STARK STATE COLLEGE

Changing Lives … Building Futures

Business Technologies

Engineering Technologies

General Studies

Health Technologies

Information Technologies

Public Service Technologies

CATALOG 2003-2005

Stark State College

Changing Lives ... Building Futures

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

A student accepted into a specific technology, 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 head because program requirements may change.

Open Door Policy

Access to Ohio's state-assisted colleges must be assured for every person who wants and can benefit from higher education. Stark State College of Technology 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 technology 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 technology.

NOTICE TO STUDENTS: Due to the high cost of printing, the College can only provide students with one catalog free-of-charge. Please do not lose or destroy this catalog. It is to your benefit to make this Catalog your primary reference, retain it and make helpful notes in it.

Stark State College is committed to equal opportunity for all and does not discriminate on the basis of race, color, religion, ancestry, national origin, gender, age, disability or veteran's status.

STARK STATE COLLEGE

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

For our most current class schedule: ***www.starkstate.edu***

STARK STATE COLLEGE OF TECHNOLOGY

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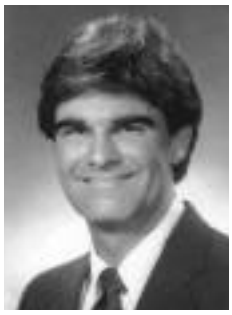

MICHAEL
THOMAS, D.D.S.

MICHAEL J. HILL

CHRISTOPHER J.
MAURER

Mission Statement

Stark State College of Technology provides accessible, quality associate degree programs, training and lifelong education in a diverse and supportive learning environment to foster success in a dynamic global economy.

Vision Statement

The vision of Stark State College of Technology is to be the premier college of technology, a key community partner and leader in education for the 21st century and beyond.

Student Outcomes Assessment

Stark State College is committed to a process of assessment and validation of student learning through which programs of study are continually updated and improved. The College subscribes to development of the following competencies within all degree programs:

- written and oral communications
- computational skills, encompassing mathematical operations and data analysis
- computer applications
- critical thinking skills
- professionalism

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Dear Prospective Student:

I have had the pleasure and the privilege to serve as president of Stark State College for 20 years. During that time, I've watched our college grow from a technical school to a well-respected institution of higher learning; educating leaders who are on the cutting edge of technology in their respective fields of study. Whether it be in business, health care, engineering technologies, information technologies or public service, just look around you, because you'll find Stark State College graduates everywhere! Employers seek our graduates; they do so because at Stark State College, we are committed to providing the best education possible to meet the needs of a technologically sophisticated global economy. We do that by meeting the educational needs of our students, as well as meeting the demands for workforce training by our community. *At Stark State College, we're training the employees of today, as well as the employees of tomorrow.*

The educational choices you make in life may be the driving force toward shaping your future. With the rapid changes in technology affecting almost every aspect of our personal and professional lives, it is imperative that everyone prepare for the technological challenges ahead. Your selection of Stark State College could mean the difference in preparing you for a future filled with promise and job security. We believe that your selection of Stark State College will help secure that future.

We're proud of our College. We're proud of the quality of education and training we provide. We're proud of the Stark State College faculty, who not only have excellent credentials and teaching skills, but also combine those qualities with professional experience in their fields of expertise. We're proud to equip our classrooms and laboratories with state-of-the-art equipment.

But, most of all, we're proud of our commitment to excellence which we believe will pay dividends for you, our students, in the future. Whether you choose to seek a certificate, an associate's degree or perhaps continue on for your bachelor's degree, you will have the advantage of a solid high-tech education that is relevant and marketable in today's high-tech world.

The administration, faculty and staff of Stark State College welcome you. We're proud to serve you and we're excited about the future and the challenges that lie ahead, because at Stark State College *we're changing lives and building futures … your future!*

John J. McGrath

President
Stark State College

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Vice President for
Business and Finance

Elaine A. Pontillo, Ph.D.
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and Corporate Services

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and Administrative
Services

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Vice President for
Advancement and
Student Services

The College Profile

STARK STATE COLLEGE OF TECHNOLOGY

A Reputation For Excellence

Stark State College is a state-assisted college of technology offering associate degree programs, competency credentialing, continuing education, contract training and other opportunities for lifelong learning. Founded in 1960, Stark State provides an excellent education that prepares students for rewarding careers in business technologies, engineering technologies, health technologies, information technologies and public service technologies.

Stark State College is committed to providing the best education possible to meet the needs of a technologically sophisticated global economy. With experienced faculty, modern facilities and a belief in developing the skills of the individual, Stark State is positioned to provide a high-quality, high-tech education at affordable cost.

The College offers developmental education courses and tutorial services to strengthen basic skills and assist students in their learning.

Financial aid is available to students who qualify. The College's knowledgeable financial aid specialists help students explore the many grants, loans and scholarships that can help them finance their education.

The College provides the competitive edge in today's high-tech world by enabling students to attain their educational goals with a full schedule of credit and continuing education classes. In addition, Stark State's Division of Corporate and Community Services provides customized contract training programs to area employers.

Stark State College has earned a reputation for excellence among local businesses and industries. This reputation for excellence has helped Stark State become the largest college in Stark County – with more than 5,200 credit and over 2,500 non-credit students.

The College has played a vital role in the economic growth and development of the greater Stark County area through its strong tradition of providing educational and training services to employers and residents.

Stark State College of Technology is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools.

In addition, many individual technologies are accredited and licensed by their professional accrediting associations and organizations.

Stark State's beautiful campus is conveniently located off I-77 to serve students commuting from Stark, Summit, Tuscarawas, Portage, Carroll, Holmes, Wayne, Medina and Columbiana counties. Stark State College provides access to education for students of all ages and backgrounds.

ADVISORY COMMITTEES

Each of the technology programs at Stark State is developed and kept current through the efforts of advisory committees. Comprised of outside leaders in that particular field, members of advisory committees share their expertise and experience with College faculty and staff to help keep the curricula current and relevant. Every degree program seeks the guidance of its advisory committee whenever a new program is developed and when an existing program needs to be modified or updated. With regular input from our advisory committees, Stark State College assures that the education students receive is current, relevant and independently validated.

Accreditations

STARK STATE COLLEGE OF TECHNOLOGY 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 Technology Accreditations

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

Health Technology Accreditations

DENTAL HYGIENE PROGRAM *The dental hygiene program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education:* Commission on Dental Accreditation, 211 E. Chicago Avenue, Chicago, IL 60611 • 312-440-4653

HEALTH INFORMATION TECHNOLOGY *The health information technology program is accredited by the Commission on the Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the American Health Information Management Association's Council on Accreditation:* CAAHEP, 35 E. Wacker Drive, Suite 1970, Chicago, IL 60601-2208 • 312-553-9355

MASSAGE THERAPY CERTIFICATE PROGRAM - ASSOCIATE OF TECHNICAL STUDIES IN MASSAGE THERAPY *Approved by the State Medical Board of Ohio:* State Medical Board of Ohio, 77 S. High Street, 17th Floor, Columbus, OH 43266 • 614-466-3934

MEDICAL ASSISTING *The Commission on Accreditation of Allied Health Education Programs (CAAHEP) grants accreditation to programs in Medical Assisting upon recommendation of the Curriculum Review Board:* 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), a sponsor committee of the CAAHEP system, 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), 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415 • 773-714-8880

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, 61 Broadway, 33rd Floor, New York, NY 10006 • 800-669-1656.

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:* Committee on Accreditation for Respiratory Care, 1248 Harwood Road, Bedford, TX 76021-4244 • 817-283-2835

Engineering Technology 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 • Telephone 410-347-7700 • ***www.abet.org***

Public Service Technologies 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***

Admission to the College

All individuals interested in pursuing an education at Stark State College of Technology are welcome to apply. A candidate working toward an associate's 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 will be mailed upon request or can be picked up at the Office of Admissions/Student Services.

ADMISSION PROCEDURES

Credit classes begin each August. Applications, however, are accepted throughout the year. 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 Registration 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 (non-credit) 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 seeking admission to a health technology program must complete a separate health application.

After these steps have been completed, the application will be processed and the applicant will be notified of the results.

STUDENT ACCESS WEB SITE

Students can now register for classes, monitor their financial aid and make tuition payment via the Web using this interactive and secure Web site.

The Student Access Web site is a one-stop resource where students can:

- search for course offerings and view course descriptions and prerequisites,
- register for classes and drop/add classes,
- pay tuition and fees on-line using a credit card,
- view their financial aid awards,
- view their class schedule and tuition information,
- use Degree Audit to monitor progress toward a degree, and perform "what ifs" on changing their academic major,
- view your grades, and
- view the Web Student Access Guide for an overview of the capabilities and more information about the Web site.

To access the Student Access Web site go to ***www.starkstate.edu/student***. Click on Web Student Access Guide for information about the Web site. Students can also access the Student Access Web site by clicking on the Student Access link in the Resources For Students drop-down box on the College's Internet site at ***www.starkstate.edu***. The Student Access Web site is accessible daily between 7 a.m. and 10 p.m.

The Resources For Student drop-down box on the College's home page (***www.starkstate.edu***) has links to a wealth of other information on resources and activities for students including student email.

Note: *NEW students must enroll in-person for classes.*

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. Grades of at least "C" quality must have been earned in any course to permit acceptance of credit. Transcripts are not automatically evaluated for transfer of credit. A specific request must be made with the Office of Admissions/Student Services for transcript evaluation prior to admission to the College.

INTERNATIONAL STUDENT ADMISSIONS

Stark State College of Technology 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 proved 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.

FULL-TIME STUDENT

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

PART-TIME STUDENT

Any person meeting the qualifications for admission to the College may enroll as a 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 enrolled 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 Registration Office.

ACADEMIC ADVISING

The academic advising process at Stark State College of Technology 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. 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.

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.

EARLY ALERT

Any student whose work is unsatisfactory (below "C" level) will receive an "early alert" letter from the Registration Office during the beginning of the sixth week of the semester to help the student improve his/her academic performance. The letter will advise the student to consult with his/her instructor, who may assist the student in improving academic performance and/or refer him/her to appropriate support services. The "early alert" letter is *not* part of the student's permanent academic record.

LEARNING SUPPORT SERVICES

Learning Support Services provides a variety of instructional and counseling support programs to assist students, faculty and staff in achieving their academic, career and personal goals here at Stark State College. The following services are offered:

Aspire to Achieve

Each semester, a calendar is available to Stark State students and employees that announces seminars to be offered. All seminars are free and provide participants with information or skills that will assist them with their academic success.

BRIDGE (Building Relationships, Integrating Divisions, Generating Excellence)

BRIDGE is a faculty team that conducts the College in-class portion of the assessment program and creates on-going opportunities for faculty development. Each semester, certain faculty members participate with their students in activities to assess students' general skill levels and to assist teachers in improving in general skills instruction across all divisions of the College. These activities are held in a sampling of all departmental classes; therefore, students may participate in one or more of these sessions during their time at Stark State.

CAL Lab (Center for Accelerated Learning)

CAL helps students meet their academic goals by providing a collection of educational services in a comfortable setting. These services include computer-based instruction and tutorials, video instruction, word processing, peer and faculty tutoring, and Internet access. Instructional technicians are available to assist students. All services are designed to directly support selected courses for both students and faculty. There are no charges or appointments for using the CAL Lab.

Computer-Based Testing Center

Some courses provide students with computer based testing. This allows students in those courses to take tests outside of class in the Testing Center within a timeframe of usually three to four days. This service allows for more instructional time in class and also provides the students with an opportunity to become familiar with this technology. This is an additional advantage for students, as many licensure exams are now computer-based.

Displaced Homemakers

The Displaced Homemaker Program offers assistance with the college admission process, enrollment, and book funds through a grant from The Ohio Board of Regents. A "displaced homemaker" is a person who is widowed, separated, divorced, married to a person with a disability, or a single parent.

FLEX (Foundations for Learning EXcellence)

FLEX is a three-credit-hour course offered through Learning Support Services that includes language, math and college success skills. Students who will benefit from a rigorous, intensive brush-up in these areas are encouraged to enroll in the FLEX course. At the end of the semester, students will be assessed as to basic competencies, with the possibility of testing out of basic skills courses in math, English and reading.

Returning to Learning Workshop

To address the concerns of students returning to an academic environment, Learning Support Services offers transitional support through the "Returning to Learning Workshop." Participants attend three sessions, which assist with the admissions and enrollment process, stress and time management within the framework of being a college student, and classroom success skills.

"The Sounding Board" Educational Counseling

Students and Stark State employees may receive free short-term educational counseling services through the Learning Support Services Office. Facilitators provide counseling, crisis intervention, and support groups for issues which affect academic and professional success. Information of specific personal needs is addressed in special-topic focus groups throughout the year.

Since Learning Support Services is a part of the instructional arm of the College, innovations in programming, such as summer workshops to assist in preparing for college entry, are provided as a means of consistently enriching the support offerings at Stark State College.

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 of Technology, 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 330-966-5450 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 330-966-5450 for additional information.

Area high school students enrolled in vocational and technical programs may qualify for advance placement at Stark State College of Technology. Please call our Office of Admissions/Student Services at 330-966-5450 for more information.

REPEATING A COURSE

If a student repeats a course, the first grade received remains on the student's record. However, the second grade received is the grade of record used to determine the semester and cumulative grade point average.

EARLY COLLEGE ADMISSION POLICY

Stark State College's early college admission program is designed to provide qualified high school students with access to college-level coursework. College courses taken under the early college admission program 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 330-966-5450.

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.

ACCESS TO STUDENT RECORDS

All information entered in a student's file is available for inspection by that student upon presentation of appropriate college identification except that information described in Sections 9.411, 9.412, 9.413 and 9.414 of the *Policies and Procedures* as adopted by the Board of Trustees of Stark State College.

PROCEDURE TO INSPECT AND REVIEW RECORDS

Students may request, in writing, the opportunity to inspect and review their records. The request should be made to the registrar and must specify records to be inspected and reviewed. Requests will be granted within a reasonable period of time, but such time is not to exceed 45 days after the request has been made.

Records will be inspected and reviewed by the student in the presence of the chief administrator of the department or the student's designee. Records may not be changed or deleted during the process of inspection and review. Students shall be advised of the right to challenge and the procedure to challenge any portion(s) of the student's College record. Upon written request, the student shall be provided with a copy of that portion(s) of the student's college record subject to challenge.

HEARING TO CHALLENGE CONTENT OF RECORDS

Students shall have an opportunity for a hearing to challenge the content of their College records, to ensure that the records are not inaccurate, misleading, or otherwise in violation of the privacy or other rights of students, and to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein.

RELEASE OF STUDENT RECORDS TO EXTERNAL AGENCIES

Information will not be released from a student record or file to external agencies or persons without the express written consent of the student, except as provided by Section 438(b) (1) of *Public Law 93-380*.

DISSEMINATION OF INFORMATION CONTAINED IN SECTION 9.4

Copies of Section 9.4 (the guidelines which describe the College's policy on student records) of the *Policies and Procedures* as adopted by the Board of Trustees of Stark State College of Technology shall be made available by the Office of Admissions/Student Services to any student desiring the same.

STUDENT CONDUCT

When a student enters Stark State College of Technology, 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 RESPONSIBILITY

Each student is responsible for complying with the regulations in this catalog and with other regulations of the College. Class schedule information is a supplement to the College catalog and is also an official statement of policy.

STUDENT GRIEVANCE

Stark State College has a formal process for student grievances. The process must begin within 15 school days of the occurrence. A copy of the student grievance procedure may be obtained in the Office of Admissions/ Student Services.

GRADE APPEAL PROCEDURE

Students who wish to appeal a grade must initiate the process within 15 school days of the time the grade has been assigned. Students should first discuss the matter with the instructor. If the matter cannot be resolved, the student may initiate the formal grade appeal process. A copy of the grade appeal procedure can be obtained in the Office of Admissions/Student Services.

CIVIL RIGHTS COMPLIANCE COORDINATOR

The dean of student services serves as the Title IX and Section 504 Coordinator for Stark State College. The dean handles all student grievances in accordance with the Title IX and Section 504 regulations which incorporate appropriate due process standards and provides for the "prompt and equitable resolution of complaints" filed on the basis of sex and/or disability.

COMPUTER LAB USAGE GUIDELINES

The 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.

Copies of the complete set of *Computer Lab Usage Guidelines* are available from the Office of Admissions/Student Services or from the staff of any of the computer labs.

DISCRIMINATION GRIEVANCE PROCEDURE

Students at Stark State College who feel they are victims of discrimination on the basis of sex, disability, age, race or color may file a complaint with the College's civil rights compliance coordinator. Copies of the detailed *Grievance Procedure for Complaints Concerning Discrimination* are available to students upon request in the Office of Admissions/Student Services.

STUDENT DIRECTORY INFORMATION

The following categories of information have been designated as directory information: name; address; telephone number; major; and academic honors. The College will consider it acceptable to release this information without specific prior written student consent unless written notice is made to the Registration Office that any or all of the information designated should not be released without the student's prior consent.

SEXUAL ASSAULT POLICY/ CAMPUS CRIME ACT

At Stark State College, we take pride in the reputation we've established as a safe, secure campus. We worked hard to earn that reputation, and we will continue to work hard to maintain that reputation for the sake of our students, employees and the community. The College will not tolerate sexual assault of any kind. Sexual misconduct is socially irresponsible and violates the rights of the individual. No one has the right to assault someone else regardless of what a person says, does or wears. Sexual assault is a crime and will be dealt with accordingly.

The College has developed a policy to deal with sexual assault, including measures anyone can use to prevent or minimize their risk. For complete details on the College's policy, procedures and recommendations, as well as to review the College's overall crime statistics, please check with the campus Security Office (Room S104).

STUDENT SUBSTANCE ABUSE AND PREVENTION POLICY FOR STUDENTS

Details regarding the policy are on page 198 of this catalog and in the *Student Handbook*.

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.

CAREER PLANNING SERVICES

Career Guidance Program

Stark State College offers a career guidance program to assist individuals in clarifying their goals. The goal of the program is to help a person select a career field that is realistic, marketable and adaptable. This program is offered free of charge to students and/or anyone in the community who is undecided about career choices.

Career Center Information

As a service to students, the Career Center provides:

- 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.
- computerized career planning system (DISCOVER).

EMPLOYMENT SERVICES

Professional Work Experience

The Career Services Office works with students to help match them with employers for professional work experience opportunities. Students should have a minimum GPA of 2.00, 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 going to school. The Professional Work Experience program is offered in most of the two-year programs in the business and engineering technology divisions at Stark State.

Students interested in the professional work experience program may register by completing an application and providing a transcript and their resume. This information will be kept on file in the Career Services Office. Selection of students for employment is done through a formal interview process by the employer. For further information, contact the Career Services Office at 330-966-5459.

Resume Referral Service

Job search assistance is offered to graduates and alumni who are seeking employment. A resume referral service is available to employers who have individual positions open. Employers are also encouraged to interview potential candidates on campus during recruiting season. Potential graduates and alumni are encouraged to register with the resume referral service.

Part-time/Student Jobs

For current students, a job bulletin board is available which displays part-time and full-time student jobs.

Job Search Assistance

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

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 330-966-5450 for more information.

STUDENTS WITH DISABILITIES

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 tactual 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. Please call the Office of Admissions/Student Services at 330-966-5451 (voice or TDD) for information or to schedule an interview.

MULTICULTURAL SERVICES

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 counselor for minority recruitment and retention 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 SSCT and various community agencies.
- promotion of cultural diversity programs.

To schedule an appointment, please call the Office of Admissions/Student Services at 330-966-5450.

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. It should be noted that many family insurance plans do not cover children over the ages of 18 or 19. Information is available at the Cashier's Office and the Office of Admissions/Student Services.

TUTORING SERVICE

Successful completion of any college curriculum requires a mastery of the fundamental mathematics and language skills, as well as basic study skills. Yet, many college students lack proficiency in one or more essential areas. Stark State College will provide tutoring service at a minimal charge to students who need additional help to maintain a satisfactory average. These services are offered by the developmental education department.

FINANCIAL AID

The Financial Aid Office provides assistance with financial aid applications and filing dates, estimation of cost and needs analysis and information concerning scholarships, grants-in-aid, federal and state financial assistance programs and part-time employment.

Every student should have a sound plan for acquiring a college education, including financial arrangements, worked out well in advance. It is advisable for a student in need of financial assistance to discuss his/her situation personally with a financial aid specialist as early as possible.

Student Activities/Facilities

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: inter-club council, student clubs and other worthwhile and interesting events.

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.

WEB CT ORIENTATION (WEB-BASED COURSES)

Students enrolling in Web-based courses for the first time are urged to attend one of the WebCT Orientation sessions published each semester in the College class schedule and on the Web site. These sessions will include information about course expectations, logging on, discussion features, email and chat rooms. The sessions also provide students with "hands-on" experience with WebCT software.

STUDENT EMAIL

All Stark State College students who are registered for at least one credit course in an academic year (fall semester through summer sessions) will be provided a College email account for that academic year. Students can use their email accounts to send or receive email from any computer that has access to the Internet including a home computer or a computer in the College's open lab. All students will be assigned a permanent account name and password. To access student email, type in ***http://email.starkstate.net*** in the browser's address box or follow the links from the College's main Internet site at ***www.starkstate.edu***. All student email directories and accounts will be regenerated prior to the fall term each year. There are restrictions on the availability, capacity, duration and use of student email accounts and students are expected to abide by the College's computer use policy. For additional information please go to ***http://email.starkstate.net***.

