Associate of Technical Studies Degree
Biotechnology Degree
Computational Science
Technical Communications Degree

BUSINESS AND ENTREPRENEURIAL STUDIES DIVISION

Accounting Technology
- *Accounting Services for Health Administration Option*
- *CPA Option*
- *Computer Information Option*
- *Corporate Option*
- *Forensic Accounting Option*
- *Tax Option*
- *One-Year Certificates*
- *Banking Associate*
- *Bookkeeping*
- *Enrolled Agent*
- *Fundamental Payroll*

Administrative Office Professional Technology
- *Management Option*
- *Virtual Office Professional Option*
- *One-Year Certificate*
- *Administrative Office Professional*

Automotive and Transportation Technology
- *Comprehensive Automotive Program*
- *General Motors ASEP*
- *Special Non-Degree Automotive Programs*
- *Comprehensive One-Year Accelerated*
- *Comprehensive Automotive Program*
- *Honda Pact*
- *Toyota T-Ten*
- *GM STC*
- *ACDelco*
- *CAT Lift Truck*

Business Management Technology Degree
- *Business @ A Distance – Online Option*
- *Entrepreneurship Option*
- *Finance Option*
- *Health Services Option*
- *International Business Option*
- *KSU Stark - BBA Degree Option*
- *Small Business Option*
- *Trine University Transfer Option*

Corporate Finance Technology
Information Reporting Technology
- *Broadcast Captioning Option*
- *Judicial Reporting Option*
- *Realtime Transcription Option*
- *Scopist Option*

Legal Assisting Technology Degree
- *One-Year Certificate*
- *Legal Assisting*

Marketing Management Technology Degree
- *E-Commerce Marketing Option*
- *Logistics Option*
- *Sales Option*

ENGINEERING TECHNOLOGIES DIVISION

Applied Industrial Technology Degree
- *One-Year Certificates*
- *CNC Technical*
- *Welding*

Civil Engineering Technology Degree
- *Architectural Option*
- *Construction Management Option*

Design Engineering Technology Degree
Electric Power Utility Technology Degree
- *Line Worker Technician Option*
- *Substation Technician Option*

Electrical Engineering Technology Degree
- *Electro-Mechanical Option*

Electrical Maintenance Technology Degree
- *One-Year Certificates*
- *Automation and Robotics*
- *Predictive and Preventive Maintenance Technology*
- *Wind Turbine Maintenance Technology*

Electronic Engineering Technology Degree
Environmental, Health and Safety Technology Degree
- *One-Year Certificate*
- *Sustainable/Alternative Energy Technology*

Heating, Ventilation and Air Conditioning Technology Degree
- *One-Year Certificate*
- *HVAC*

Mechanical Engineering Technology Degree
- *Fuel Cell Technology Option*

HEALTH SCIENCES DIVISION

Dental Assisting Degree
Dental Hygiene Degree
Dietary Manager Degree
Emergency Fire Services Degree
Emergency Medical Services Degree
- *One-Year Certificate*
- *Paramedic*

Expanded Functions Dental Auxiliary
Health Information Management Technology
- *One-Year Certificate*
- *Medical Coding*
- *Medical Transcription*

Massage Therapy Degree
- *One-Year Certificate*
- *Massage Therapy*

Medical Assisting Degree
- *One-Year Certificate*
- *Medical Coding*
- *Medical Transcription*

Medical Instrument Sterilization Technology
- *One-Year Certificate*
- *Medical Instrument Sterilization Technology*

Medical Laboratory Technology Degree
Nursing Degree
- *ADN*
- *RN Completion for LPN*
- *RN Completion for Paramedics*

Occupational Therapy Assistant Technology Degree
Physical Therapist Assistant Technology Degree
Respiratory Care Technology Degree

INFORMATION TECHNOLOGIES DIVISION

Commercial Music Technology Degree
Computer Engineering Technology Degree
Computer Graphic Arts Technology Degree
- *Digital Photography Option*

Computer Network Administration and Security Technology Degree
- *CISCO Network Administration Option*
- *UNIX/LINUX Database Administration Option*

Computer Programming and Database Technology Degree
- *One-Year Certificate*
- *Database Technology*

Computer Science and Engineering Technology Degree
- *Video Game Design and Development Option*

Cyber Security and Computer Forensics Technology Degree
- *Digital Forensics Option*

Digital Video and Media Technology Degree
Geographic Information Systems Technology
Homeland Security Information Technology
Management Information Systems Degree
- *Help Desk/Computer Support Specialist Option*
- *Medical Informatics Option*
- *Microsoft Certified Application Specialist Option*
- *One-Year Certificates*
- *Computer Maintenance/Desktop Support Technician*
- *Internet and Computing Core*

3D Graphics and Animation Technology Degree
Web Design and Development Technology Degree
- *Microsoft Certified Technology Specialist Option*
- *Web Design Option*
- *Web Server Administration Option*
- *One-Year Certificates*
- *Microsoft Certified Technology Specialist*
- *Microsoft Certified Technology Specialist-Advanced Web Design*

PUBLIC SERVICES DIVISION

Early Childhood Education Degree
- *Intervention Specialist Option*
- *One-Year Certificate*
- *Administrator Certificate for Early Childhood Professionals*

Education
- *One-Year Certificate*
- *American Sign Language*

Human and Social Service Technology Degree
- *Gerontology Option*
- *One-Year Certificate*
- *Law Enforcement Academy*

STARK STATE COLLEGE

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