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 of higher learning. Phi Theta Kappa provides its members with opportunities in the areas of scholarship, leadership, service and fellowship. The society has over 1.1 million alumni and more than 1,000 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 3.50. 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.

STUDENT ORGANIZATIONS

An elected inter-club council plans and coordinates extracurricular programs and social affairs for students.

The inter-club council assists the College faculty and administration in making rules and regulations by providing student opinion and advice.

SOCIAL ACTIVITIES

Stark State College offers students a wide variety of activities. Student clubs include: American Society of Mechanical Engineers (ASME); Association for Medical Laboratory Technicians (AMLT), Association of Medical Records Students (AMReS), Institute of Electrical and Electronic Engineers (IEEE), Institute of Management Accountants (IMA), Inter Club Council (ICC), International Club, Math Club, Minority Awareness Association (MAA), *Student Informer*, Ski Club, Society of Women Engineers (SWE), Stark State College Alumni Association, Stark State College Association of Medical Assisting, Stark State College Collegiate Secretaries International, Association of Information Technology Professionals, Society of Manufacturing Engineers, American Society of Civil Engineers, American Society of Highway Engineers, Stark State College Human Services Technology Student Club, Student Nurse Association-Stark State College (SNA-SSC), Student Occupation Therapy Assistants Club (SOTA), Student Physical Therapist Assistant Club (SPTA) and other clubs associated with professional organizations.

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, 7:30 a.m. to 5 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. Pre-registration forms are available from the Office of Admissions/Student Services or phone the preschool at 330-499-0909.

STARK CAMPUS LIBRARY

Stark State College of Technology and Kent State University Stark Campus share a campus library (the Learning Resource Center – LRC) to serve the needs of students at both institutions. In addition to in-house book, periodical, reference, video and CD holdings, the library offers students online access to the Internet, Kent State University's main library and all branch libraries, as well as access to many university libraries through OhioLINK. During academic semesters, the library is open Monday through Thursday from 8 a.m. to 10 p.m., Friday from 8 a.m. to 5 p.m., Saturday from 9 a.m. to 3 p.m., and Sunday from 1 p.m. to 5 p.m. During academic breaks, the library is open Monday through Friday from 8 a.m. to 5 p.m. Please 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.

DENTAL HYGIENE CLINIC

As part of the dental hygiene degree program, Stark State College operates a Dental Hygiene Clinic that provides a full range of preventive services, including dental examinations, cleaning and polishing of teeth, oral health instruction, x-rays, fluoride treatments, sealants and more.

The Dental Hygiene Clinic has 10 state-of-the-art operatory stations equipped with the latest dental hygiene technology. The clinical experience is a key element of our dental hygiene degree program. All students work under the direction of licensed dental professionals to ensure the quality of services and the comfort of our clinic patients.

Free parking for clinic patients is available adjacent to the clinic entrance. To schedule an appointment or for more information about dental hygiene services, call 330-305-6610. For information about the dental hygiene degree program, call the Office of Admissions/Student Services at 330-966-5450.

The Stark County College Tech Prep Program

As we enter the 21st century, our state and national economies will need many more highly skilled technical workers. 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's degree and beyond.

College Tech Prep is a new way of doing business in our high schools and colleges. The goal is to prepare young people for the growing number of technical jobs in the future. College Tech Prep high school students

- learn college preparatory academics in applied, real-world contexts that make the content more meaningful and accessible to them;
- develop technological literacy, including the "new basics" of computer usage; and
- in 11th and 12th grade, immerse themselves in the foundation occupational skills needed to enter and succeed in college and in a career.

At the end of high school, College Tech Prep graduates are ready to choose a technical major and enter an advanced skills technical associate's degree program with an array of 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 transfer credits earned in their associate's degree toward a bachelor's degree.

In our area, the Stark County College Tech Prep Consortium partners Stark State College of Technology with all public school districts in Stark County. The Consortium, which originated in 1992, is a dynamic initiative that continues to evolve and grow in terms of its district partnerships and scope of programming.

In 1995, the Consortium was the recipient of the prestigious "Ohio's BEST Practices" award, sponsored by the Ohio Business Roundtable. The goal of Ohio's "BEST" is to search out exemplary, innovative education programs with proven success and share their stories with education stakeholders statewide.

In 1999, the Consortium was the National Tech Prep Network's (NTPN) Exemplary Worksite Learning Award first-place winner in the nation. The Consortium was recognized for excellence in the areas of program overview, professional development, business involvement and results.

Stark County's College Tech Prep program is a partnership among students, parents, Stark County high schools, Stark State College, other colleges and universities, labor, local businesses and industries.

The Consortium has implemented the following programs:

E-Commerce/Marketing
- GlenOak High School and Massillon Washington High School.

Engineering Technologies
- Automotive engineering technologies at Canton South High School, Jackson High School and Timken High School
- Electrical/electronic engineering technologies at Perry High School
- Engineering technologies at GlenOak Career Center
- Heating, ventilation, air conditioning/refrigeration at R.G. Drage Career Center
- Light and sound production engineering technologies at GlenOak Career Center
- Manufacturing engineering technologies at Massillon Washington High School

Fire Science/Emergency Medical Service Technologies
- GlenOak Career Center and Stark State College

Health Technologies
- GlenOak Career Center, Perry High School and Timken High School

Information Technologies
- Information systems technologies at R.G. Drage Career Center
- Computer network engineering and telecommunications at Massillon Washington High School
- CISCO computer networking technologies at R.G. Drage Career Center
- Information technologies at East Canton High School
- Programming and Information Development (P.A.I.D.) at Canton South High School

Interactive Media Technologies
- GlenOak Career Center, Massillon Washington High School, and Sandy Valley High School

Additional programs are currently being developed and will be available in the near future.

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 special consideration for entry into specific programs or classes at Stark State College.

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.

All students are advised to complete the following steps when applying for financial aid:

1. Apply for admission. This enables us to establish a computer file for you.
2. Obtain the financial aid packet from our Financial Aid Office.
3. Complete the free *Application for Federal Student Aid* (FAFSA), and the Stark State College *Institutional Financial Aid Form* (IF) by May prior to the fall semester for which you are enrolling.
4. If you are transferring from another college, your financial aid available at Stark State may be limited.
5. Respond quickly to any request for additional information from our Financial Aid Office.
6. You will receive a Financial Aid notification from the Financial Aid Office, indicating the amount of aid you are eligible to receive. If you are eligible for a loan, you will receive a loan request form with the notification.
7. If you decide to accept a loan, the loan request form must be completed and returned to the Financial Aid Office. In addition, the student must complete the *Master Promissory Note.*
8. First-time Stark State College loan recipients must complete online loan counseling by visiting ***www.starkstate.edu*** and clicking on the Financial Aid link, then the Student Loan Information/Application and Online Loan Counseling link. The Financial Aid Office will receive an email notification once the counseling is complete.

The major sources of aid are explained below:

FEDERAL PELL GRANT

The Federal Pell Grant is the largest federal grant program and is made available to students who demonstrate financial need. The grant is available to both full-time and part-time students. The application for the Pell Grant is the FAFSA and the IF.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (FSEOG)

The FSEOG's primary selection criterion is based on Federal Pell eligibility. Funds are awarded on a first-come, first-served basis, so students should apply early to be considered for these monies.

FEDERAL WORK STUDY PROGRAM (FWSP)

The Federal Work Study Program (FWSP) provides work opportunities for students who demonstrate financial need. Funds for the FWSP are provided through the cooperative efforts of the institution and the federal government. Eligibility for participation in this program is based on student need.

OHIO INSTRUCTIONAL GRANT (OIG)

The Ohio Instructional Grant offers financial aid to students who are within the state income guidelines, are full-time students and are enrolled as undergraduates in an eligible Ohio college. The amount of the award depends on family income and family size. The Ohio part-time state grant offers tuition assistance to residents enrolled less than full-time. Eligibility is determined the same as the OIG.

FEDERAL SUBSIDIZED STAFFORD LOAN

The Subsidized Stafford Loan is made through a participating bank, credit union or other lending institution. The interest rate is variable, not to exceed 8.25%. The student begins repayment six months following graduation or six months after the student is no longer enrolled in at least six credit hours. The federal government pays the interest on the loan while the student is enrolled in school. To apply, the student must complete a FAFSA, IF and Stafford Loan application. These forms can be obtained from the Financial Aid Office.

FEDERAL UNSUBSIDIZED STAFFORD LOAN

This loan is not based on financial need and, therefore, is available to anyone who meets general eligibility requirements. Loan limits, deferments and interest rates are the same as the Subsidized Stafford Loan program; however, students pay interest during in-school and deferment periods. To apply, the student must complete a FAFSA, IF and Stafford Loan application. Forms can be obtained from the Financial Aid Office.

STARK STATE COLLEGE ACADEMIC SCHOLARSHIP

Each year, all local high schools have a scholarship available to a graduating senior who demonstrates high academic performance and plans to attend Stark State College. The scholarship amount may vary, but it is intended to defray the entire cost of tuition for the freshman year. Applications are available at the high school guidance office or our Financial Aid Office. The deadline for filing is typically February 28 of the student's senior year.

TIMKEN SCHOLARSHIPS

Each year, the Financial Aid Office awards several scholarships from funds donated by the Timken Foundation. These scholarships are based on academic ability, financial need and application date.

ADDITIONAL SCHOLARSHIPS

The Financial Aid Office handles various scholarships available to students at different times throughout the year. A bulletin board outside the Financial Aid Office posts scholarships and application procedures as they become available. Information about these scholarships is also available on our Web site at ***www.starkstate.edu***.

VETERANS EDUCATIONAL BENEFITS

Stark State College is fully accredited under the laws that provide educational benefits for veterans. The Registration Office certifies veterans' eligibility.

OTHER SOURCES OF AID

Stark State College works closely with many local agencies to assist students in securing funds for college. The agencies include Workforce Investment Act (WIA), Bureau of Vocational Rehabilitation (BVR), Trade Adjustment Act (TAA), Displaced Homemakers, etc. For more information on any of these programs, contact the individual agency.

STUDENT INSTALLMENT PAYMENT PROGRAM (SIP)

Stark State College offers a student installment program (SIP) which allows a student to pay tuition and fees in three equal installments, instead of one lump sum, for a small fee. This option will be offered automatically when the student registers for classes.

STANDARDS OF ACADEMIC PROGRESS

The Standards of *Academic Progress Policy* ensures that any student who applies for federal financial aid is making progress toward a degree. In order to maintain eligibility for aid, a student must meet the "standards requirements" listed below. Failure to meet these requirements will result in the loss of federal aid until action is taken to regain eligibility. The aid programs affected by these "standards" are: Federal Pell Grant; FSEOG; FWSP; Stafford Loan; and Federal PLUS.

State funds are not affected by this policy. However, these rules apply even if aid was not being received at the time of infraction. Outlined below is an abbreviation of the policy. The complete policy is available at the Financial Aid Office.

STANDARDS REQUIREMENTS

1. Complete 67% of the credit hours attempted for the academic year. The credit hours a student is enrolled in on the morning of the fifth day of classes for each semester are added together. It is expected that the student should complete 67% of these credit hours. For example, if a student begins each of two semesters with 12 credit hours, the student must complete 16 hours (24 x 67%) with a grade of an A, B, C or D by the end of the academic year.
2. An associate's degree must be completed within 99 (semester equivalent) enrolled credit hours.
3. The student must maintain a cumulative GPA of at least 1.5 until 30 hours are completed, and a GPA of 2.00 thereafter.

Fees, Methods of Payment, Refunds and Residency Requirements

Stark State College of Technology 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 of Technology 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, please 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
Business Office
Financial Aid Office
Registration
Cashier's Office
Information Desk/Switchboard

Fees

APPLICATION/MATRICULATION FEE

The application/matriculation 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 application/matriculation 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 Fee)

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

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.

LATE REGISTRATION FEE

A late registration fee will be charged to anyone registering and/or paying during late registration. Students may avoid this fee by registering and/or paying during open registration.

RE-REGISTRATION FEE

Students re-registering, due to non-payment drop, will be charged a surcharge to re-register.

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.

Fees *(Continued)*

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 DECAL FEE

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

GRADUATION FEE

This is a one-time fee that covers the processing of documents necessary for commencement.

OLDER CITIZENS FEES

Citizens who are 60 years of age or older, and have paid the current application/matriculation 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.

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.

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. The application fee, and all miscellaneous fees are not subject to refund.

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 fifth day of the semester - 100% refund.

(b) On the fifth 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 fifth day of the semester - 100% refund.

(b) On the fifth through the sixth day of the semester - 80% refund.

(c) On the seventh through the eleventh day of the semester - 60 % refund.

(d) On the twelfth through the thirteenth day of the semester - 40% refund.

(e) 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 fifth day of the semester - 100% refund.

(b) On the fifth day of the semester - 80% refund.

(c) On the sixth through the eighth day of the semester - 60% refund.

(d) On the ninth through the tenth day of the semester - 40% refund.

(e) 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 fifth day of the semester - 100% refund.

(b) On the fifth day of the semester - 60% refund.

(c) On the sixth day of the semester - 40% refund.

(d) 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.

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 beyondthe normal refund policy. Specific instructions for this appeal are noted in the Student Handbook.

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 REGULATIONS

Final grades are issued at the end of each semester. Letter grades earn a number of quality points per credit unit according to the following table:

A	— Superior	4
B	— Good	3
C	— Average	2
D	— Below Average	1
F	— Failed	0
IN	— Incomplete	0
NC	— No Credit	0
W	— Withdrawn	0
AU	— Audit	0
CR	— Credit	0

The student's grade-point average (GPA) is computed by the following formula:

Total Quality Points Earned / **Total Units of Credit Attempted** =Grade-Point Average

For example, five courses worth three credits each would be a total of 15 units of credit. If the student earns one "A" (4 quality points x 3 credit hours = 12 quality points) and four "Bs" (3 quality points x 12 credit hours = 36 quality points), the total is 48 quality points. To compute grade point average, (GPA), divide the total quality points (48) by the total units of credit attempted (15), and the resulting GPA is 3.20. This formula is repeated below:

Grade	Credits	Quality Points
A *(4 pts.)*	3	12
B *(3 pts.)*	12	36
	15	48

48 total quality points / **15 credits attempted** = 3.20 GPA

Unless the student requests otherwise, grades are only available on the Student Access site at ***www.starkstate.edu/student***. Students should consult periodically with the instructor to check their academic progress.

GRADE OF INCOMPLETE (IN)

The grade of "IN" may be given when the student's work in the course has been passing but some specific course requirements have not been completed. To receive an "'IN'" before the end of the semester, the student must contact the instructor and request this grade. If the instructor agrees to grant an ''IN'' for the course, a written agreement shall be reached between student and instructor outlining the remaining requirements to receive a grade. Both the student and the instructor shall sign this agreement and a copy will be forwarded to the department head. The ''IN'' will not be computed in the student's grade-point average for that semester. Unless the requirements in the written agreement are met within 30 calendar days from the end of the semester in which the 'IN' was issued, the grade will automatically revert to an "F". By special permission of the instructor and notification of the department head, this time limit may be extended for extenuating circumstances.

ATTENDANCE POLICY STATEMENT

Regular and punctual attendance at all classes is expected of each student. The individual instructor has both the responsibility and the prerogative for managing student attendance.

Students anticipating absence(s) from class are responsible for contacting the instructor (s).

The federal government now requires that colleges and universities monitor attendance. This is necessary in order to document that students are eligible for the federal funds they receive. The federal government

mandates that non-attendees be dropped or withdrawn and federal monies be refunded accordingly. Therefore, Stark State monitors class attendance for ***all*** students since it is not obvious which students receive federal funds. Students not in attendance of their classes risk being dropped or withdrawn from courses and having any financial aid cancelled or reduced.

WITHDRAWAL POLICY

Students may withdraw from a course or from the College during the first 14 calendar days of any academic period by completing the "change of course" form and processing it through the Registration Office. The form is available in the Registration Office, the Office of Admissions/ Student Services and all academic division offices. Changes made during this period will not become part of the student's transcript.

Through the same procedure (but, including the instructor's signature) students may withdraw from a course or the College, with a "W" grade, from the 15th calendar day of classes through 75% of the course.

Requests to withdraw with a "W" grade beyond the deadline date through the end of the last class meeting of the course must be presented to the instructor and the department head. Only cases involving emergency or extenuating circumstances necessitating the request will be considered.

AUDITING COURSES

Students wishing to audit a course must indicate audit status on the registration form at the time of registration. Students who register for a class for credit may change to audit status during the first week of classes only.

DEAN'S LIST

At the end of each term, a *Dean's List* is compiled, which lists the names of all full-time students (12 or more credits) who have achieved a point average of 3.50 or better for the term. No student is eligible for the list who has a grade of "'IN'" or "F."

Part-time students who have earned 10 or more hours of credit in any academic year (fall and spring semesters) with a GPA of 3.50 or above will be recognized on the *Dean's List* at the end of spring semester each year. Students eligible for this recognition would be limited to students who in any academic year have not been full-time.

CROSS-REGISTRATION

Stark State College has made arrangements with many colleges and universities to provide opportunities for cross-registration. To cross-register, students should contact the Registration Office or the Office of Admissions/Student Services to obtain details of the program of interest.

ACADEMIC PROBATION/DISMISSAL

Probation is a message to alert students that the quality of their work must improve if they are to obtain the minimum grades required for graduation.

Students who fail to maintain a cumulative grade-point average of 2.00 will be placed on academic probation. Students on academic probation are required to meet with their academic advisor before the beginning of the next term.

Students will be subject to academic dismissal if they have been on academic probation for one term and do not achieve the required cumulative grade point average for the hours attempted during the next term in which they are enrolled.

Removal of probation status for students is automatic when students raise their accumulated grade-point average above a 2.00.

After the following specified number of credit hours is attempted, students will be dismissed from the College if their cumulative grade-point average falls below the following minimums:

Credit Hours	Cumulative Point Average
12	1.00*
24	1.25
30	1.50
45	1.75
60+	2.00

However, students completing an academic term with a 2.00 grade-point average will not be dismissed from the College.

Students may apply for reinstatement after one term through the department head and appropriate dean.

Appeals to dismissal may be made to Appeals Committee.

**No student will be dismissed until completion of two terms.*

HONESTY IN LEARNING

Stark State College of Technology 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.

Coursework - Work done for class, which a student submits as the student's own work, shall not contain that which has been obtained from another other than properly credited references, sources, and citations. The work which a student submits shall be prepared in accordance with course guidelines.

Exams - Work done on a test, exam, or quiz shall be the student's own and shall not contain that which has been obtained from an inappropriate source. A student shall not obtain nor seek to obtain advanced access to questions or advance copies of a test, exam or quiz.

A student who violates or assists another to violate the *Honesty in Learning* policy may be penalized with a failing grade for the specific work for which the dishonesty was committed. Additional violations may lead to more severe penalties, including failure of the course and/or dismissal from the College.

DISCIPLINARY PENALTIES FOR ACADEMIC DISHONESTY

- For a first offense, a grade of "F" (specific value to be defined by instructor) may be issued for the assignment in which dishonesty occurred.
- For a second offense (not necessarily in the same course or term) a grade of "F" may be issued for the course in which dishonesty has occurred.
- Any student who has been involved in three offenses (not necessarily in the same course or term) may be dismissed from the College immediately and suspended for the next full term. Upon readmission to the College, any future offense will cause the student to be dismissed immediately with no right to readmission.

GRADUATION REQUIREMENTS/DEGREES

Stark State College of Technology confers the following degrees upon successful completion of a prescribed course of study:

- the associate of applied business (A.A.B.)
- the associate of applied science (A.A.S.)
- the associate of science (A.S.)
- the associate of technical studies (A.T.S.)

Minimal graduation requirements for degrees are:

- a grade point average of 2.00 or above.
- a grade point average of 2.00 or above in the technical major.
- successful completion of courses listed on the official program guide.

Deviation from the specific program requirements requires approval from the department head or appropriate dean.

- Completion of the application for graduation form is required, along with payment of the graduation fee, no later than the published deadlines for the appropriate graduation (May or December) as indicated in guidelines published by the vice president for instructional and corporate services. Information regarding graduation is also available at ***www.starkstate.edu***.

CATALOG-IN-FORCE

Requirements to earn a degree or certificate are based initially on the catalog which is in force at the time of the student's initial enrollment. However, the College reserves the right to change course offerings and academic requirements without notice. These changes should not be to the disadvantage of the student during his or her enrollment. In that regard, the following guidelines determine which catalog a student must follow in meeting program requirements:

- Students may elect to complete their coursework under the most recent catalog and must comply with all of the new requirements for their program.
- Students who change majors must meet the requirements of the catalog which is in force at the time they change majors.
- Students who transfer to another college or university and return to Stark State College will be readmitted under the catalog which is in force at the time of readmission.
- Students who do not earn any credit hours in two calendar years must satisfy requirements of the catalog in force at the time of re-enrollment.
- Dismissed students are readmitted under the catalog which is in-force at the time of readmission.

Exceptions to the above may be necessary when changes in certification or licensure standards mandate changes in academic requirements or in College programs.

Questions concerning this policy should be directed to the Office of Admissions/Students Services.

ACADEMIC HONORS

Various awards are offered for outstanding accomplishments in each curriculum to members of the graduating class.

Graduates in each curriculum will graduate "with high distinction," provided they have a GPA of 3.80 or better. Graduates in each curriculum will graduate "with distinction," provided their cumulative GPAs are 3.40 or above.

TRANSCRIPTS

An official copy of a student's record is issued upon written request by the student or alumnus. Transcripts will not be issued to those students who have unpaid financial obligations with the College. Outstanding matters of this nature are handled by the Business Office.

TRANSFERABILITY OF CREDITS

Acceptance of credits earned at Stark State College is at the option of the receiving institution. Many institutions have specially designed transfer programs.

TRANSFER BACCALAUREATE PROGRAMS

Most colleges and universities in Ohio (and elsewhere in the nation) recognize the purpose and function of the two-year technical curricula, and therefore have developed, or are in the process of developing, special transfer (junior and senior year) programs for technical program graduates who wish to pursue baccalaureate degrees. Information on these programs is available in the Office of Admissions/Student Services. Students who plan to complete work on a baccalaureate degree after receiving their associate's degree are urged to investigate transfer programs, and to discuss their plans with our counselors.

The transfer approach to baccalaureate degrees offers several advantages to the technical college graduate:

1. **Educational.** The transfer curriculum provides the student with a chance to major in the occupationally-related courses in the first two years and in liberal arts and more advanced occupational courses in the following years. Conversely, the typical B.A. or B.S. program is comprised chiefly of liberal art subjects during the first two years and occupationally related subjects during the last two years.

   The transfer curriculum has sometimes been called the "upside down" curriculum, but for many it is really "right-side-up," since it is educationally sound to move from the "particular and the concrete" to the "general and the abstract."

2. **Financial.** The transfer plan is economically feasible for most students because they can work in their chosen field while completing the baccalaureate program.

3. **Occupational.** Stark State College graduates have three options: begin full-time employment (they are job-ready); pursue their bachelor's degree full-time (they are prepared for additional higher education); or commence full-time employment and pursue additional education on a part-time basis (the employer often reimburses tuition charges).

   It should be noted that Stark State students can find out early in their education if their career choice meets their expectations.

4. **Recognition.** The attainment of a meaningful associate's degree is an encouraging step at halfway point to the baccalaureate degree via the transfer approach, and represents an additional valid credential to prospective employers.

Earn a bachelor's degree at Stark State College

Stark State College of Technology has entered into an alliance with Columbus-based Franklin University that will enable Stark State students to earn bachelor's degrees without leaving the Stark State campus in:

- business administration
- computer science
- digital communication
- health care management
- management information systems
- public safety management
- technical management

Additional degree programs are added periodically so be sure to check with the College's Office of Admissions/Student Services for the most current information. Stark State College has offered numerous transfer and articulated degree programs for many years, but this is an opportunity to earn a bachelor's degree without transferring to another college or university.

Students who have earned an associate's degree or at least 60 semester hours of college credit (with a minimum GPA of 2.50), can enroll in 24 semester hours of "bridge courses" offered by Stark State, which prepares students for the upper-level courses offered by Franklin University. Students can then enroll in Franklin University's online courses and "attend" class via computer from labs at Stark State, from their home, or from any other online connection. Franklin's degree completion program requires an additional 40 to 44 semester hours, depending on the major chosen.

To be eligible for this program, students must have access to a computer that has an Internet connection, such as an online computer at home or Stark State's computer labs. Students also need a permanent email address. Many email providers offer free email addresses. Our computer lab instructors and Office of Admissions/Student Services staff can help you get started.

For students enrolled in Franklin's program, course assignments are posted by email, and there will be scheduled chat sessions for class discussion and contact with professors. Students will have online access to help desks, tutorial services and library resources. Students will continue to have access to all of Stark State's facilities and services, including academic advising and job placement/career services.

Detailed, up-to-date information is available from Stark State's Office of Admissions/Student Services. Stark State's Web site (***www.starkstate.edu*** or Franklin University's Web site (***www.franklin.edu***).

Franklin University is accredited by The Higher Learning Commission of North Central Association of Colleges and Schools (30 North LaSalle Street, Chicago, IL 60602-2504; 312-263-0456) to grant both campus-based and online degrees.

FRANKLIN UNIVERSITY

Stark State College of Technology has partnered with The University of Toledo to offer a bachelor of science degree in computer science and engineering technology. Stark State students who earn an associate's degree are eligible to complete their bachelor's degree through The University of Toledo by taking courses on Stark State's campus and via the Internet. During the first two years, Stark State students will work toward an associate of applied science degree in computer science and engineering technology. During the last two years, students will work to complete the bachelor's degree in computer science and engineering technology from The University of Toledo, focusing on computer networking and Web-based programming. This program may be completed on a part-time basis.

It is imperative that students interested in this program consult their academic advisor for additional requirements of the program. Detailed information is available from the Stark State Office of Admissions/Student Services or from the department head of computer science and engineering technology.

State of Ohio Policy for Institutional Transfer

The Ohio Board of Regents, following the directive of the Ohio General Assembly, has developed a statewide policy to facilitate movement of students and transfer credits from one Ohio public college or university to another. The purpose of the state policy is to avoid duplication of course requirements and to enhance student mobility throughout Ohio's higher education system. Since independent colleges and universities in Ohio may or may not be participating in the transfer policy, students interested in transferring to an independent institution are encouraged to check with the college or university of their choice regarding transfer agreements.

TRANSFER MODULE

The Ohio Board of Regents' *Transfer and Articulation Policy* established the *transfer module*, which is a specific subset or the entire set of a college or university's general education requirements. The *transfer module* consists of 37-39 semester hours of specified course credits in English , mathematics, arts and humanities, social science and natural science.

A *transfer module* completed at one college or university automatically meets the requirements of the *transfer module* at the receiving institution, once the student is accepted. Students may be required to meet additional general education requirements that are not included in the *transfer module.*

CONDITIONS FOR TRANSFER ADMISSION

Students meeting the requirements of the *transfer module* are subject to the following conditions:

1. The policy encourages receiving institutions to give **preferential consideration** for admission to students who complete the *transfer module* and either the associate of arts or the associate of science degrees. These students will be able to transfer all courses in which they received a passing grade of "D" or better. Students must have an overall grade point average of 2.0 to be given credit for the *transfer module.*

2. The policy also encourages receiving institutions to give **preferential consideration** for admission to students who complete the *transfer module* with a grade of "C" or better in each course and 90 quarter hours or 60 semester hours. Students must have an overall grade point average of 2.0 to be given credit for the *transfer module* and only courses in which a "C" or better has been earned will transfer.

3. The policy encourages receiving institutions to admit on a **non-preferential consideration** basis students who complete the *transfer module* with a grade of "C" or better in each course and less than 90 quarter hours or 60 semester hours. These students will be able to transfer all courses in which they received a grade of "C" or better.

Admission to a given institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors or fields of concentration at that institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as all other students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be successfully completed at the receiving institution prior to the granting of a degree.

RESPONSIBILITIES OF STUDENTS

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their advisor and the college or university to which they plan to transfer.

APPEAL PROCESS

A multi-level, broad-based appeal process is required to be in place at each institution. A student disagreeing with the application of transfer credit by the receiving institution shall be informed of the right to appeal the decision and the process for filing the appeal. Each institution shall make available to students the appeal process for that specific college or university.

If a transfer student's appeal is denied by the institution after all appeal levels within the institution have been exhausted, the institution shall advise the student in writing of the availability and process of appeal to the state level Articulation and Transfer Appeals Review Committee.

The Appeals Review Committee shall review and recommend to institutions the resolution of individual cases of appeal from transfer students who have exhausted all local appeal mechanisms concerning applicability to transfer credits at receiving institutions.

HOW TO APPLY

New students should indicate their interest in completing the *transfer module* on application to the College. Current or returning students should discuss this option with their academic advisor or an admissions counselor. The *transfer module* is intended to be completed in cooperation with your area of study.

THE STARK STATE COLLEGE OF TECHNOLOGY TRANSFER MODULE

Field	**General education requirements applied to *transfer module***	**Additional general education requirements**	**Additional general education requirements beyond the *transfer module* for graduation**
ENGLISH *minimum* *6 semester hours*	ENG124 (3) *Plus one of the following:* ENG123 (3), ENG221 (3), ENG224 (3) *(6 semester hours)*		Select one course: ENG122 (3), SPH121 (3), SPH122 (3) *(3 semester hours)*
MATHEMATICS *minimum* *6 semester hours*	Select two courses: MTH122 (3), MTH221 (3), MTH 223 (4) MTH123 (3), MTH222 (3) *(6-7 semester hours)*		
ARTS and HUMANITIES *minimum* *6 semester hours*	PHL122 (3) *Plus one of the following Kent State-Stark courses:* ARCH11013 ART12001 or 22006 ENG22055, 23079 or 24071 HIST11050, 11051, 12070 or 12071 MUS22111 PAS23101 or 23102 *(6 semester hours)*		
SOCIAL SCIENCE *minimum* *6 semester hours*	*Select two courses:* PSY121 (3) and SOC121 (3) or SOC122 (3), SOC123 (3), SOC225 (3) *(6 semester hours)*	*Select one PSY/PSC course and/or one BUS course:* PSY122 (3), PSY123 (3), PSY124 (3) PSY221 (3), PSC121 (3), BUS122 (3), BUS221 (3), BUS222 (3) *(3 semester hours)*	
NATURAL and PHYSICAL SCIENCE* *minimum* *7-8 semester hours*	Select two courses: BIO101 (3), BIO121 (4), BIO122 (4) BIO126 (4), BIO127 (4), BIO221 (4), CHM101 (4), CHM121 (4), CHM122 (4), PHY101 (4), PHY121 (4), PHY122 (4) PHY221 (4), PHY222 (4) **Must include at least one laboratory course.* *(7-8 semester hours)*		
		Select two additional courses from column 2 and/or 3 for	
TOTAL	**31-33 SEMESTER HOURS**	**6 SEMESTER HOURS**	**3 SEMESTER HOURS**

English		
Business Communication	ENG	123
College Composition	ENG	124
Technical Report Writing	ENG	221
Composition and Literature	ENG	224
Mathematics		
College Algebra and Trigonometry II	MTH	122
College Algebra	MTH	123
Concepts of Calculus	MTH	221
Statistics	MTH	222
Analytic Geometry – Calculus I	MTH	223
Arts & Humanities		
Ethics	PHL	122
Understanding Architecture+	ARCH	11013
Art Survey+	ART	12001
Art History I: Ancient and Medieval Art+	ART	22006
Intro. to Shakespeare+	ENG	22055
Major Modern Writers:		
British and United States+	ENG	23079
Great Books I+	ENG	24071
History of Civilization I+	HIST	11050
History of Civilization II+	HIST	11051
History of the U.S., The Formative Period+	HIST	12070
History of the U.S., The Modern Period+	HIST	12071
The Understanding of Music+	MUS	22111
Interpreting the Black Experience I+	PAS	23101
Interpreting the Black Experience II+	PAS	23102
Social Science		
General Psychology	PSY	121
Sociology	SOC	121
Sociology and Technology	SOC	122
Dynamics of the Family	SOC	123
Cultural Diversity	SOC	225
Natural and Physical Science		
Intro. to Anatomy and Physiology	BIO	101
Anatomy and Physiology I	BIO	121
Anatomy and Physiology II	BIO	122
Science, Energy and the Environment	BIO	126
Human Biology	BIO	127
Principles of Microbiology	BIO	221
Introduction to Chemistry	CHM	101
General Chemistry	CHM	121
Organic and Biological Chemistry	CHM	122
Principles of Physics	PHY	101
Physics I	PHY	121
Physics II	PHY	122
Physics I with Calculus	PHY	221
Physics II with Calculus	PHY	222

+Indicates courses offered at Kent State-Stark Campus

Division of Corporate and Community Services

Stark State College of Technology's Division of Corporate and Community Services provides continuing education, contract training, certification and labor-management assistance to the community through:

- continuing education classes, workshops/seminars
- contract training/education and assessment services
- computer certification tests, and
- Stark County Labor-Management Council

CONTINUING EDUCATION CLASSES, WORKSHOPS AND SEMINARS

The Division of Corporate and Community Services offers a full range of continuing education classes, workshops and seminars that can help currently employed individuals; prepare them for a new career; and enrich their lives. Most programs are held at the Advanced Technology Center.

Continuing education classes are designed to meet the mandatory continuing education licensure requirements of professionals in a variety of fields, such as social work, counseling, health care, and law enforcement. 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, please call 330-966-5455 or visit ***www.starkstate.edu.***

CONTRACT TRAINING/EDUCATION AND ASSESSMENT SERVICES

In addition to continuing education, the Division of Corporate and Community Services offers contract training/education 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 consultants and faculty will help assess your training needs and design technical and human resource programs to satisfy those needs. A variety of assessments are available so incoming students can find the right program to match their current level of capability.

The Division of Corporate and Community Services also operates an ISO/QS9000 consortium program that assists companies to become ISO/QS9000 compliant and/or certified. For more information about contract training services, please call 330-966-5465.

CERTIFICATES OF COMPLETION

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), and EnterpriseOhio. 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.

Specific testing services are available to allow individuals to achieve certification in a number of MOS, MCSE and CompTIA disciplines as well as others. Contact the Continuing Education Office at 330-966-5455 for more information or to schedule a certification test.

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 Registration 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 Registration Office to obtain a copy of the official transcript.

STARK COUNTY LABOR-MANAGEMENT COUNCIL

The Stark County Labor-Management Council is housed in the College's Advanced Technology Center. The goal of the Council is to create harmony between labor and management and to enhance economic development in Stark County. The SCLMC Board of Directors is comprised of top union, management, public sector and governmental executives. The Council provides seminars and workshops to enhance labor management relationships. It also provides customer-focused, neutral, cost-effective training facilitation and consulting services. For more information about the Council, call 330-966-5455, Ext. 4505.

OHIO PEACE OFFICER LAW ENFORCEMENT TRAINING ACADEMY

Stark State College of Technology, 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.

Business Technologies

The business technologies division is dedicated to providing a current and relevant technical education to those pursuing careers in business and related fields.

We strive to:

- maintain consistently high academic standards.
- provide a technology-based education.
- provide business and industry with graduates who are qualified in their chosen fields.
- develop and adapt courses of study to meet current and future needs.
- build the academic foundation for study beyond the associate degree.
- make course offerings available to those individuals and organizations who wish to acquire supplemental education and training.

Today's business world demands highly-skilled employees oriented to the preparation, interpretation and use of oral, written and number-based data. The business technologies division provides the opportunity to acquire those skills via 20 degree programs and option offerings in nine career fields which include:

- accounting
- administrative information
- automotive
- business management
- financial services
- information reporting
- legal assisting
- marketing management
- operations management

The Business @ a Distance Consortium is an exciting collaboration by several Ohio two-year colleges to deliver Web-based business course options to Stark State's associate of applied business degree in business management technology. For more information regarding this innovative program, refer to the business management technology – business @ a distance online option page in this section.

FRANKLIN UNIVERSITY

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

Accounting Technology

The accounting curriculum gives students the solid foundation in accounting theory that is necessary for entry- to upper-level accounting positions and career advancement.

This curriculum meets the necessary requirements for graduates to sit for the Certified Public Accountant's (CPA) Examination as set forth in the *Ohio General Code*. Candidates must have obtained at least an associate's degree with a concentration in accounting that includes related courses in other areas of business administration and complete the Graduate Record Examination (GRE) before sitting for the CPA examination. After four years of approved work experience, the candidate may be certified.

Other job opportunities are tax accounting, governmental accounting, industrial/cost accounting, not-for-profit accounting and accounting for small business.

Accounting majors study general accounting theory and, in addition, may specialize in public accounting (CPA) and corporate accounting (controllership). As an alternative to going directly to work in an accounting position after graduation, some students major in accounting for a good, solid educational foundation and, after completing their baccalaureate degree, go on to graduate school. For many graduates, accounting has proven to be an excellent foundation for advancement to top executive positions.

The College also 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.

The goal is that students successfully completing an accounting technology program, or one of its options, will be exposed to all the tools and skills necessary to be successful in the undertaking of a career in their chosen field of accounting. They will have covered all the technical knowledge required and practiced its application in practical situations. All the subject matter covered on the Uniform Certified Public Accountant exam is within the curriculum. The student will demonstrate their acquired knowledge and abilities throughout the program within the 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 expect their 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 will be introduced to, and provided practice in, these basic competencies, which they are expected to master.

Bookkeeping Certificate

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ACC	121	Principles of Accounting I	4
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
BUS	123	Business Math	4
ENG	124	College Composition †	3
			19
Semester II			
ACC	122	Principles of Accounting II	4
ACC	229	Accounting Practice and Problems	3
ACC	227	Current Accounting Topics	3
ENG	123	Business Communication	3
ACC	130	Business Law and Ethics	3
			16

35 SEMESTER CREDITS

* Successful completion of OAD102, 104, 105 and 106 equivalent to and may be substituted for CAP120.

† Based on SSCT placement score.

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Accounting Technology

CPA and Corporate Options

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition †	3
BUS	123	Business Mathematics	4
BUS	121	Business Administration	4
ACC	132	Financial Accounting*	4
ACC	127	Quantitative Methods of Accounting and Finance	3
			18
Semester II			
ENG	123	Business Communication	3
CAP	120	Business Computer Applications***	4
ACC	221	Intermediate Accounting I	4
ACC	133	Managerial Accounting	4
BUS	122	Basic Economics	3
			18
Semester III			
SPH	121	Effective Speaking	3
ACC	124	Taxation	4
ACC	222	Intermediate Accounting II	4
ACC	223	Cost Accounting	4
		Accounting Elective****	3
			18
Semester IV			
PSY	121	General Psychology**	3
ACC	225	Auditing	4
FIN	122	Principles of Finance	4
		Accounting Elective****	3
ACC	130	Business Law and Ethics	3
			17

71 SEMESTER CREDITS

* Student may select ACC 121 and ACC122 in place of this course.

** Student may select PSY124, SOC121, or SOC225 in place of this course.

*** Successful completion of OAD102, 104, 105 and 106 is equivalent to and may be substituted for CAP120.

† Based on SSCT placement score.

****Options Electives**

CPA Option: Students should select two from ACC226,ACC228, ACC232, or Co-op. ***(NOTE: Students planning to sit for the CPA Examination should consider taking ACC226, ACC228, and/or ACC232 as their electives.)***

Corporate Option: Students should select two from ACC226,ACC 227, ACC228, ACC229 or Co-op.

EDP Option: Students should select two from ACC 227, ACC 229 or Co-op.

Tax Option: Students should select two from ACC228, FIN223 or Co-op.

FRANKLIN UNIVERSITY

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Administrative Information Technology

Students who choose career programs offered in the administrative information technologies department are in enviable positions. There are tremendous opportunities and career choices for people with skills in information management software and office technology. Career options for administrative professionals at all levels are rapidly expanding as a result of the automation of administrative functions.

Administrative 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 information technology degree program creates paths to other careers in computers, desktop publishing, administration, human resources and management.

The International Association of Administrative Professionals defines an administrative professional as "an executive assistant who possesses a mastery of office skills, who demonstrates the ability to assume responsibility without direct supervision, who exercises initiative and judgment and who makes decisions within the scope of assigned authority."

The curriculum in the administrative information technology degree program is highly computerized. Most courses utilize computers and current software. Courses include instruction on fax machines, copiers, scanners and voice input software. The Internet and Web page design are also part of the curriculum.

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

Graduates in the administrative information technology department often continue toward other advanced degrees at other colleges and online universities.

The Microsoft Corporation has expanded its certification process to include certification testing for most Microsoft Office products. Tests are available at *Core* and *Expert* levels. The Microsoft Office Specialist (MOS) program is a validation program that gives office professionals credentials that can prove they know how to use Microsoft Office applications efficiently and productively.

The Advanced Technology Center of Stark State College is an authorized testing site for the Microsoft MOS exams.

For more information regarding certification contact the department head of administrative information technologies.

The goal is that graduates of this program 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. Graduates should be able to apply practical knowledge and utilize technical skills such as keyboarding, transcription, proofreading, document production, microcomputer applications, records management, and the use of the Internet.

Graduates should demonstrate employability skills and professionalism through sound work habits, ethics and responsibility, and work in individual, team and group settings.

Graduates should be able to communicate ideas and information verbally and in written form. They should also have computational skills for solving business problems and for making analytic judgments. They should be able to acquire, organize and evaluate information for making decisions and solving problems in business environments.

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 heads.

*Designated courses in the administrative information technologies department contain the content of Microsoft certification tests. Courses leading to certification are **italicized in bold** and contain the names of Microsoft Office software applications.*

FRANKLIN UNIVERSITY

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Administrative Information Technology

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition †	3
OAD	130	Communication and Transcription Skills	3
OAD	121	Keyboarding/Formatting	3
BUS	123	Business Math	4
CAP	120	Business Computer Applications**	4
BUS	121	Business Administration	4
			21
Semester II			
OAD	***127***	***Word Processing – Microsoft Word***	***3***
ACC	121	Principles of Accounting I	4
ENG	123	Business Communication	3
OAD	129	Keyboarding Skillbuilding(8 wks)	1
OAD	131	Graphic Design Concept	3
OAD	132	Records Management	3
			17
Semester III			
OAD	***226***	***Spreadsheets - Microsoft Excel***	***3***
ACC	130	Business Law and Ethics	3
OAD	131	Graphic Design Concept	3
		Social Sciences Elective*	3
OAD	***104***	***Computer Applications – PowerPoint***(8 wks)	***1***
SPH	121	Effective Speaking	3
OAD	128	Desktop Publishing – Microsoft Publisher	3
			16
Semester IV			
BUS	122	Basic Economics	3
OAD	227	Administrative Procedures and Systems	3
OAD	232	Office Administration Practicum	3
OAD	***236***	***Database Applications – Microsoft Access***	***3***
OAD	225	Administrative Machine Transcription	3
OAD	238	Web Publishing – Microsoft Front Page	3
			18

72 SEMESTER CREDITS

* May select from SOC121 or PSY121.
** Successful completion of OAD102, 104, 105 and 106 is equivalent to and may be substituted for CAP120.
† Based on SSCT placement score.

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

FRANKLIN UNIVERSITY

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.

Administrative Information Technology

One-Year Certificate Program

Stark State College offers a one-year certificate program in administrative information technology 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 information technology 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 head of administrative information technologies.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
OAD	121	Keyboarding/Formatting	3
OAD	***127***	***Word Processing – Microsoft Word***	***3***
ENG	124	College Composition †	3
		Social Sciences Elective*	3
BUS	123	Business Math	4
CAP	120	Business Computer Applications**	4
			20
Semester II			
OAD	***236***	***Database Applications – Microsoft Access***	***3***
ENG	123	Business Communication	3
OAD	***226***	***Spreadsheet - Microsoft Excel***	***3***
OAD	131	Graphic Design Concepts	3
OAD	132	Records Management	3
			15

35 SEMESTER CREDITS

Students must complete an application upon completion of the courses in the certificate program. Applications may be obtained from the department head of administrative information technologies.

* Successful completion of OAD102, 104, 105 and 106 is equivalent to and may be substituted for CAP120.
** May select from SOC121 and PSY121.
† Based on SSCT placement score.

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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Automotive 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 technology program consists of three options: the comprehensive automotive technology program, the General Motors automotive service educational program (GM ASEP), and the corporate/Toyota T-TEN certificate of completion program.

Stark State's automotive technology curriculum blends classroom theory and hands-on training, thus giving the student the knowledge base and competencies they will need 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 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 programs have been locally and nationally rated by the Industry Planning Council of the American Automobile Manufacturers Association (AAMA).

All three of Stark State's automotive programs follow the guidelines required by the National Institute of Automotive Service Excellence (ASE). Many of Stark State's students pursue and pass ASE certification exams during the course of their instruction.

The automotive programs are fully accredited by the National Automotive Technicians Education Foundation (NATEF)

Graduates of the comprehensive automotive technology program and GM ASEP programs will receive an associate degree in applied science in automotive technology.

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.

Automotive Technology

Comprehensive Automotive Program

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

The curriculum is designed to provide the student 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, Isuzu, and Mazda, etc.).

The comprehensive automotive engineering technology 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 engineering 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 Math*	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	222	Engine Systems Performance Diagnosis	3
AUT	223	Advanced Automotive Electronics	3
AUT	224	Automotive Diesel Systems	2
BUS	122	Basic Economics	3
CAP	120	Business Computer Applications*	4
			18
Semester IV			
AUT	225	Automotive Drivetrains I	3
AUT	226	Automotive Drivetrains II	3
AUT	227	Computerized Vehicle Controls	3
AUT	228	Automotive Service Management**	
AUT	230	Technical Project**	2
ETD	202	Independent Study**	
AUT	233	Automotive Diagnostic Applications	2
ENG	221	Technical Report Writing	3
ACC	130	Business Law and Ethics	3
			19

72 SEMESTER CREDITS

* Students planning to pursue a degree in engineering technology upon completion of an associate degree should substitute the following courses: ECA122, MTH123, MTH121, PHY121, and SPH122 in place of or in addition to the above marked courses.

**Electives: Select from AUT228, AUT230 or ETD202

† Based on SSCT placement score.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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Automotive Technology

GM ASEP Option

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 requires that every student be an employee of a GM dealership. 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 (GM ASEP)	2
AUT	122	Automotive Systems and Engine Technology (GM ASEP)	4
AUT	123	Engine Diagnosis and Major Service (GM ASEP)	4
ENG	124	College Composition †	3
BUS	123	Business Math*	4
ETD	222	Engineering Technology Co-op (GM ASEP)**	2
			19
Semester II			
AUT	124	Vehicle Chassis Systems (GM ASEP)	4
AUT	125	Automotive Electrical and Accessory Systems (GM ASEP)	4
BUS	121	Business Administration*	4
ACC	121	Principles of Accounting I*	4
ETD	222	Engineering Technology Co-op (GM ASEP)**	2
			18
Summer Semester			
AUT	126	Automotive HVAC Systems (GM ASEP)	2
ETD	222	Engineering Technology Co-op (GM ASEP)**	2
			4
Semester III			
AUT	221	Fuel and Emission Management Systems (GM ASEP)	3
AUT	225	Automotive Drivetrains I (GM ASEP)	3
AUT	226	Automotive Drivetrains II (GM ASEP)	3
CAP	120	Business Computer Applications*	4
ETD	222	Engineering Technology Co-op (GM ASEP)**	2
			15
Semester IV			
ACC	130	Business Law and Ethics	3
ENG	221	Technical Report Writing	3
AUT	222	Engine Systems Performance Diagnosis (GM ASEP)	3
AUT	223	Advanced Automotive Electronics (GM ASEP)	3
AUT	227	Computerized Vehicle Controls (GM ASEP)	3
ETD	222	Engineering Technology Co-op (GM ASEP)**	2
			17

73 SEMESTER CREDITS

* Students planning to pursue a degree in engineering technology upon completion of an associate degree should substitute the following courses: ECA122, MTH123, MTH121, PHY121, and SH122 in place of or in addition to the above marked courses.

** Students enrolling in ETD222 must have approval of the director of corporate automotive programs or the department head of the automotive program.

† Based on SSCT placement score.

A COLLEGE TECH PREP PARTICIPANT

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Automotive Technology

Corporate/Toyota T-TEN Certificate of Completion

The corporate/Toyota technical education network program (T-TEN) is a one-year accelerated certificate of completion program. It is designed exclusively for the student who is seeking a career as a service technician with Toyota Motor Sales USA, Goodyear, Bridgestone-Firestone, or other quality automotive employer.

The corporate/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.

The corporate/T-TEN curriculum places a strong emphasis on Toyota vehicles and Toyota vehicle repair information along with Goodyear and Bridgestone-Firestone service procedures.

The corporate T-TEN program is a fast way to jump start your career. Students desiring to complete an associate degree need only take 24 additional credit hours of coursework. The program provides the student with nine of the 14 certification courses necessary to become a certified master Toyota technician.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
AUT	121	Automotive Technical Skills (Toyota T-TEN)	2
AUT	122	Automotive Systems and Engine Technology (Toyota T-TEN)	4
AUT	124	Vehicle Chassis Systems (Toyota T-TEN)	6
AUT	125	Automotive Electrical and Accessory Systems (Toyota T-TEN)	4
ETD	224	Engineering Technology Co-op(Toyota T-TEN)*	4
			20
Semester II			
AUT	123	Engine Diagnosis and Major Service (Toyota T-TEN)	4
AUT	126	Automotive HVAC (Toyota T-TEN)	2
AUT	221	Fuel Emission Management Systems (Toyota T-TEN)	3
AUT	223	Advanced Automotive Electronics (Toyota T-TEN)	3
AUT	227	Computerized Engine Controls (Toyota T-TEN)	3
ETD	224	Engineering Technology Co-op(Toyota T-TEN)*	4
			19
Semester III			
AUT	222	Engine System Performance Diagnosis (Toyota T-TEN)	3
AUT	225	Automotive Drivetrains I (Toyota T-TEN)	3
AUT	226	Automotive Drivetrains II (Toyota T-TEN)	3
AUT	233	Toyota Automotive Diagnostics Applications	2
ETD	224	Engineering Technology Co-op(Toyota T-TEN)*	4
			15

54 SEMESTER CREDITS

A COLLEGE TECH PREP PARTICIPANT

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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, skillfully motivate subordinates, and realize the importance of satisfying customers.

The goal is that students who successfully complete this program will be able to formulate goals and strategies to analyze the internal and external environment or 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			
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
BUS	123	Business Math	4
ENG	124	College Composition †	3
SPH	121	Effective Speaking	3
			18
Semester II			
MGT	121	Principles of Management	3
MKT	121	Principles of Marketing	3
ACC	127	Quantitative Business Research Methods	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
			16
Semester III			
MGT	221	Supervision	3
BUS	221	Microeconomics	3
MGT	227	Operations Management	4
ACC	133	Managerial Accounting	4
		Technical Elective	3
			17
Semester IV			
MGT	224	Human Resources Management	3
BUS	222	Macroeconomics	3
MGT	223	Business Decision-Making	4
SOC	121	Sociology	3
ACC	130	Business Law and Ethics	3
		Technical Elective	3
			19

70 SEMESTER CREDITS

TECHNICAL ELECTIVES

FIN122	Principles of Finance
MGT222	Small Business Management
MGT 232	International Business
MGT228	Business to Business Marketing

* Successful completion of OAD102, 104, 105 and 106 equivalent to and may be substituted for CAP120.

† Based on SSCT placement score.

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Business Management Technology

Finance Option

A company's managers must ensure that it has enough money to perform it's tasks successfully, 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.

The goal is that graduates of this option 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			
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
BUS	123	Business Math	4
ENG	124	College Composition†	3
SPH	121	Effective Speaking	3
			18
Semester II			
MGT	121	Principles of Management	3
MKT	121	Principles of Marketing	3
ACC	127	Quantitative Business Research Methods	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
			16
Semester III			
MGT	221	Supervision	3
BUS	221	Microeconomics	3
ACC	124	Taxation	4
ACC	133	Managerial Accounting	4
FIN	221	Investments and Securities	4
			18
Semester IV			
MGT	224	Human Resource Management	3
BUS	222	Macroeconomics	3
MGT	223	Business Decision-Making	4
SOC	121	Sociology	3
ACC	130	Business Law and Ethics	3
FIN	122	Principles of Finance	4
			20

72 SEMESTER CREDITS

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† Based on SSCT placement score.

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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 program 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, the student selects 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.S. 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 of Technology
- 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

More courses/programs are coming online each semester.

How do I start?

Contact Management and Marketing Department Head Jerry Myers at 330-966-5453, Ext. 4347 or by email at *jmyers@starkstate.edu* or SSCT Campus Consortium Liaison Dr. Glenda Zink at 330-966-5453, Ext. 4927 or by email at *gzink@starkstate.edu*.

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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Business Management Technology

Health Services Option

One of the fastest changing fields in the U.S. today is healthcare with its many HMOs, PPOs and other health service providers. This option is designed to blend our basic management program with a basic knowledge of the healthcare industry, anatomy, insurance, physiology, and medical terminology. This program is designed for the health service person who handles insurance claims after they leave the doctor's office. Insurance claim processors such as Aultcare, Hometown and Professional Claims Management can fully utilize the skills obtained from a graduate of this program.

The goal is that graduates in this option 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			
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
BUS	123	Business Math	4
ENG	124	College Composition†	3
BIO	125	Medical Terminology	3
			18
Semester II			
MGT	121	Principles of Management	3
MKT	121	Principles of Marketing	3
ACC	127	Quantitative Business Research Methods	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
			16
Semester III			
MGT	221	Supervision	3
BUS	221	Microeconomics	3
BIO	101	Introduction to Anatomy and Physiology	3
SPH	121	Effective Speaking	3
ACC	133	Managerial Accounting	4
HIT	230	Healthcare in the United States	2
			18
Semester IV			
MGT	224	Human Resource Management	3
BUS	222	Macroeconomics	3
MGT	223	Business Decision-Making	4
SOC	121	Sociology	3
ACC	130	Business Law and Ethics	3
MAT	231	Reimbursement for Healthcare Services	3
			19

71 SEMESTER CREDITS

* Successful completion of OAD102, 104, 105 and 106 equivalent to and may be substituted for CAP120.

† Based on SSCT placement score.

FRANKLIN UNIVERSITY

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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 will continue in this new millennium. 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, if not more so, than in the past.

There will be more rapid shifts in the marketplace and less acceptance of imbalances. Trade will increase with former Eastern Bloc countries as they open up their economies to foreign trade and investment.

Graduates of this option 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 that are prevalent in 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			
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
BUS	123	Business Math	4
ENG	124	College Composition†	3
SPH	121	Effective Speaking	3
			18
Semester II			
MGT	121	Principles of Management	3
MKT	121	Principles of Marketing	3
ACC	127	Quantitative Business Research Methods	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
			16
Semester III			
MGT	221	Supervision	3
BUS	221	Microeconomics	3
MGT	232	International Business	3
ACC	130	Business Law and Ethics	3
ACC	133	Managerial Accounting	4
			16
Semester IV			
BUS	223	International Economics	3
BUS	222	Macroeconomics	3
ACC	134	International Law	3
SOC	225	Cultural Diversity	3
MGT	223	Business Decision Making	4
MGT	224	Human Resource Management	3
			19

69 SEMESTER CREDITS

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† Based on SSCT placement score

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Business Management Technology

Small Business Option

Small businesses form the core of the U.S. economy. Business with fewer than 500 employees generate 47 percent of total U.S. sales and over half the nation's gross domestic product. Ninety-nine of every 100 U.S. business are small businesses. Small businesses employ about 53 percent of the nation's private non-farm workforce.

Small businesses make tremendous contributions to the economy and to society as a whole. Three of every four new jobs created over the past ten years were at small companies with fewer than employees. Even if students don't start their own businesses, they will probably work for a small business at some point in their careers. Small businesses are more likely to hire the youngest and the oldest workers. In addition, small businesses offer significant opportunities to women and minorities.

The goal is that graduates of this option will be able to develop a business plan and will understand the complexities of renting versus owning property and equipment. Entrepreneurial spirit will be enhanced. These skills are in addition to the previously mentioned outcomes for students in the business management technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
BUS	123	Business Math	4
ENG	124	College Composition†	3
SPH	121	Effective Speaking	3
			18
Semester II			
MGT	121	Principles of Management	3
MKT	121	Principles of Marketing	3
ACC	127	Quantitative Business Research Methods	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
			16
Semester III			
MGT	221	Supervision	300
BUS	221	Microeconomics	3
ACC	130	Business Law and Ethics	3
ACC	133	Managerial Accounting	4
MKT	221	Sales	3
			16
Semester IV			
MGT	224	Human Resource Management	3
BUS	222	Macroeconomics	3
MGT	223	Business Decision-Making	4
SOC	121	Sociology	3
MGT	222	Small Business Management	3
MKT	226	Purchasing	3
			19

69 SEMESTER CREDITS

* Successful completion of OAD102, 104, 105 and 106 equivalent to and may be substituted for CAP120.

† Based on SSCT placement score.

FRANKLIN UNIVERSITY

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Financial Services Technology

The financial services curriculum provides training in *all* aspects of the financial planning process. This includes specialized training in credit, insurance, investments, retirement planning, employee benefits, and estate and income tax planning.

Providing personal financial services requires a competence and style similar to that of other professional consulting businesses. The adviser must be familiar with relevant strategies and products and must be able to evaluate each client's situation and unique requirements to recommend a suitable course of action. Financial products include insurance, loans, stocks and mutual funds, bonds and other interest-earning investments, real estate and retirement plans. The financial services professional must be aware of the advantages and shortcomings of the various financial products that a client may consider. Personal financial planning applies to all income levels; not just the wealthy.

The goal of this program is to provide graduates with all the tools and skills necessary to be successful in the undertaking of a career in the financial services field of their choosing. All the technical knowledge required to begin a career in financial services is provided and its application in real world situations is practiced extensively. The curriculum covers all of the knowledge base tested on the Certified Financial Planner examination. Students will be expected to demonstrate their acquired knowledge and abilities as they progress in the program and during the capstone Financial Cases 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 expect their 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 will be introduced to, and provided practice in, these basic competencies, which they are expected to master.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition †	3
BUS	123	Business Mathematics	4
BUS	121	Business Administration	4
ACC	132	Financial Accounting*	4
ACC	127	Quantitative Methods of Accounting and Finance	3
			18
Semester II			
ENG	123	Business Communication	3
CAP	120	Business Computer Applications***	4
BUS	122	Business Economics	3
MKT	121	Principles of Marketing	3
FIN	123	Fundamentals of Financial Services	3
			16
Semester III			
SPH	121	Effective Speaking	3
ACC	124	Taxation	4
FIN	221	Investments and Securities	4
MKT	221	Sales	3
FIN	224	Insurance Planning	3
			17
Semester IV			
PSY	121	General Psychology**	3
FIN	223	Estate and Income Tax Planning	3
FIN	222	Retirement Planning and Employee Benefits	3
FIN	225	Financial Services Cases and Practices	3
FIN	122	Principles of Finance	4
ACC	130	Business Law and Ethics	3
			19

70 TOTAL CREDIT HOURS

* Student may select ACC121 Principles of Accounting I and ACC122 Principles of Accounting II in place of this course.
** Student may select PSY124, SOC121, or SOC225 in place of this course.
*** Successful completion of OAD102, 104, 105, and 106 is equivalent to and may be substituted for CAP120.
† Based on SSCT placement score.

FRANKLIN UNIVERSITY

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Information Reporting Technology

Associate Degree in Information Reporting
with options in Judicial Reporting, Captioning and Realtime Transcription

Note: All students entering the program must be high school graduates or have earned a GED certificate.

Reporting has joined the ranks of the IT 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. A **broadcast captioner** can assist millions of deaf and hard-of-hearing persons by captioning television and news programs. **Education reporters** are assisting students who are hearing-impaired through the use of realtime technology. **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. **Webcast reporters** are reporters who have found their services in demand providing realtime reporting to the Internet in a new field where sales meetings, press conferences, product introductions and technical training seminars are instantly transmitted to all parties involved via computers.

The National Court Reporters Association states that today's technologically advanced reporting makes reporters even more valuable and secure than ever before. National average reporting salaries are $61,000. In reporting, earning potential often is limited only by the amount of time a reporter is willing to devote to his or her profession.

Stark State College of Technology offers state-of-the-art technology, computer-aided instruction (CAI), and computer-aided transcription (CAT) training, which provide students with hands-on realtime writing experience and an extensive, conflict-free Phoenix theory personal dictionary, equipping the students for realtime reporting and preparing them for today's sophisticated reporting careers. The students write realtime to computers from the first week of class until graduation, preparing them for the sophisticated career of realtime reporting. During the educational process, students create and maintain captioning/judicial stenotype writing dictionaries, as well as the Phoenix dictionary, which they will have on diskette upon graduation.

Captioning, a new option in the information reporting technologies 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. VITAC Corporation, a leading captioning company nationwide, is partnering with Stark State to provide the software, educational, and technical support. Stark State is presently a training site for VITAC Corporation, for transitional reporters currently in the field seeking a career change to captioning. Stark State College also conducts yearly captioning boot camps in conjunction with VITAC Corporation.

The information reporting technologies program offers distance learning opportunities through Web-based education in partnership with Stenograph University Online. 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 before taking any online courses.

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 employa - bility skills and characteristics as an information reporting professional.

Graduation Stenotype Speed Requirements

Judicial Reporting
Three 5-minute machine shorthand tests of literary at 180 wpm, jury charge at 200 wpm and courtroom testimony material at 225 wpm must be passed with a minimum of 95% accuracy; must transcribe a simulated RPR skills test at RPR speed levels in 3.5 hours; and must write a simulated CCR skills test at a speed of 180-200 wpm literary for 5 minutes.

Captioning
One 5-minute machine shorthand test of literary at 200 wpm must be passed with 98% accuracy before writing a 30-minute broadcast news program with a TER goal of 98% accuracy or higher based on total word count. (TER=Total Error Rates)

Graduation keyboarding speed requirements for each option in the information reporting technology program:
Passing at least two 5-minute keyboarding tests from unfamiliar material at a minimum of 60 gwpm (maximum of 5 errors).

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.

Information Reporting Technology

Judicial Reporting, Captioning and Realtime Transcription Options

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition†	3
CAP	120	Business Computer Applications**	4
OAD	121	Keyboarding/Formatting	3
CCR	121	Court Reporting Theory I	4
OAD	130	Communication and Transcription Skills	3
			17
Semester II			
BUS	123	Business Math	4
BIO	101	Introduction to Anatomy and Physiology	3
		Technical Option Elective	3
CCR	122	Court Reporting Theory II	4
		Technical Option Elective	3
			17
Summer I			
CCR	129	Speed Building I	4
BUS	122	Basic Economics*	3
			7
Semester III			
ENG	123	Business Communication	3
ACC	130	Business Law and Ethics	3
		Technical Option Elective	3
CCR	130	Speed Building II	4
BUS	121	Business Administration	4
			17
Semester IV			
BUS	122	Social Science Elective*	3
		Technical Option Elective	3
		Technical Option Elective	3
CCR	123	Speed Building III (required lab)	2
CCR	232	Information Reporting Internship	2
			13

71 TOTAL CREDIT HOURS

* May select from SOC121 or PSY121
** Successful completion of OAD102, 104, 105 and 106 is equivalent to and may be substituted for CAP120.
† Based on SSCT placement score.

A stenograph machine must be purchased prior to beginning this program. Used machines are listed outside of faculty office B215Y. It is not necessary to buy new machine. Students will need a computerized stenograph machine for the second year.

VITAC
A Division of WordWave, Inc.

FRANKLIN UNIVERSITY

Judicial Reporting Option

Courses in this track will include instruction in judicial reporting for careers in the court system and the freelance environment. Students will learn the process of recording verbatim testimony with a computerized stenograph machine utilizing realtime software applications and computer-aided transcription, preparing them for today's sophisticated reporting careers. *Suggested electives: Realtime Software Applications (CCR229), Realtime Transcription (CCR228), Judicial Procedures (CCR231), Legal Terminology (CCR131), Medical Terminology (BIO125), Captioning I (CCR230).*

Captioning Option

Courses in this option will include instruction in realtime/caption production technologies. Topics include evaluation of writing skills for captioning, development of research techniques for specific broadcasts, development/management of specific captioning dictionaries, knowledge of captioning software for reporting in broadcast environments. *Suggested electives: Captioning I (CCR230) Captioning II (CCR235), Realtime Software Applications (CCR229), Meteorology, Geography, World History, Deaf Culture and Astronomy.*

Realtime Transcription Option

Courses in this option will include instruction in operating realtime reporting software and developing the ability to use the shorthand machine as the input device for text entry in the production of legal, medical and judicial documents. Students will learn and practice specialized transcription skills.

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.

Legal Assisting Technology

Legal secretaries and legal 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.

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

Today's law firms are redefining their management structure out of economic necessity. Effective use of support staff is becoming increasingly important.

The objectives of the legal assisting technology program are:

- to provide the basic legal knowledge and skills needed in legal and business environments.
- to develop the analytical and technical skills necessary to design, develop or plan modifications or new procedures, techniques, services, processes or applications in the field of law.
- to provide students with the practical hands-on opportunity to prepare or interpret legal documents and write detailed procedures for practicing in certain fields of law and general business environments.
- to provide students with an understanding of how to select, compile and use technical information.
- to teach students to analyze and follow procedural problems that involve independent decisions.
- to provide the communication skills for effective interaction with other members of the legal business community.
- to provide students with the opportunity to gain hands-on experience with microcomputer applications of word processing, databases and spreadsheets.
- to provide students with knowledge and expertise in various law office information systems and procedures for legal research using the Internet.
- to help students become more effective and efficient in law office management and procedures.

The goal is that graduates in the legal assisting technology 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 used in law offices, government and private agencies.

Graduates should be able to apply practical knowledge and utilize technical skills such as: data input methods (keyboarding and voice recognition), transcription, proofreading, legal document production, microcomputer applications, legal research, records management, and use of the Internet.

Graduates should demonstrate employability skills and professionalism in legal office occupations, and work in individual, team and group settings.

Graduates must be able to form ideas and information verbally and in written form, use computational skills for solving legal office problems and making analytic judgments; acquire, organize and evaluate information to make decisions and solve problems in legal environments.

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 appropriate department heads.

Designated courses in the administrative information technologies department contain the content of Microsoft certification tests. Courses leading to certification are italicized in bold and contain the names of Microsoft Office software applications.

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Legal Assisting Technology

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition†	3
OAD	132	Records Management	3
OAD	121	Keyboarding/Formatting	3
OAD	130	Communication and Transcription Skills	3
CAP	120	Business Computer Applications**	4
BUS	121	Business Administration	4
			20
Semester II			
OAD	224	Legal Office Procedures	3
ENG	123	Business Communication	3
OAD	129	Keyboarding/Skillbuilding (8 weeks)	1
PSC	121	Political Science	3
OAD	***127***	***Word Processing Microsoft Word***	***3***
BUS	123	Business Mathematics	4
			17
Semester III			
OAD	239	Legal Transcription	3
SPH	121	Effective Speaking	3
OAD	***236***	***Database Applications – Microsoft Access***	***3***
ACC	130	Business Law and Ethics	3
		Social Sciences Elective*	3
ACC	121	Principles of Accounting I	4
			19
Semester IV			
OAD	237	Legal Office Applications	3
OAD	235	Legal Research and Writing	3
OAD	***226***	***Spreadsheets – Microsoft Excel***	***3***
OAD	232	Office Administration Practicum	3
BUS	122	Basic Economics	3
			15

71 TOTAL CREDIT HOURS

* May use SOC121 or PSY121.

** Successful completion of OAD102, 104, 105 and 106 is equivalent to and may be substituted for CAP120.

† Based on SSCT placement score.

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

Students may use the following courses to receive a competency certificate in realtime transcription. A steno machine must be purchased prior to beginning the following courses. Used machines are listed outside faculty office B215Y. It is not necessary for students to purchase a new machine.

May use CCR121 CR Theory I in place of Communication and Transcription Skills
May use CCR122 CR Theory II in place of Database Applications Microsoft Access
May use CCR129 Speed Building I in place of Records Management
May use CCR130 Speed Building II in place of Spreadsheets Microsoft Excel
Must take Realtime Transcription

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Marketing Management Technology

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

There are more than 750,000 people employed as marketing, advertising and public relations managers. Marketing managers develop the firm's detailed marketing strategy. With the help of staff, they determine the demand for products and services offered by the firm and its competitors. They also identify potential customers. Marketing managers develop pricing strategy and work with advertising and sales managers to promote the firm's products and services to attract potential customers.

The goal is that graduates of the marketing management technology degree, or one of its options, will be able to apply mathematical skills appropriate to a management occupation; demonstrate proficiency with computers consistent with job demands; develop analytical skills in identifying and solving marketing/business problems; identify target markets for specific goods and services; determine the limits of test marketing techniques; use statistical methodology to evaluate test subjects, and develop a market plan.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
BUS	123	Business Math	4
ENG	124	College Composition†	3
SPH	121	Effective Speaking	3
			18
Semester II			
MKT	121	Principles of Marketing	3
BUS	221	Microeconomics	3
ACC	127	Quantitative Business Research Methods	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
			16
Semester III			
MGT	121	Principles of Management	3
BUS	222	Macroeconomics	3
MKT	221	Sales	3
MKT	222	Advertising	3
ACC	133	Managerial Accounting	4
MKT	227	Consumer Behavior	3
			19
Semester IV			
MKT	229	Market Planning	4
MKT	228	Business to Business Marketing	3
SOC	121	Sociology	3
ACC	130	Business Law and Ethics	3
MKT	233	Market Research	3
			16

69 SEMESTER CREDITS

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Marketing Management Technology

E-Commerce Marketing Option

Recently, 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 in the future.

The goal is that graduates of this option 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			
BUS	121	Business Administration	4
BUS	123	Business Math	4
ENG	124	College Composition†	3
SPH	121	Effective Speaking	3
ECA	228	Internet/Intranet Software Design Applications I	3
			17
Semester II			
MKT	121	Principles of Marketing	3
ACC	127	Quantitative Business Research Methods	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
ECA	229	Internet/Intranet Software Design Applications II	3
			16
Semester III			
MGT	121	Principles of Management	3
BUS	221	Microeconomics	3
MKT	232	Internet Marketing	2
MKT	222	Advertising	3
ACC	133	Managerial Accounting	4
ECA	225	Applied Interactive Software	3
			18
Semester IV			
MKT	229	Market Planning	4
BUS	222	Macroeconomics	3
MKT	228	Business to Business Marketing	3
SOC	121	Sociology	3
ACC	130	Business Law and Ethics	3
IMT	124	Design for Internet with DreamWeaver	3
			19

70 SEMESTER CREDITS

† Based on SSCT placement score.

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COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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Marketing Management Technology

Sales Option

Effective selling isn't simply a matter of persuading others to buy. In fact, it's more accurately described today as helping others to satisfy their wants and needs.

U.S. Census data show that nearly 15% of the total labor force is employed in personal selling. When we include selling for non-profit organizations, we find that more than nine million people are employed in sales.

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.

Many sales people earn a good living. Compensations are generally paid in proportion to the amount of sales generated.

Selling provides an excellent opportunity for people who do not like close supervision but still want the security of working for a large organization. A career in sales enables individuals to operate virtually as independent business people.

The goal is that graduates of this option will be able to make presentations in a professional manner using PowerPoint software; understand the concepts of customer relationship between selling and marketing; and be able to develop a sales force compensation system. 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			
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
BUS	123	Business Math	4
ENG	124	College Composition†	3
SPH	121	Effective Speaking	3
			18
Semester II			
MKT	121	Principles of Marketing	3
BUS	221	Microeconomics	3
ACC	127	Quantitative Business Research Methods	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
			16
Semester III			
MGT	122	Principles of Management	3
BUS	222	Macroeconomics	3
MKT	221	Sales	3
ACC	133	Managerial Accounting	4
MKT	227	Consumer Behavior	3
			16
Semester IV			
MGT	221	Supervision	3
SOC	121	Sociology	3
ACC	130	Business Law and Ethics	3
MKT	229	Market Planning	4
MKT	226	Purchasing	3
MGT	224	Human Resource Management	3
			19

69 SEMESTER CREDITS

* Successful completion of OAD102, 104, 105 and 106 is equivalent to and may be substituted for CAP120.

† Based on SSCT placement score.

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Operations Management Technology

The heart of the free enterprise system in the United States has always been its manufacturers.

Operations management has become a challenging and vital element of American business. U.S. firms are as good as, or better than, competitors anywhere in the world.

Some of the major developments implemented by U.S. firms include: a customer focus, cost savings through site selection, faster response time to the market through flexible manufacturing, more savings on the plant floor through lean manufacturing, computer-aided manufacturing, total quality management and better statistical control techniques.

Operations refers to any process that accepts inputs and uses resources to change those inputs into useful outputs. Operations may include production operations such as computer manufacturers, building contractors and coal mines, or service operations such as hospitals, universities and banks.

The goal is that entry level graduates will be able to analyze and compare the major tasks of production and operations management; understand and apply quality control and other total quality management concepts; demonstrate statistical process control techniques; describe how personal and organizational values influence operations managers; and demonstrate and apply communications skills and quantitative methods.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
BUS	121	Business Administration	4
CAP	120	Business Computer Applications*	4
MTH	121	Intermediate Algebra and Trigonometry I	4
ENG	124	College Composition†	3
SPH	121	Effective Speaking	3
			18
Semester II			
MGT	121	Principles of Management	3
MKT	121	Principles of Marketing	3
MTH	222	Statistics	3
ENG	123	Business Communication	3
ACC	132	Financial Accounting	4
			16
Semester III			
MGT	227	Operations Management	4
MGT	221	Supervision	3
ACC	133	Managerial Accounting	4
BUS	221	Microeconomics	3
SOC	121	Sociology	3
			17
Semester IV			
PHY	101	Principles of Physics	3
MGT	224	Human Resource Management	3
ACC	130	Business Law and Ethics	3
MGT	223	Business Decision Making	4
BUS	222	Macroeconomics	3
MKT	226	Purchasing	3
			19

70 TOTAL CREDIT HOURS

* Successful completion of OAD102, 104, 105 and 106 is equivalent to and may be substituted for CAP120.

† Based on SSCT placement score.

FRANKLIN UNIVERSITY

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Business Technologies

Career Enhancement Programs*

Stark State College recognizes that not all students will seek an associate's degree. Individuals might need to develop specific sets of skills to qualify for or improve their performance in a given career setting. In response to this need, Stark State has developed "career enhancement" programs which document a student's proficiency in a variety of knowledge areas. The following series of courses are offered to non-degree seeking individuals desiring an opportunity to gain or improve marketable skills.

These courses are offered on campus, however, on-site training is also available for companies.

Students who decide to enroll in an associate degree program may apply these courses toward the degree if it is in the same area of study. Application for the "career enhancement" program should be made to the appropriate department head or academic dean.

Accounting and Finance

Financial Accounting
- Quantitative Methods of Accounting and Finance (ACC127)
- Financial Accounting (ACC132)
- Intermediate Accounting I (ACC221)
- Intermediate Accounting II (ACC222)

Managerial Accounting
- Quantitative Methods of Accounting and Finance (ACC127)
- Financial Accounting (ACC132)
- Managerial Accounting (ACC133)
- Cost Accounting (ACC223)

Taxation
- Taxation (ACC124)
- Current Accounting Topics (ACC227)
- Advanced Taxation (ACC228)
- Estate and Income Tax Planning (FIN223)

Administrative Information

Real Time Transcription
- CR Theory I (CCR121)
- CR Theory II (CCR122)
- Speed Building I (CCR129)
- Speed Building II (CCR 130-optional)

Broadcast Captioning
- Broadcast Captioning I (CCR230)
- Broadcast Captioning II (CCR235)
- Technical Electives - 9 hours (see Department Head)

Legal Assisting
- Legal Transcription (CCR128)
- Legal Office Procedures (OAD224)
- Legal Research andWriting (OAD235)
- Legal Office Applications (OAD237)

Administrative Information *(continued)*

Desktop Publishing
- Desktop Publishing – Microsoft Publisher (OAD128)
- Graphic Design Concepts (OAD131)
- Presentations – Microsoft PowerPoint (OAD233)
- Web Publishing – Microsoft Front Page (OAD238)

Management and Marketing

Quality Management
- Principles of Management (MGT121)
- Supervision (MGT221)
- Business Decision-Making (MKT233)
- Operations Management (MGT227)

International Business
- International Business (MGT232)
- International Economics (BUS223)
- International Law (ACC134)

Sales
- Sales (MKT221)
- Consumer Behavior (MKT227)
- Principles of Marketing (MKT121)
- Purchasing (MKT226)

Supervision
- Principles of Management (MGT121)
- Supervision (MGT221)
- Cultural Diversity (SOC225)
- Effective Speaking (SPH121)

*These programs offer professional development for those already employed in the field and may also serve as a starting point for those considering the pursuit of a full associate degree program. Existing knowledge or skill base is assumed for certain courses. Absence of same may require prerequisite coursework. Applicants must secure department head or academic dean approval before completing the registration process. Non-degree seeking students may not be eligible for financial aid.

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Engineering Technologies

Students majoring in engineering technologies may pursue the associate of applied science degree in a variety of engineering technology programs such as: applied industrial technology, civil technology, design technology, electrical technology, electronic technology, electric power utility technology, environmental health and safety technology, HVAC technology, and mechanical 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 operations and maintenance in manufacturing.

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.

FirstEnergy

FRANKLIN UNIVERSITY

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

Applied Industrial Technology

The applied industrial technology degree program offers careers in fields which include both basic and advanced manufacturing.

The program provides knowledge of traditional manufacturing methods as well as state-of-the art and emerging technologies. Areas of expertise include robotics, computer control and advanced materials and processes.

The Stark State program is designed in a building block style which includes basic 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			
MTH	101	Introduction to Algebra	4
ENG	124	College Composition †	3
EST	130	Electrical Circuits and Devices	4
ECA	122	Computer Applications for Technical Professionals	3
MST	121	Blueprint Reading	2
			16
Semester II			
ACC	130	Business Law and Ethics	3
MTH	121	College Algebra and Trigonometry I	4
MST	134	Hydraulic and Pneumatic Systems - Principles and Apps*	6
MET	123	Material Science	2
MST	131	Statistical Process Control Charts	2
			17
Semester III			
SPH	122	Inter-group Communications	3
PHY	121	Physics I	4
IET	228	Introduction to Robotics	2
ENG	221	Technical Report Writing	3
MET	225	Manufacturing Processes	3
			15
Semester IV			
BUS	122	Basic Economics	3
MST	221	Mechanical Drive Components	3
		Technical Electives	13
			19

67 TOTAL CREDIT HOURS

* May also be taken as two 8-week courses: Hydraulic/Pneumatic Principles (MST122) and Hydraulic/Pneumatic Applications (MST123).

† Based on SSCT placement score.

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Applied Industrial Technology

Electrical Maintainer Corporate Option*

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
MTH	101	Introduction to Algebra	4
ENG	124	College Composition †	3
AIT	130	Applied Industrial Technology	4
AIT	131	Industrial Electrical Systems I	5
			19
Semester II			
MTH	121	College Algebra and Trigonometry I	4
PHY	121	Physics I	4
AIT	132	Industrial Electrical Systems II	5
AIT	133	Industrial Electrical Applications	4
			17
Semester III			
ENG	221	Technical Report Writing	3
SPH	122	Inter-group Communications	3
AIT	134	Applied Industrial Electronics I	6
AIT	135	Applied Industrial Electronics II	4
			16
Semester IV			
BUS	122	Basic Economics	3
		Technical Electives	13
			16

68 TOTAL CREDIT HOURS

* Option is restricted to corporate sponsorship.
† Based on SSCT placement score.

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Applied Industrial Technology

Mechanical Maintainer Corporate Option*

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
MTH	101	Introduction to Algebra	4
AIT	130	Applied Industrial Technology	4
AIT	141	Mechanical Systems I	8
			19
Semester II			
MTH	121	College Algebra and Trigonometry I	4
ENG	124	College Composition †	3
PHY	121	Physics I	4
AIT	142	Mechanical Systems II	4
			16
Semester III			
ENG	221	Technical Report Writing	3
SPH	122	Inter-group Communications	3
AIT	143	Process Control Systems	6
AIT	144	Welding Principles and Applications	5
			17
Semester IV			
BUS	122	Basic Economics	3
		Technical Electives	13
			16

68 TOTAL CREDIT HOURS

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† Based on SSCT placement score.

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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 of Technology 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).

A graduate of this program will earn an associate of applied science degree in civil engineering technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition †	3
MTH	121	College Algebra and Trigonometry I	4
PHY	121	Physics I	4
CET	121	Building Materials and Construction Methods	3
CET	122	Architectural Drafting I	3
ETD	121	Engineering Technology Seminar	1
			18
Semester II			
MTH	122	College Algebra and Trigonometry II	3
PHY	122	Physics II	4
MET	124	Statics and Strengths of Materials	4
ECA	122	Computer Applications for Technical Professionals	3
CET	125	Soil Mechanics	3
CET	124	Highway and Map Drawing	2
			19
Semester III			
ENG	221	Technical Report Writing	3
MTH	221	Concepts of Calculus	3
CET	227	Surveying I	3
CET	223	Structural Design I	3
CET	222	Concrete and Asphalt Testing	3
CET	232	Land Planning and Design	3
			18
Semester IV			
SPH	122	Inter-group Communications	3
CET	226	Estimating	3
CET	224	Structural Design II	3
CET	225	Site and Building Service Systems	3
CET	228	Surveying II	3
BUS	122	Basic Economics	3
			18

73 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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Civil Engineering Technology

Architectural Major

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).

A graduate of this program will earn an associate of applied science degree in civil engineering technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition †	3
MTH	121	College Algebra and Trigonometry I	4
PHY	121	Physics I	4
CET	121	Building Materials and Construction Methods	3
CET	122	Architectural Drafting I	3
ETD	121	Engineering Technology Seminar	1
			18
Semester II			
MTH	122	College Algebra and Trigonometry II	3
PHY	122	Physics II	4
MET	124	Statics and Strengths of Materials	4
ECA	122	Computer Applications for Technical Professionals	3
CET	123	Architectural Drafting II	3
DET	125	Basic AutoCAD	3
			20
Semester III			
ENG	221	Technical Report Writing	3
MTH	221	Concepts of Calculus	3
CET	227	Surveying I	3
CET	223	Structural Design I	3
CET	232	Land Planning and Design	3
CET	235	Project Administration	3
			18
Semester IV			
SPH	122	Inter-group Communications	3
CET	226	Estimating	3
CET	225	Site and Building Service Systems	3
CET	233	Architectural Design	3
CET	234	A/E CAD	2
BUS	122	Basic Economics	3
			17

73 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP
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Civil Engineering Technology

Surveying Major

Today's surveying technician must have skills in many areas, including mathematics, law, history, methods of measurement, graphics, global positioning and site planning.

A surveying technician assists professional surveyors in performing subdivision design, property and topographic surveys, establishing control for aerial surveying, preparing legal descriptions and controlling construction projects.

In the classroom, laboratory and field, we introduce students to the fundamentals of surveying, equipment usage, graphics (both manual and computerized), subdivision planning, control surveys, global positioning principles, subdivision design and legal principles of boundary location.

The graduate will have theoretical background and strong practical applications experience.

Upon completion of the surveying major, graduates are qualified to work in the following areas: establishing land boundaries, researching deeds, drafting, land development, global positioning surveying, construction layout and control, collection of data for charts and maps, and preparation of legal descriptions.

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

A graduate of this program will earn an associate of applied science degree in civil engineering technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition †	3
MTH	121	College Algebra and Trigonometry I	4
PHY	121	Physics I	4
CET	121	Building Materials and Construction Methods	3
CET	227	Surveying I	3
ETD	121	Engineering Technology Seminar	1
			18
Semester II			
MTH	122	College Algebra and Trigonometry II	3
PHY	122	Physics II	4
MET	124	Statics and Strengths of Materials	4
ECA	122	Computer Applications for Technical Professionals	3
CET	124	Highway and Map Drawing	2
CET	228	Surveying II	3
			19
Semester III			
ENG	221	Technical Report Writing	3
MTH	221	Concepts of Calculus	3
CET	222	Concrete and Asphalt Testing	3
CET	232	Land Planning and Design	3
CET	231	Legal Principles of Surveying	3
DET	125	Basic AutoCAD	3
			18
Semester IV			
SPH	122	Inter-group Communications	3
CET	226	Estimating	3
CET	229	Surveying III	3
CET	221	Surveying Graphics	3
CET	236	Global Positioning System	3
BUS	122	Basic Economics	3
			18

73 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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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).

A graduate of this program will earn an associate of applied science degree in design engineering technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
DET	121	Engineering Drawing	3
ENG	124	College Composition †	3
ETD	121	Engineering Technology Seminar	1
MTH	121	College Algebra and Trigonometry I	4
PHY	121	Physics I	4
			15
Semester II			
DET	122	Descriptive Geometry	3
DET	124	Working Drawings	3
DET	125	Basic AutoCAD	3
MTH	122	College Algebra and Trigonometry II	3
PHY	122	Physics II	4
ECA	122	Computer Applications for Technical Professionals	3
			19
Semester III			
DET	231	Tool Design	3
SPH	122	Inter-group Communications	3
MET	225	Manufacturing Processes	3
MET	124	Statics and Strengths of Materials	4
MTH	221	Concepts of Calculus	3
		Design Elective I (CAD)	3
			19
Semester IV			
DET	223	Kinematics	3
MET	228	Machine Design	4
DET	226	Geometric Dimensioning and Tolerancing	2
BUS	122	Basic Economics	3
ENG	221	Technical Report Writing	3
		Design Elective II (CAD)	3
			18

71 TOTAL CREDIT HOURS

† Based on SSCT placement score.

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.)

A graduate of this program will earn an associate of applied science degree.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
MTH	101	Introduction to Algebra	4
ENG	124	College Composition †	3
EUT	121	Overhead Line Technology I *or* Substation Technology I (EUT 123)	6
			16
Semester II			
MTH	121	College Algebra and Trigonometry I	4
EET	120	DC Circuit Analysis	4
SPH	122	Inter-group Communications	3
EUT	122	Overhead Line Technology II *or* Substation Technology II (EUT 124)	6
			17
Semester III			
ETD	202	Engineering Technology Division - Independent Study	2
			2
Semester IV			
PHY	101	Principles of Physics	4
EET	128	NEC and Electrical Systems Design	2
EET	122	AC Circuit Analysis	4
ACC	130	Business Law and Ethics	3
EUT	221	Overhead Line Technology III *or* Substation Technology III (EUT 224)	6
			19
Semester V			
EUT	223	Electrical Power Transmission and Distribution	3
ENG	221	Technical Report Writing	3
BUS	122	Basic Economics	3
EST	129	Switchgear, Transformers and Controls	2
EUT	222	Overhead Line Technology IV *or* Substation Technology IV (EUT 225)	7
			18

72 TOTAL CREDIT HOURS

* Enrollment and participation in this program is at the sole discretion of the FirstEnergy Corp.
† Based on SSCT placement score.

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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).

A graduate of this program will earn an associate of applied science degree in electrical engineering technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
EET	120	DC Circuit Analysis	4
ETD	121	Engineering Technology Seminar	1
ENG	124	College Composition †	3
MTH	121	College Algebra and Trigonometry I	4
PHY	121	Physics I	4
			19
Semester II			
EET	122	AC Circuit Analysis	4
EET	123	Electronic Devices and Circuits	4
EET	125	Circuit Manufacturing Techniques	1
EET	126	Electrical Machines	4
ECA	222	Introduction to C++ Programming	3
MTH	122	College Algebra and Trigonometry II	3
			19
Semester III			
DET	125	Basic AutoCad	3
EET	128	NEC and Electrical Systems Design	2
SPH	122	Inter-group Communications	3
EET	227	Industrial Controls I	3
MTH	221	Concepts of Calculus	3
ENG	221	Technical Report Writing	3
			17
Semester IV			
EET	226	Transmission and Distribution	3
EET	228	Industrial Controls II	3
EET	232	Industrial Electronics	3
EET	223	Technical Project – Electrical	1
EET	129	Optics	2
BUS	122	Basic Economics	3
			15

70 SEMESTER CREDITS

† Based on SSCT placement score.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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Electrical Maintenance Technology

This degree program provides an understanding of the installation, operation, 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 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 fundamentals, digital electronics, electrical and electronic trouble-shooting, digital communications, transformers, National Electric Code, electrical machines, industrial controls, programmable controllers, hydraulics, pneumatics and refrigeration. This knowledge is essential for graduates who are required to maintain and repair modern electrical/electronic equipment.

A graduate of this program will earn an associate of applied science degree in electrical maintenance.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
EET	120	DC Circuit Analysis	4
ETD	121	Engineering Technology Seminar	1
EST	129	Switchgear, Transformers and Control	2
ENG	124	College Composition †	3
PHY	121	Physics I	4
MTH	121	College Algebra and Trigonometry I	4
			18
Semester II			
EET	125	Circuit Manufacturing Techniques	1
EET	123	Electronic Devices and Circuits	4
EET	126	Electrical Machines	4
ECA	122	Computer Applications for Technical Professionals	3
ECA	222	Introduction to C++ Programming	3
EET	122	AC Circuit Analysis	4
			19
Semester III			
EET	128	NEC and Electrical Systems Design	2
EET	227	Industrial Controls I	3
EST	221	Electronic Troubleshooting	3
SPH	122	Inter-group Communications	3
EET	262	Pulse and Digital Integrated Circuit	4
MST	122	Hydraulics and Pneumatics Principles	3
			18
Semester IV			
EET	228	Industrial Controls II	3
EET	232	Industrial Electronic	3
EET	244	Electronic Telecommunications	3
BUS	122	Basic Economics	3
HVC	121	HVAC Principles I	3
ENG	221	Technical Report Writing	3
			18

73 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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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: 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).

A graduate of this program will earn an associate of applied science degree in electronic engineering technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
EET	120	DC Circuit Analysis	4
ETD	121	Engineering Technology Seminar	1
ENG	124	College Composition †	3
MTH	121	College Algebra and Trigonometry I	4
PHY	121	Physics I	4
			19
Semester II			
DET	125	Basic AutoCAD	3
EET	123	Electronic Devices and Circuits	4
EET	125	Circuit Manufacturing Techniques	1
EET	129	Optics	2
MTH	122	College Algebra and Trigonometry II	3
EET	122	AC Circuit Analysis	4
			17
Semester III			
EET	262	Pulse and Digital Integrated Circuits	4
ECA	222	Introduction to C++ Programming	3
EET	248	Workstation Interfacing	3
EET	230	Electronic Circuits I	3
MTH	221	Concepts of Calculus	3
ENG	221	Technical Reporting Writing	3
			19
Semester IV			
EET	225	Digital Communications and Systems Analysis	3
EET	231	Electronic Circuits II	3
EET	232	Industrial Electronics	3
EET	235	Technical Project – Electronic	1
SPH	122	Inter-group Communications	3
BUS	122	Basic Economics	3
			16

71 TOTAL CREDIT HOURS

† Based on SSCT placement score.

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 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 environmental 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 environmental program will be uniquely qualified to meet the needs of both the private and public sectors as they face growing environmental regulation and concern.

A graduate of this program will receive an associate of applied science degree in environmental technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
MTH	121	College Algebra and Trigonometry I	4
ENG	124	College Composition †	3
BIO	126	Science, Energy and the Environment	4
ETD	121	Engineering Technology Seminar	1
CHM	121	General Chemistry	4
BUS	122	Basic Economics	3
			19
Semester II			
CHM	122	Organic and Biological Chemistry	4
MTH	222	Statistics	3
ECA	122	Computer Applications for Technical Professionals	3
ENV	221	OSHA - 40-hour HAZWOPER	2
ENV	121	Regulations and Compliance	3
			15
Semester III			
ENV	222	Environmental Systems	3
ENV	223	Basic Geology/Hydrology	3
ENV	224	Air Sampling, Analysis, and Control	3
ACC	130	Business Law and Ethics	3
SPH	122	Inter-group Communications	3
			15
Semester IV			
ENV	236	Environmental Health and Safety Special Projects	3
ENG	221	Technical Report Writing	3
ENV	225	Solid and Hazardous Waste Sampling, Analysis and Management	3
ENV	226	Water Sampling, Analysis, and Control	3
ENV	228	Health and Safety	3
ENV	230	OSHA 8-hour Refresher*	1
			15/16

64/65 TOTAL CREDIT HOURS

† Based on SSCT placement score.

* ENV 230 may be taken by students who wish to complete annual refreshers of their 40-hour HAZWOPER training. One refresher is already included as part of ENV 225.

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Heating, Ventilating, and Air Conditioning Technology

Today's heating, ventilation, and air conditioning (HVAC) industry makes possible the food we eat, our unparalleled medical capabilities, and our home comfort. In fact, it supports almost every component of our way of life. The HVAC industry is growing and becoming more 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.

A graduate of this program will earn an associate of applied science degree in heating, ventilating and air conditioning technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition †	3
MTH	101	Introduction to Algebra	4
HVC	121	HVAC Principles I	3
EST	130	Electrical Circuits and Devices	4
CET	121	Building Materials and Construction	3
			17
Semester II			
ECA	122	Computer Applications for Technical Professionals	3
HVC	122	HVAC Principles II	3
HVC	123	Sheet Metal Layout I	3
HVC	227	HVAC Field Installation Techniques/Procedures	4
PHY	101	Principles of Physics	4
			17
Semester III			
MST	121	Blueprint Reading	2
MST	126	Pipefitting Principles	2
HVC	222	HVAC Design and Application	3
HVC	223	HVAC System Operation and Troubleshooting - Heating	3
SPH	122	Inter-group Communications	3
ACC	130	Business Law and Ethics	3
			16
Semester IV			
BUS	122	Basic Economics	3
HVC	224	HVAC System Operation and Troubleshooting - Cooling	3
HVC	226	Sheet Metal Layout II	3
ENG	221	Technical Report Writing	3
HVC	232	Advanced HVAC Applications and Controls	3
			15

65 TOTAL CREDIT HOURS

†Based on SSCT placement score.

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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Heating, Ventilating, and Air Conditioning Technology

Certificate Programs

The HVAC technician program prepares each technician to work in the HVAC trade as a trainee or as an entry-level technician. Emphasis is placed upon familiarization of HVAC systems and safety in the workplace.

HVAC TECHNICIAN (Level I)

Prerequisite: MTH101 or passing score on Compass Algebra Test

			Credit Hours
HVC	121	HVAC Principles I	3
HVC	122	HVAC Principles II	3
HVC	227	HVAC Field Installation Techniques and Procedures	4
EST	130	Electrical Circuits and Devices	4
			14

HVAC TECHNICIAN (Level II)

Prerequisite: Successful completion of HVAC Technician Level I Credit Certificate Program

			Credit Hours
MST	121	Blueprint Reading	2
MST	126	Pipefitting Principles	2
HVC	222	HVAC Design and Application	3
HVC	223	HVAC System Operation and Troubleshooting - Heating	3
HVC	224	HVAC System Operation and Troubleshooting - Cooling	3
			13

HVAC DESIGN AND APPLICATION TECHNICIAN

Prerequisite: Successful completion of HVAC Technician Level I Credit Certificate Program

			Credit Hours
HVC	222	HVAC Design and Application	3
HVC	232	Advanced HVAC Applications	3
HVC	233	HVAC Bid Specification	3
CET	121	Building Materials and Construction	3
			12

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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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 a mechanical engineering technician, 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 mechanical engineering technician may be involved in the selection and coordination of equipment and processes for manufacturing. Therefore, they must have an understanding of processes, materials and supervision.

The mechanical engineering technology program provides students with theory and practical application through many hours of actual lab test work.

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

A graduate of this program will earn an associate of applied science degree in mechanical engineering technology.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ENG	124	College Composition †	3
MTH	121	College Algebra and Trigonometry I	4
DET	121	Engineering Drawing	3
ETD	121	Engineering Technology Seminar	1
PHY	121	Physics I	4
MET	123	Material Science	2
			17
Semester II			
MTH	122	College Algebra and Trigonometry II	3
PHY	122	Physics II	4
MET	124	Statics and Strength of Materials	4
MET	225	Manufacturing Processes	3
ECA	122	Computer Applications for Technical Professionals	3
			17
Semester III			
SPH	122	Inter-group Communications	3
MTH	221	Concepts of Calculus	3
MET	228	Machine Design	4
MET	221	Advanced Strength of Materials	2
MET	222	Fluid Power	4
DET	125	Basic AutoCAD or ProEngineer (DET131)	3
			19
Semester IV			
ENG	221	Technical Report Writing	3
BUS	122	Basic Economics	3
MET	223	Dynamics	2
EST	130	Electrical Circuits and Devices	4
MET	227	Thermodynamics and Heat Transfer	3
MET	226	Technical Project	2
			17

70 TOTAL CREDIT HOURS

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

† Based on SSCT placement score.

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Engineering Technologies

Career Enhancement Programs*

Stark State College recognizes that not all students will seek an associate's degree. Students might need to develop specific sets of skills to qualify for or improve performance in a given career setting. In response to this need, Stark State has developed "career enhancement" programs which document a student's proficiency in a variety of knowledge areas. The following series of courses are offered to non-degree seeking individuals desiring an opportunity to gain or improve marketable skills.

These courses are offered on a continuing basis at our campus location. We welcome inquiries from companies that may wish to investigate the possibility of offering them on-site at company locations.

Students enrolling in an associate degree program may apply these courses toward the degree if it is in the same area of study. Application for the "career enhancement" program should be made to the appropriate department head or academic dean.

Civil Engineering Technology

Architectural Drafting Certificate
- Architectural Drafting I (CET122)
- Architectural Drafting II (CET123)
- Basic AutoCAD (DET125)
- A/E CAD (CET 234)
- Building Materials and Construction Methods (CET121)

Civil/Surveying Drafting Certificate
- Architectural Drafting I (CET122)
- Highway and Map Drawing (CET124)
- Basic AutoCAD (DET125)
- Surveying Graphics (CET221)
- Building Materials and Construction Methods (CET121)
- Construction Materials Inspection Certificate
- Building Materials and Construction Methods (CET121)
- Concrete and Asphalt Testing (CET222)
- Soil Mechanics (CET125)

Civil/Surveying Certificate
- Surveying I (CET227)
- Surveying II (CET228)
- Surveying III (CET229)
- Surveying Graphics (CET221)
- Global Positioning System (CET236)

Design Engineering Technology

AutoCAD Certificate
- Basic AutoCAD (DET125)
- Customizing AutoCAD (DET126)
- Advanced AutoCAD (DET230)

Computer-Aided Design Certificate
- Jig and Fixture Design (DET221)
- Die Design (DET225)
- Geometric Dimensioning and Tolerancing (DET226)

Industrial Engineering Technology

Quality Assurance Certificate
- Statistical Quality Control (IET222)
- Dimensional Metrology and Inspection I (IET270)
- Dimensional Metrology and Inspection II (IET269)
- Quality Systems, Audits and Certifications (IET268)

Production Specialist Certificate
- Work Measurement (IET221)
- Statistical Quality Control (IET222)
- Production Planning and Inventory Control (IET224)
- Process Improvement, Methods and Measurements (IET268)

Mechanical Engineering Technology

Machine Design Certificate
- Advanced Strength of Materials (MET221)
- Machine Design (MET122)
- Technical Project (MET226)

Mechanical Power Certificate
- Machine Design (MET122)
- Fluid Power (MET222)
- Electrical Circuits and Devices (EST130)

*These programs offer professional development for those already employed in the field and may also serve as a starting point for those considering the pursuit of a full associate degree program. Existing knowledge or skill base is assumed for certain courses. Absence of same may require prerequisite coursework. Applicants must secure department head or academic dean approval before completing the registration process. Non-degree seeking students may not be eligible for financial aid.

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General Studies

This area of Stark State College is interdisciplinary and its departments serve the basic educational needs of all technical degree and certificate programs throughout the College. The "core" curriculum courses of the College are administered through the general studies area of the College. Virtually all students take general studies courses. Most technical degree programs require 21 credit hours in general studies courses.

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 general studies faculty support this mission by providing students with expanded learning and enhanced analytical skills. The transferable skills, which are a fundamental basis to successful work performance, future growth and education, have a high priority. Our goal is to provide a foundation 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 general studies 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 they 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.

Associate of Science Degree (A.S.)

Stark State College offers an Associate of Science degree for the student who is an undeclared major or undecided about the course of study to pursue. It is also a perfect course of study for the health general student who may be awaiting admission to a specific health technology.

The Associate of Science degree is jointly awarded by Stark State College and Kent State University. The program gives students the option of pursuing a four-year Bachelor of Science degree at a four-year college or university.

Due to the proximity of the two campuses, Stark State College and Kent State University - Stark Campus have established a specific program. The following principles apply in a reciprocal program:

- Stark State students will take a minimum of 45 credits at Stark State College and a minimum of 15 credits at the Kent State University - Stark campus.
- Kent State – Stark students will take a minimum of 45 credits at Kent State - Stark and a minimum of 15 credits at Stark State College.
- A specific number of courses in English, mathematics, arts and humanities, social science and natural and physical sciences will generally be required.

Students in the Associate of Science degree program must meet with advisors on both campuses involved for appropriate advising and to be certain that selected courses for completion of the Associate of Science degree will transfer to the four-year college or university selected.

For additional information about the Associate of Science Degree, please contact the Office of Admissions/Student Services or the Dean of General Studies/Public Service Technologies.

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

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 degree 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 heads and the major division chairperson will work out the program of study with the student. Final approval will be granted by the vice president for instructional and corporate services.

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 area of specialization can be formed either by:

1. a combination of technical courses selected from technical programs offered by the College to serve the educational needs of the individual that are not addressed by a program currently being offered, or by
2. courses or training received from another post-secondary institution, vocational center or institution that is judged to be of college level and for which the College awards degree credit to a maximum of 30 semester credit hours, and
3. students are encouraged to take 3 - 5 credit hours from the interdisciplinary studies (IDS) sequence.

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

Applications for this degree are available in the Office of Admissions/Student Services.

The College also has a non-traditional program called "experiential learning" to help individuals get college credit for their professional experience in business, industry and the community and enable them to begin working toward an associate degree. For additional information, contact the Office of Admissions/Student Services.

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Health Technologies

Health technologies are those areas 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 machines and techniques change, 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 technology, the faculty, college and curriculum must be reviewed and must meet the standards of professional health accreditation bodies. All of the degree granting technologies in the health technologies division have received multiple-year accreditation or certification.

Health technologies students at Stark State College spend time in the classroom and laboratory, learning the techniques and skills of their profession. Having learned these skills, students work and learn in a clinical setting to gain practical experience in their field 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 Technologies.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

Application Requirements for Health Technologies

Applications for the Health Technologies are available in the **Office of Admissions/Student Services**. Applications that have been filled out are to be returned to the **Registration Office**. The following steps should be completed by anyone wishing to apply to a health program.

1. Submit a Stark State College of Technology application and an official high school transcript to the **Registration Office**.
2. Take the SSCT pre-admission placement tests.
3. Submit official college transcripts from any other institutions to the **Registration Office**. (It is the student's responsibility to review the evaluated transcript for accuracy before submitting the health application.)
4. Meet with an advisor to discuss all course and GPA requirements.
5. Complete all program-specific tour, volunteer or testing requirements. Submit the appropriate form to the **Registration Office**.

Information on program-specific requirements and deadlines can be obtained by contacting the **Office of Admissions/Student Services** for a health application packet.

Applicants for the nursing LPN to RN option and the physical therapist assistant technology program are accepted on a selective basis. Any applicant who is not accepted in a given year must reapply the next year to be considered. Applications to these programs are available on July 1 at the **Office of Admissions/Student Services**. The applicant should submit the application to the **Registration Office** as soon as possible after that date. However, the application will not be considered complete until all requirements are complete.

Applicants are accepted to the other health technologies on a rolling admissions (first come, first placed) basis. Once a class is full for a particular year, valid applications are accepted for the next year. These applications are available in the **Office of Admissions/Student Services**, but should not be submitted to the **Registration Office** until all requirements are met. Please see the application packet for details about requirements.

Admission to a health technology 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 $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 technology 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 any felony or a misdemeanor related to alcohol/drugs 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 the principle of equal opportunity and does not discriminate on the basis of race, religion, national origin, gender, sexual orientation, age or disability. The College's equal opportunity guidelines apply to admission to all health technology 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 technologies can be obtained from the **Office of Admissions/Student Services** at 330-966-5450 or 1-800-797-8275.

Dental Hygiene Program

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.

While each state has its own specific regulations governing the dental hygienist's responsibilities, typical services provided in Ohio include: scaling and polishing teeth, taking and developing dental radiographs (x-rays), patient screening procedures, applying preventive materials such as sealants and fluorides, making impressions of patients' teeth for study models, counseling patients regarding nutrition, teaching appropriate oral hygiene techniques, and performing documentation and office management activities.

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.

Enrollment in the program is limited. Admission is offered to eligible applicants on a space-available basis. The dental hygiene program requires a separate application; admission to Stark State does not automatically mean acceptance into the dental hygiene program. Applicants must meet specific eligibility criteria, as described in program informational materials. Currently, prospective students must meet the following eligibility requirements:

- Be a high school graduate or have a GED certificate.
- Complete SSCT's Compass Assessment Test and take the courses recommended as a result of the test.
- Complete four eligibility (pre-application) courses – ENG124, PSY121, CHM121, BIO121 and their prerequisites according to the eligibility rules regarding minimum grade, age of course, and number of repeats/drops.
- Achieve a GPA of at least a 2.75 for the four eligibility courses.
- Maintain an overall college GPA of at least 2.00.
- Score at the 50th percentile or above on the PAX test.
- Complete the dental office experience requirement.
- Complete specified supplemental requirements.

Specific physical requirements are necessary to perform dental hygiene functions. Details are provided in program information materials or may be obtained from the dean of student services.

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. Other states may have different licensing requirements. Licensure is mandatory for employment as a dental hygienist.

Dental hygiene applicants/students should inform the program director of any misdemeanor related to alcohol or drugs, or felony convictions so that they may be informed of the steps the Ohio State Dental Board will take before considering their application for licensure (section 473.28 of the *Ohio Revised Code*).

The dental hygiene program is accredited by the Commission on Dental Accreditation. The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted by phone at 312-440-4653 or by mail at 211 East Chicago Avenue, Chicago, IL 60611.

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.

Dental Hygiene Program

SUGGESTED COURSE SEQUENCE

Summer I		Eligibility Courses	Credit Hours
CHM	121	General Chemistry	4
BIO	121	Anatomy and Physiology I	4
ENG	124	College Composition †	3
PSY	121	General Psychology	3
			14
Semester I			
DHY	121	Head, Neck and Oral Anatomy	2
DHY	122	Oral Histology and Embryology	1
DHY	123	Dental Radiography	3
DHY	131	Fundamentals of Dental Hygiene Practice	4
BIO	122	Anatomy and Physiology II	4
			14
Semester II			
DHY	124	Periodontology I	1
DHY	125	Dental Materials	3
DHY	126	Pathology	2
DHY	132	Dental Hygiene Theory I	2
DHY	133	Clinical Dental Hygiene I	2
BIO	221	Microbiology**	4
			14
Summer II			
DHY	134	Clinical Dental Hygiene IA	1
			1
Semester III			
DHY	221	Nutrition in Dentistry	1
DHY	222	Dental Pharmacology	2
DHY	223	Community Oral Health	2
DHY	231	Dental Hygiene Theory II	2
DHY	232	Clinical Dental Hygiene II	4
SOC	121	Sociology	3
			14
Semester IV			
DHY	224	Periodontology II	1
DHY	233	Dental Hygiene Theory III	2
DHY	234	Clinical Dental Hygiene III	5
SPH	121	Effective Speaking	3
PSY/PHL		Psychology/Philosophy Elective*	3
			14

71 SEMESTER CREDITS

* May select any PSY/PHL/SOC/SWK course of three credit hours or more.
** May not be taken earlier than three years prior to enrollment in DHY121.
† Based on SSCT placement score.

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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Health Information Technology

Health information technology is one of the fastest growing occupations in the country today. According to the *Occupational Outlook Handbook*, a career as a health information specialist or technician is one of the top 20 jobs of the future.

Graduates of health information technology associate degree programs are known as health information technicians or registered health information technicians (RHIT). Common job titles held by health information technicians in today's job market include: coder, medical record technician, registered health information technician, supervisor, reimbursement specialist and others. It is anticipated that job titles will change as health care enterprises expand their reliance on information systems and technology.

Health information technicians generally perform technical duties vital to the operation of a health care facility's medical record department. These may include analysis of the medical record; collection and preparation of statistical data, coding and abstracting of diseases and operations, and quality improvement activities. One of the most important job functions is to maintain the confidentiality of patient information and ensure the integrity of the record.

Registered health information technicians primarily are employed in hospitals, long-term care and outpatient facilities. In a small facility, the accredited health information technician may have full responsibility for the operation of the medical record department; while in a large institution, they may specialize in a particular function such as medical coding. There has been an increase in jobs in places such as insurance and billing companies, physician group practices, health maintenance organizations and mental health and rehabilitation facilities. Other places of employment, depending on education, skills and interest, include accounting firms, software vendors, research facilities and information system departments.

The health information 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. The maximum number of students accepted is 20.

Graduates of the health information technology program will be eligible to take the national accreditation 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).

Prospective students in the health information technology program must meet specific criteria as outlined in program preapplication requirements. Fulfilling the criteria does not guarantee admission to the program.

The health information technology program is accredited by the Commission on the Accreditation of Allied Health Education Programs (CAAHEP) in cooperation with the American Health Information Management Association's Council on Accreditation.

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Health Information Technology

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
HIT	121	Introduction to Health Information Technology	4
BIO	125	Medical Terminology	3
HIT	123	Medicolegal Aspects	2
BIO	123	Principles of Human Structure and Function	5
CAP	120	Business Computer Applications	4
			18
Semester II			
BIO	124	Pathophysiology	3
HIT	122	Ancillary Health Records and Registries	3
BIO	222	Pharmacology	3
HIT	124	Introduction to Coding	4
ENG	124	College Composition †	3
			16
Semester III			
HIT	221	Advanced Coding	3
HIT	222	Statistics/Data Retrieval	3
HIT	224	Health Care Quality Improvement	2
HIT	226	HIT Professional Practice I/Seminar I	4
ENG	122	Communication Theory***	3
		Social Science Elective*	3
			18
Semester IV			
ENG	222	Medical Technology Report Writing**	3
HIT	223	HIT Management**	3
HIT	228	Coding for Reimbursement	4
HIT	229	Information Systems in Health Care	3
HIT	227	HIT Professional Practice II/Seminar II	4
			17

69 SEMESTER CREDITS

* May select from Psychology or Sociology offerings.
** ENG 222 must be taken concurrently with HIT 223.
*** May substitute Effective Speaking (SPH 121)
† Based on SSCT placement score.
Course prerequisites stated in the catalog must be met.

FRANKLIN UNIVERSITY

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Massage Therapy Program

Massage therapy is a study of the interrelationship of body, mind and spirit. Massage therapists work with the soft tissues of the body. They are very effective at relieving pain syndromes involving the soft tissues.

Massage therapists work in a wide range of settings. Some work directly with physicians, chiropractors, physical therapists, counselors or other professionals. Others have their own businesses and work out of their own home, the homes of others, or their own office.

The State of Ohio Medical Board licenses massage therapists in Ohio. Ohio's licensed massage therapists are the only massage therapists in the United States who can, by license, refer to themselves as limited medical practitioners. They earn this honor by completing a rigorous curriculum designed to provide them with the basic tools needed to enter into the profession of massage therapy. The massage therapy programs presented at Stark State are approved by the State Medical Board of Ohio.

Massage therapists need to be capable of standing for an hour or more at a time, developing upper body strength to meet the physical demands of the profession, and be knowledgeable regarding the location and condition of human bones and muscles.

Following the chosen course of study most students elect to take the State Medical Board licensing examination and after licensure may establish a massage therapy practice in Ohio.

Stark State College offers two approaches to training as a massage therapist. The massage therapy certificate program enables students to complete the coursework necessary to sit for the licensing examination after completing 42 credit hours in four semesters.

The other option is the associate of technical studies degree with a massage therapy major. The degree program includes additional coursework for the business and management aspects of a massage therapy practice. The associate degree program would require students to complete 69 credit hours in five semesters.

Massage Therapy Certificate Program

SUGGESTED COURSE SEQUENCE

Program Beginning in Fall

			Credit Hours
Fall – Semester I			
MAS	121	Massage Therapy I	6
BIO	121	Anatomy and Physiology I	4
ENG	124	College Composition †	3
MAS	123	Massage Therapy Anatomy and Physiology I	1
			14
Spring – Semester II			
MAS	122	Massage Therapy II	2
MAS	224	Massage Therapy III	4
BIO	122	Anatomy and Physiology II	4
MAS	124	Massage Therapy Anatomy and Physiology II	1
MAS	227	Massage Therapy Procedures	2
PHL	122	Ethics	3
			16
Summer – Semester III			
MAS	225	Massage Therapy IV	2
		Electives*	4
			6
Fall – Semester IV			
MAS	226	Massage Therapy V	3
MAS	223	Massage Therapy Review	3
			6

Program Beginning in Spring

			Credit Hours
Spring – Semester I			
MAS	121	Massage Therapy I	6
BIO	121	Anatomy and Physiology I	4
PHL	122	Ethics	3
MAS	123	Massage Therapy Anatomy and Physiology I	1
			14
Summer – Semester II			
MAS	122	Massage Therapy II	2
		Electives *	4
			6
Fall – Semester III			
MAS	224	Massage Therapy III	4
MAS	225	Massage Therapy IV	2
BIO	122	Anatomy and Physiology II	4
ENG	124	College Composition †	3
MAS	124	Massage Therapy Anatomy and Physiology II	1
MAS	227	Massage Therapy Procedures	2
			16
Spring – Semester IV			
MAS	226	Massage Therapy V	3
MAS	223	Massage Therapy Review	3
			6

42 TOTAL CREDIT HOURS

* May select from BUS121, BUS123 or CAP 120. † Based on SSCT placement score.

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Massage Therapy Program

Associate of Technical Studies Massage Therapy Major

SUGGESTED COURSE SEQUENCE

Program Beginning in Fall

Fall – Semester I			Credit Hours
MAS	121	Massage Therapy I	6
BIO	121	Anatomy and Physiology I	4
MAS	123	Massage Therapy Anatomy and Physiology I	1
BIO	125	Medical Terminology	3
BUS	121	Business Administration	4
			18

Spring – Semester II			
MAS	122	Massage Therapy II	2
MAS	224	Massage Therapy III	4
BIO	122	Anatomy and Physiology II	4
MAS	124	Massage Therapy Anatomy and Physiology II	1
MAS	227	Massage Therapy Procedures	2
ENG	124	College Composition †	3
PHL	122	Ethics	3
			19

Summer – Semester III			
MAS	225	Massage Therapy IV	2
BUS	123	Business Math	4
			6

Fall – Semester IV			
MAS	226	Massage Therapy V	3
MAS	223	Massage Therapy Review	3
ACC	121	Principles of Accounting I	4
CAP	120	Business Computer Applications	4
			14

Spring – Semester V			
PSY	121	General Psychology	3
SOC	121	Sociology	3
MGT	121	Principles of Management	3
MKT	121	Principles of Marketing	3
			12

Program Beginning in Spring

Spring – Semester I			Credit Hours
MAS	121	Massage Therapy I	6
BIO	121	Anatomy and Physiology I	4
BUS	121	Business Administration	4
BUS	123	Business Math	4
MAS	123	Massage Therapy Anatomy and Physiology I	1
			19

Summer – Semester III			
MAS	122	Massage Therapy II	2
CAP	120	Business Computer Applications	4
			6

Fall – Semester IV			
MAS	224	Massage Therapy III	4
MAS	225	Massage Therapy IV	2
BIO	122	Anatomy and Physiology II	4
ENG	124	College Composition †	3
MAS	124	Massage Therapy Anatomy and Physiology II	1
MAS	227	Massage Therapy Procedures	2
BIO	125	Medical Terminology	3
			19

Spring – Semester V			
MAS	226	Massage Therapy V	3
MAS	223	Massage Therapy Review	3
MKT	121	Principles of Marketing	3
PHL	122	Ethics	3
ACC	121	Principles of Accounting	4
MGT	121	Principles of Management	3
			19

Summer – Semester VI			
PSY	121	General Psychology	3
SOC	121	Sociology	3
			6

69 TOTAL CREDIT HOURS

† Based on SSCT placement scores.

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Medical Assisting Program

Employment of medical assistants is expected to grow much faster than the average for all occupations through the year 2005 as the health service industry expands, according to the *Occupational Outlook Handbook* published by the U.S. Department of Labor.

The medical assisting program offers a five-semester "day track" program. A "night track" program is offered as an alternative program for students who work during the day. Night track applicants should complete the specified general studies courses prior to program admission and are strongly encouraged to contact the program director for scheduling advice.

WHAT IS MEDICAL ASSISTING?

Medical assistants are medical office experts. They do not administer skilled, bedside nursing care. These skills are performed by the registered and practical nurse in a hospital or skilled nursing facility.

The medical assistant is a multi-competent technician who works 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, and assist with x-rays. Medical assistants 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, transcribing from dictation, computer office systems, accounting, office procedures and communication/telephone skills.

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).

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 (CLPlb) and certified ophthalmic assistant (COA).

The medical assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Curriculum Review Board of the American Association of Medical Assistants' Endowment (AAMAE).

Medical assisting ophthalmology technical electives are accredited by The Committee on Accreditation for Ophthalmic Medical Personnel (CoA-OMP) a sponsor committee on Accreditation of the CAAHEP system.

Important note:
Beginning 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.*

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Medical Assisting Program

Day Track

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
BIO	101	Introduction to Anatomy and Physiology	3
BIO	125	Medical Terminology	3
ENG	226	Master Student	3
MAT	121	Medical Assisting I	4
OAD	100	Computer Applications/Windows (8 wks)/Test*	1
OAD	101	Key Data Input (8 wks)/Test*	1
			13-15
Semester II			
MAT	122	Medical Assisting II	4
MAT	124	Medical Transcription for Medical Assistants	3
MTH	101	Introduction to Algebra /Test*	4
CAP	120	Business Computer Applications*	4
ENG	124	College Composition †	3
			14-18
Semester III			
PSY	121	General Psychology	3
PSY	1231	Human Growth and Development	3
SPH	121	Effective Speaking	3
			9
Semester IV			
MAT	221	Medical Laboratory Procedures	3
MAT	222	Insurance for Medical Assisting	4
MAT	223	Office Procedures	4
MAT	224	Pharmacology/Administration of Medications	4
		Social Sciences Elective or Technical Elective**	3
			15-18
Semester V			
MAT	123	Medical Assisting III/Seminar	3
MAT	225	Emergency Medical Procedures	2
MAT	226	Medical Office Management/Law	3
MAT	227	Medical Assisting Externship	2
			10

70 TOTAL CREDIT HOURS

* Based on work or educational experience (see administrative information proficiency exam schedule).

** A minimum of three credit hour of medical assisting technical electives of social science electives is required for graduation and may be taken during semesters four or five. Each of the following courses is a three-credit hour elective: Ophthalmology I (MAT 228), Opthalmalolgy II (MAT2 229), Advanced Phlebotomy (MAT 230).

† Based on SSCT placement score.

Important note:
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Medical Assisting Program

Night Track

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
BIO	101	Introduction to Anatomy and Physiology	3
BIO	125	Medical Terminology	3
ENG	226	Master Student	3
MAT	121	Medical Assisting I	4
OAD	100	Computer Applications/Windows (8 wks)/Test*	1
OAD	101	Key Data Input (8 wks)/Test*	1
			13-15
Semester II			
MAT	122	Medical Assisting II	4
MAT	124	Medical Transcription for Medical Assistants	3
MTH	101	Introduction to Algebra /Test*	4
CAP	120	Business Computer Applications*	4
			11-15
Semester III			
ENG	124	College Composition †	3
PSY	1231	Human Growth and Development	3
SPH	121	Effective Speaking	3
			9
Semester IV			
MAT	221	Medical Laboratory Procedures	3
MAT	222	Insurance for Medical Assisting	4
MAT	223	Office Procedures	4
PSY	121	General Psychology	3
		Social Sciences Elective or Technical Elective**	3
			14-17
Semester V			
MAT	123	Medical Assisting III/Seminar	3
MAT	225	Emergency Medical Procedures	2
MAT	226	Medical Office Management/Law	3
MAT	224	Pharmacology/Administration of Medications	4
MAT	227	Medical Assisting Externship	2
			11

70 TOTAL CREDIT HOURS

* Based on work or educational experience (see administrative information proficiency exam schedule).

** A minimum of three credit hour of medical assisting technical electives of social science electives is required for graduation and may be taken during semesters four or five. Each of the following courses is a three-credit hour elective: Opthalmalolgy I (MAT 228), Opthalmalolgy II (MAT2 229), Advanced Phlebotomy (MAT 230).

† Based on SSCT placement score.

Important note:
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Medical Coding Specialist Certificate Program

One-Year Certificate Program - Night 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 coding specialist 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.

Opportunities for employment include all types of health care environments such as hospitals, outpatient facilities, physicians facilities, physician offices, medical/billing companies, insurance companies, etc.

Students will be instructed in ICD9-CM, CPT-4, DRGs, APCs and other third party reimbursement methodologies. A thorough understanding of anatomy and physiology and disease processes are required in order to understand the disease and procedures to be coded. The medical coding specialist must also have a thorough understanding of the content of the medial record and legal and ethical issues.

Students who complete the medical coding specialist certificate program are eligible to sit for coding certification examinations. See the American Health Information Management Association Web site ***www.ahima.org*** for additional information.

The medical coding specialist certificate program is a night track, 37-credit course of study that will prepare students for entry-level employment as medical coder specialists. A new group of students begins each fall semester. The maximum number of students accepted is 20. Prospective students in the medical coding specialist certificate program must meet criteria as outlined in program preapplication requirements. Fulfilling the criteria does not guarantee admission to the program.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
HIT	121	Introduction to Health Information Technology	4
BIO	125	Medical Terminology	3
HIT	123	Medicolegal Aspects	2
BIO	123	Principles of Human Structure and Function	5
			14
Semester II			
BIO	124	Pathophysyiology	3
CAP	120	Business Computer Applications	4
BIO	223	Pharmacology	3
HIT	124	Introduction to Coding	4
			14
Semester III			
HIT	221	Advanced Coding	3
HIT	228	Coding for Reimbursement	4
HIT	231	Coding Professional Practice Experience/Seminar*	2
			9

37 TOTAL CREDIT HOURS

* Daytime only.
Course prerequisites stated in the catalog must be met.

Note: All credits obtained in the medical coding specialist certificate program can be applied to an associate of applied science degree in health information technology. This requires the completion of 34 additional credit hours, which can be completed in two semesters.

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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, tissues and 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 Pathologists and the American Society (ASCLS) of Clinical Laboratory Scientists. NAACLS can be reached at 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415 • 773-714-8880 • *www.naacls.org*.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
MTL	121	Fundamentals of Laboratory Techniques	3
MTL	122	Urinalysis	2
CHM	121	General Chemistry	4
BIO	123	Principles of Human Structure and Function++	5
MLT	123	Hematology I	3
			17
Semester II			
MTH	123	Intermediate Algebra*	3
MLT	124	Hematology II	4
MLT	125	Immunohematology	5
CHM	122	Organic and Biological Chemistry	4
ENG	124	College Composition †	3
			19
Summer			
BIO	221	Principles of Microbiology	4
OAD	100	Computer Concepts+++	1
OAD	101	Keyboarding+++	1
			6
Semester III			
MTL	221	Clinical Immunotology/Serology	3
MTL	222	Clinical Chemistry	5
MTL	223	Clinical Microbiology	7
		Social Sciences Elective**	3
			18
Semester IV			
MTL	224	Directed Practice/Seminar	10
			10

70 TOTAL CREDIT HOURS

* May substitute College Algebra and Trigonometry (MTH 121).
** May select from sociology and psychology offerings.
† Based on SSCT placement score.
++ Anatomy and PhysiologyI and II (BIO 121, BIO 122) may be substituted.
+++ Business Computer Applications (CAP 120) may be substituted.
Note: *It is recommended that students take Algebra before taking Chemistry.*

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Medical Transcription Certificate Program

One-Year Certificate Program

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 healthcare professionals. After reviewing and editing for grammar and clarity, the medical transcriptionist transcribes the dictated reports and returns them in either printed or electronic form to the dictator for review and signature or correction.

A medical transcriptionist's basic responsibility is to transcribe medical dictation into a complete and accurate report. Depending on the employment setting, the transcriptionist may also be responsible for carrying out other office duties.

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.

Medical transcriptionists may be found in a variety of settings including the medical records department in a hospital, radiology/imaging departments, physician offices, outpatient facilities, outpatient surgery centers, government facilities, long term, mental health and social service facilities, medical transcription services and home offices. Depending on the employment setting, the transcriptionist may also be responsible for carrying out other office duties. After gaining work experience, medical transcriptionists may work independently out of their homes or work at home as an employee of a hospital or transcription service.

According to the *Occupational Outlook Handbook*, demand for medical transcriptionists is expected to increase due to rapid growth in the healthcare industry spurred by a growing and aging population. Advancements in voice recognition technology are not projected to reduce the need for medical transcriptionists because these workers will continue to be needed to review and edit drafts of the medical report for accuracy.

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 20 students each fall semester.

The program is a three-semester course of study combining classroom learning and practical experience leading to entry-level employment. At the end of the program, students who have successfully passed all the courses receive a certificate of completion. In addition, the student is earning college credits from an accredited institution, which may be applied to other courses of study in the future.

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.

The Medical Transcription Certificate program has been approved by the Ohio Board of Regents.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
BIO	125	Medical Terminology	3
BIO	123	Principles of Human Structure and Function	5
OAD	121	Keyboarding/Formatting	3
MTC	121	Medical Transcription/Terminology I	5
			16
Semester II			
MTC	122	Medical Transcription /Terminology II	5
OAD	129	Keyboarding/Skillbuilding (8 weeks)	1
ENG	124	College Composition †	3
BIO	124	Pathophysiology	3
			12
Summer			
BIO	222	Pharmacology	3
MTC	123	Advanced Medical Transcription	3
			6

34 TOTAL CREDIT HOURS

Course prerequisites stated in the catalog must be met.
† Based on SSCT placement score.

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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, or have a college GPA of 3.0 or better in 12 or more hours of coursework, or have a GED certificate.
- Have completed one year of high school algebra, chemistry and biology with a grade of "C" or better within the past five years, or show equivalency.
- Complete Stark State's pre-admission test and take any courses recommended as a result of that test.
- Score 50% or higher on the National League for Nursing pre-admission examination for registered nurses.

Effective for all students admitted to the nursing program after June 1, 2003:

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).

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

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 on page 119.

According to Section 4723.28 of the *Ohio Revised Code*, nursing students are responsible for informing the department head/director of nursing, early in the program, of any misdemeanor related to alcohol or drugs, 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: 61 Broadway, 33rd Floor, New York, NY 10006 • 1-800-669-1656.

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

- Malone College, Department of Nursing, Bachelor of Science in Nursing (BSN) degree-completion track for RNs (Canton, Ohio)
- Wayne College Joint Vocational High School nurse program and the Wayne Adult School of Practical Nursing (Smithville, Ohio)
- Practical Nurse Program of Canton City Schools (Canton, Ohio)
- Walsh University, B.S.N. Degree for the Registered Nurse (BSN-RN) Program (Canton, Ohio)

Transfer guidelines are available from the Admissions Department .

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Associate Degree in Nursing (ADN) Program

SUGGESTED COURSE SEQUENCE

Semester I			Credit Hours
NUR	121	Fundamental Concepts of Nursing	6
BIO	121	Anatomy and Physiology I	4
PSY	121	General Psychology	3
CHM	121	General Chemistry	4
			17
Semester II			
NUR	221	Nursing Care of Persons with Alterations in Health I	6
BIO	122	Anatomy and Physiology II	4
CHM	122	Organic and Biological Chemistry	4
ENG	124	College Composition †	3
			17
Summer			
NUR	122	Nursing Care of Child-bearing Family	4
NUR	123	Nursing Care of Children	4
PSY	123	Human Growth and Development	3
			11
Semester III			
NUR	222	Nursing Care of Persons with Alterations in Health II	8
BIO	221	Principles of Microbiology	4
SOC	121	Sociology	3
			15
Semester IV			
NUR	224	Nursing Seminar	1
NUR	223	Nursing Care of Persons with Alterations in Health III	8
ENG	224	Composition and Literature	3
			12

72 TOTAL CREDIT HOURS

LPN to RN Sequence

SUGGESTED COURSE SEQUENCE

Summer			Credit Hours
NUR	201	Transition for the LPN	5
PSY	123	Human Growth and Development	3
			8
Fall			
NUR	222	Nursing Care of Persons with Alterations in Health II	8
BIO	221	Principles of Microbiology	4
SOC	121	Sociology	3
			15
Spring			
NUR	224	Nursing Seminar	1
NUR	223	Nursing Care of Persons with Alterations in Health III	8
ENG	224	Composition and Literature	3
			12

35 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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Occupational Therapy Assistant (OTA) Technology

The profession of occupational therapy is concerned with providing 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 the day-to-day living activities of self-care, work, leisure and play.

Assistants help therapists in evaluating patients to determine patient and family needs. Once the therapist sets the treatment goals students may be responsible for implementing therapy by using selected activities. Treatment may involve group activities such as role playing, games or work and discussion groups, or individual programs to help strengthen impaired muscles, to improve coordination or to compensate for perceptual problems. Assistants may also instruct and train 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.

Coursework focuses on human development and the tasks and skills used in everyday life. Prospective students in the occupational therapy assistant technology program must have one year of high school biology or one semester of college biology and one year of high school 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.*

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Occupational Therapy Assistant (OTA) Technology

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
BIO	125	Medical Terminology	3
PSY	121	General Psychology	3
ENG	124	College Composition †	3
OTA	121	Foundations of Occupational Therapy	3
OTA	122	Therapeutic Media	3
			15
Semester II			
PSY	221	Abnormal Psychology	3
ENG	122	Communication Theory	3
BIO	123	Human Structure and Function	5
OTA	123	Psychosocial Aspects in Occupational Therapy	4
OTA	124	Psychosocial Clinical Experience	3
			18
Semester III			
OTA	223	Life Span Development	5
OTA	221	Developmental Aspects in Occupational Therapy	4
OTA	222	Developmental Clinical Experience	3
PTA	226	Functional Anatomy	4
			16
Semester IV			
BIO	124	Pathiophysiology	3
SOC	121	Sociology	3
OTA	224	OT Physical Dysfunction	4
OTA	225	Physical Dysfunction Clinical Experience	3
			13
Semester V			
OTA	226	OTA Seminar	2
OTA	227	Clinical Application I	3
OTA	228	Clinical Application II	3
			8

70 SEMESTER CREDITS

† Based on SSCT placement score.

All OTA students must complete Level II fieldwork within six months following completion of academic courses.

According to various sections of the *Ohio Revised Code* especially sections 4755.01 to 4755.12 and according to the rules and regulations of the occupational therapy (OT) section of the Ohio Occupational Therapy, Physical Therapy and Athletic Trainers Board (OT/PT/AT Board) and of the National Board for Certification of Occupational Therapy (NBCOT), persons convicted of any misdemeanor related to alcohol/drugs or a felony may be denied certification or licensure or may be refused placement by the Fieldwork Experience Sites or may have restrictions placed on their ability to practice. Such persons are advised to contact the director of OTAT, the OT section of the Ohio OT/PT/AT Board, and/or NBCOT.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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Physical Therapist Assistant (PTA) Technology

Physical therapist assistants 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.

Physical therapist assistants help therapists in testing patients to determine the extent of their capabilities. After the therapist sets goals and plans the treatment program for the patient, assistants may be assigned to perform selected treatments, using a variety of specialized equipment, various forms of heat, cold, light and electricity. Assistants may help patients perform therapeutic exercises to strengthen, stretch or relax muscles, promote circulation or enhance coordination.

Physical therapist assistants help patients learn correct walking procedures and perform everyday activities such as dressing, getting in and out of bed and chairs, using artificial limbs, braces and splints and standing properly. They also teach patients and family members about exercises or other activities to continue at home.

Assistants are responsible for reporting patient reactions to treatment and making suggestions for modifying treatment to their supervising therapist. They also help with documentation of patient progress, perform certain clerical duties and help give on-the-job training to non-licensed personnel working in the physical therapy department.

Upon successful completion of all aspects of the physical therapist assistant technology, graduates are eligible to take the state licensing examination. 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.

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.

Physical Therapist Assistant (PTA) Technology

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
PHY	101	Principles of Physics	4
PTA	121	Fundamentals of Physical Therapy	4
PTA	122	Musculoskeletal Anatomy	4
BIO	123	Principles of Human Structure and Function **	5
			17
Semester II			
BIO	125	Medical Terminology	3
ENG	122	Communication Theory *	3
PTA	123	Kinesiology	4
PTA	221	PTA Procedures I	5
BIO	124	Pathophysiology	3
			18
Semester III (Summer)			
PTA	124	Measurement Procedures for the PTA	2
PSY	121	General Psychology	3
ENG	124	College Composition †	3
PTA	125	Professional Clinical Practice for the PTA	1
			9
Semester IV			
PSY	222	Psychological Aspects of Therapy	3
PTA	222	PTA Procedures II	5
OTA	223	Life Span Development	5
PTA	229	Directed Practice I	3
PTA	228	Seminar I	2
			18
Semester V			
PTA	223	PTA Procedures III	2
PTA	231	Directed Practice II	2
PTA	230	Seminar II	1
PTA	227	Directed Practice III	3
			8

70 SEMESTER CREDITS

† Based on SSCT placement score.
* Effective Speaking (SPH 121) may be substituted for this class.
** Anatomy and Physiology I (BIO 121) and Anatomy and Physiology II (BIO 121) may be substituted for this class.

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.

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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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 certified respiratory therapist (CRT), registered respiratory therapist (RRT) and licensed respiratory care practitioner. Licensure is required to practice as a respiratory care practitioner.

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

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Respiratory Care Technology

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
RCT	121	Introduction to Respiratory Care Procedures	3
RCT	122	Medical Gas Administration	3
MTH	123	Intermediate Algebra	3
BIO	123	Human Structure and Function	5
ENG	124	College Composition †	3
			17
Semester II			
CHM	121	General Chemistry	4
RCT	123	Airway Management Procedure	3
RCT	124	Pharmacology for Respiratory Therapy	2
RCT	125	Clinical Practice Basic Procedures/Seminar	3
		Social Sciences Elective*	3
			15
Semester III (Summer)			
RCT	126	Introduction to Critical Care	3
RCT	127	Cardiopulmonary Anatomy and Physiology	3
RCT	128	Clinical Practice Airway Management/Seminar	2
			8
Semester IV			
ENG	122	Communication Theory	3
BIO	221	Principles of Microbiology	4
RCT	221	Advanced Respiratory Care Procedures	3
RCT	222	Respiratory Diseases	3
RCT	224	Clinical Practice Critical Care/Seminar	3
			16
Semester V			
CAP	120	Business Computer Applications	4
RCT	223	Patient Assessment and Monitoring	3
RCT	225	Clinical Practice Specialty Rotations/Seminar	5
		Psychology Elective**	3
			15

71 SEMESTER CREDITS

* May select from Sociology offerings only.
** May select from Psychology offerings only.
† Based on SSCT placement score.

COLLEGE TECH PREP
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Information Technologies

Students majoring in the information technologies may pursue associate of applied science degrees in computer science, computer networking and telecommunications, and interactive media technology as well as associate of applied business degrees in the areas of computer technology, e-commerce and database administrator technology.

The associate of applied science degree has a greater focus on math and science where the associate of applied business degree is less math intensive and incorporates general business and accounting courses into the curriculum. 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.

Information technology graduates work in positions such as webmasters, network engineers, computer programmers, technical support advisors, database administrators, help desk staff, software support specialists and software developers.

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 and students are urged to discuss transferability of credits with the college or university to which they plan to transfer.

Bachelor of Science in Computer Science and Engineering Technology from the University of Toledo

The University of Toledo and Stark State College of Technology have formed a partnership to offer a bachelor of science degree completion program in computer science and engineering technology. All University of Toledo courses will be offered on the campus of Stark State College.

Participation in the program is for students who have completed either Stark State's computer science and engineering technology degree or the computer networking and telecommunications engineering technology degree.

Bachelor of Science from Franklin University

Franklin University and Stark State College of Technology have formed a partnership to offer a bachelor of science degree completion program in computer science, management information systems and digital communication. All Franklin University courses are offered online and can be taken on the campus of Stark State College.

Students interested in the four-year University of Toledo or Franklin University program offered on the Stark State College campus should talk to their Stark State advisors for more details and application information.

In addition to these programs, the information technology division offers a number of career enhancement certificates designed to enhance specific sets of skills.

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

THE UNIVERSITY OF TOLEDO

FRANKLIN UNIVERSITY

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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 Microsoft, Novell Netware 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.

When hundreds of new software applications hit the market, graduates with this program option will already have the ability to take full competitive advantage above the rest. This course of study provides graduates with the technical information to get the task accomplished and be successful in the field of network administration.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
EET	131	PC Upgrading and Maintenance	3
EET	141	Introduction to Computer Networking	3
MTH	121	College Algebra and Trigonometry I	4
ENG	124	College Composition †	3
			16
Semester II			
ECA	131	Microsoft Windows 2000 Professional	3
EET	257	UNIX/LINUX Operating Environment	3
CAP	136	Netware Administration	3
MTH	122	College Algebra and Trigonometry II	3
ECA	127	Programming Logic and Problem Solving	3
SPH	122	Inter-group Communications	3
			18
Semester III			
ECA	244	MS Windows 2000 Server and Network Infrastructure	3
EET	242	MS SQL Server Administration	3
EET	251	UNIX/LINUX Network Administration	3
ACC	130	Business Law and Ethics	3
PHY	121	Physics I	4
CAP	138	iSeries Operating Environment*	3
CAP	251	Advanced Netware Administration*	3
EET	250	UNIX/LINUX System Administration*	3
			19
Semester IV			
ECA	245	Designing a Microsoft Windows 2000 Network and Windows 2000 Security	3
EET	259	Web Server Administration	3
BUS	122	Basic Economics	3
ECA	246	Implementing, Administering and Designing Microsoft Windows 2000 Directory Services	3
ENG	221	Technical Report Writing	3
EET	258	Data Encryption and Firewall Technology	3
			18

71 TOTAL CREDIT HOURS

* Select from 3 credit hours of electives.
† Based on SSCT placement score.

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Computer Network Administration and Security Technology

Security and Forensics Option

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
EET	127	Programming Logic and Problem Solving	3
EET	131	PC Upgrading and Maintenance	3
EET	141	Introduction to Computer Networking	3
ENG	124	College Composition †	3
			15
Semester II			
ECA	131	Microsoft Windows 2000 Professional	3
ECA	130	Software Vulnerabilities	3
ECA	228	Internet/Intranet Design and Development	3
EET	260	Computer Forensics	3
MTH	121	College Algebra and Trigonometry I	4
SPH	122	Inter-group Communications	3
			19
Semester III			
ECA	244	MS Win2000 Server and Network Infrastructure	3
BUS	122	Basic Economics	3
PHY	121	Physics I	4
ECA	222	Introduction to C++ Programming	3
EET	257	UNIX/LINUX Operating Environment	3
ECA	225	Applied Interactive Software Development	3
			19
Semester IV			
ECA	129	Cryptography	
EET	251	UNIX/LINUX Network Administration	3
EET	258	Data Encryption and Firewall Technology	3
EET	259	Web Server Administration	3
ENG	221	Technical Report Writing	3
ACC	130	Business Law/Ethics	3
			18

71 TOTAL CREDIT HOURS

* Select from 3 credit hours of electives.
† Based on SSCT placement score.

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Computer Networking and Telecommunications Engineering Technology

This program provides students with information on computer networking, electronics, telecommunications and board-level functioning of computers. Students gain an understanding of software systems and software interaction. The computer, computer network and telecommunications are addressed as an interactive system.

The telecommunications information covers voice, video and data communications. It addresses the generation of the electrical signals; their transmission by various means; signal receiving and decoding; and information output.

The outlook for the future is extremely positive! Studies by the Ohio Bureau of Employment Services show that the number one career field is in the computer networking and telecommunications area. All of these four occupations are projected to grow more than 50% in the next 10 years.

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			
ECA	122	Computer Applications for Technical Professionals	3
EET	120	DC Circuit Analysis	4
ENG	124	College Composition †	3
MTH	121	College Algebra and Trigonometry I	4
PHY	121	Physics I	4
			18
Semester II			
EET	131	PC Upgrading and Maintenance	3
ECA	141	Introduction to Computer Networking	3
EET	123	Electronic Devices and Circuits	3
MTH	122	College Algebra and Trigonometry II	3
SPH	122	Inter-group Communications	3
EET	122	AC Circuit Analysis	4
			19
Semester III			
ECA	127	Programming Logic and Problem Solving	3
ECA	131	MS Win2000 Professional	3
EET	221	Pulse, Logic and Switching Circuits (8W 1)	3
EET	222	Digital Integrated Circuits (8W 2)	3
EET	129	Optics	2
EET	248	Workstation Interfacing (8W 2)	2
ACC	130	Business Law and Ethics	3
			19
Semester IV			
ECA	244	MS Windows 2000 Server and Network Infrastructure	3
EET	257	UNIX Operating Environment*	3
ECA	246	Implementing, Administering and Designing MS Win2000 Directory Services*	3
ECA	245	Designing an MS Win2000 Network and Win2000 Security*	2
EET	245	Technical Project – Electronic Telecommunications*	3
MTH	221	Concepts of Calculus	3
ENG	221	Technical Report Writing	3
EET	244	Electronic Telecommunications	3
BUS	122	Basic Economics	3
			18

74 TOTAL CREDIT HOURS

* Must select 2-3 credit hours of electives.
† Based on SSCT placement score.

(8W 1) = 8-week course 1st 8 weeks
(8W 2) = 8-week course 2nd 8 weeks

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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Computer Science and Engineering Technology

The computer science and engineering technology program has been established to meet the burgeoning demand in Northeastern Ohio for software engineers, programmers/analysts and technical computer software consultants. The computer science and engineering technology program is accompanied by two options, the video gaming option and the University of Toledo transfer option, allowing a total of three curriculum paths.

There is currently a tremendous demand for individuals who know how to use Object Oriented Programming (OOP) languages to develop software in the following OOP languages: Java, Visual C++ and Visual Basic. Many of the courses in this curriculum prepare individuals for certification exams found in Microsoft's MCSD professional certification sequence. This option allows students to get a degree and prepare for MCSD at the same time. Stark State is an authorized academic training program (AATP) for Microsoft. This means that students can take courses that will prepare them for Microsoft certification tests which can be taken at Stark State College.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
ECA	127	Programming Logic and Problem Solving	3
ENG	124	College Composition †	3
MTH	121	Intermediate Algebra and Trigonometry I	4
PHY	121	Physics I	4
			17
Semester II			
ACC	130	Business Law and Ethics	3
BUS	122	Basic Economics	3
ECA	223	Java Programming in Computer Science	3
ECA	228	Internet/Intranet Design and Development	3
EET	141	Introduction to Computer Networking	3
MTH	122	College Algebra and Trigonometry II	3
			18
Semester III			
ECA	***128***	***Developing and Implementing Windows-based Applications with MS Visual Basic.Net***	***3***
ECA	222	Introduction to C++ Programming	3
ECA	230	Database Design/Interface for Software Developers	3
ENG	221	Technical Report Writing	3
MTH	221	Concepts of Calculus	3
SPH	122	Inter-group Communications	3
			18
Semester IV			
ECA	***224***	***Software Engineering Design/Development with COM****	***3***
ECA	***226***	***Introduction to C++ The Foundation Classes****	***3***
ECA	227	Assembly Language	3
ECA	***233***	***Analyzing Software Requirements and Developing Solutions***	***3***
ECA	***238***	***Developing Database Applications using Microsoft ADO.NET***	***3***
ECA	239	Advanced Java Programming for Software Engineering Applications	3
ECA	131	Microsoft Windows 2000 Professional*	3
EET	257	UNIX/LINUX Operating Environment*	3
CAP	138	iSeries Operating Environment*	3
			18

71 TOTAL CREDIT HOURS

* Select 3 credit hours of technical electives.
** Select 3 credit hours of programming electives.
† Based on SSCT placement score.

Bold italicized courses indicate courses that contain content for MSCD certification.

COLLEGE TECH PREP
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Computer Science and Engineering Technology

University of Toledo Transfer Option

Upon graduation from Stark State College with a two-year associate's degree in computer science and engineering technology, students enrolled in this option have the opportunity to continue their studies for two more years to earn a bachelor's degree in computer science and engineering technology from the University of Toledo. The bachelor's degree is awarded by the University of Toledo through an educational partnership with Stark State College. Many of the courses taken during the junior and senior years are online courses and are completed over the Internet; the rest are taken from Stark State's course offerings. The entire degree is earned either online or on Stark State's campus!

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
ECA	127	Programming Logic and Problem Solving	3
ENG	124	College Composition †	3
MTH	121	Intermediate Algebra and Trigonometry I	4
PHY	121	Physics I	4
			17
Semester II			
BUS	122	Basic Economics	3
ECA	223	Java Programming in Computer Science	3
ECA	228	Internet/Intranet Design and Development	3
EET	120	DC Circuit Analysis	4
EET	141	Introduction to Computer Networking	3
MTH	122	College Algebra and Trigonometry II	3
			19
Semester III			
ECA	128	Developing and Implementing Windows-based Applications with MS Visual Basic.Net	3
ECA	222	Introduction to C++ Programming	3
EET	122	AC Circuit Analysis	4
ENG	221	Technical Report Writing	3
MTH	221	Concepts of Calculus	3
SPH	122	Inter-group Communications	3
			19
Semester IV			
ACC	130	Business Law and Ethics	3
ECA	227	Assembly Language	3
EET	230	Database Design/Interface for Software Developers	3
ECA	233	Analyzing Software Requirements and Developing Solutions	3
EET	123	Electronic Devices and Circuits	3
EET	129	Optics	2
			17

72 TOTAL CREDIT HOURS

† Based on SSCT placement score.

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Computer Science and Engineering Technology

Video Game Design Option

Want to become an expert software developer and have some fun in the process?

Stark State's new video game design option is the latest addition to the computer science and engineering technology major. Don't underestimate the depth of presentation! This option is one of the most demanding in terms of math and computer science requirements. A rigorous regimen and advance mathematics, coupled with object-oriented programming, are carefully meted out to assure the highest level of proficiency in gaming and software engineering.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
ECA	127	Programming Logic and Problem Solving	3
ENG	124	College Composition †	3
MTH	121	Intermediate Algebra and Trigonometry I	4
PHY	121	Physics I	4
			17
Semester II			
BUS	122	Basic Economics	3
ECA	222	Introduction to C++ Programming	3
ECA	223	Java Programming in Computer Science	3
IMT	126	Flash Animation and Design	3
IMT	127	Game Design	3
MTH	122	College Algebra and Trigonometry II	3
			18
Semester III			
ENG	221	Technical Report Writing	3
IMT	122	Graphic Arts Design	3
IMT	224	C++ for Gaming Development	3
IMT	235	Flash Actionscripting	3
MTH	221	Concepts of Calculus	3
SPH	122	Inter-group Communications	3
			18
Semester IV			
ACC	130	Business Law and Ethics	3
ECA	227	Assembly Language	3
ECA	239	Advanced Java Programming for Software Engineering	3
ECA	240	Game Programming for Devices	3
ECA	241	Advanced Game Programming	3
IMT	125	Graphic Arts Programming in 3D Studio Max I	3
			18

71 TOTAL CREDIT HOURS

† Based on SSCT placement score.

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Computer Technology

Nearly every facet of our lives today is affected by computers. Positions for personnel with computer skills are 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.

This degree program focuses on the use of programming languages, databases and networking to develop business computer applications. Students learn a number of the most-used languages, as well as related system concepts. The student has the flexibility of learning advanced skills in Visual Basic, Cobol, Oracle, SQL Server, as well as economics, accounting and other areas.

The computer technology program is 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
- Computer Operator
- Consultant
- Database Administrator
- Educational Specialist
- Network Administrator
- Programmer
- System Administrator
- Technical Support
- Training Specialist

The program's newest option is instructional design option which prepares students for the exciting and lucrative field of computer-based training. It broadens each student's ability to teach with the computer. The degree focuses on computer training, industrial training and medical training.

The computer technology program has many strengths which help produce qualified, technically trained computer professionals.

The department'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 using computer hardware ranging from PCs to mainframe.

Computer technology instructors have practical experience in the field. Their education and industry experience allow them to offer real-life perspectives on the complex world of computer technology.

Stark State's program has been successful in providing students with the practical background and skills needed for employment in the computer field. The computer technology department is helping to produce computer professionals with the skills employers want and need.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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Computer Technology

The computer technology program and options are designed to provide students with a comprehensive introduction to the topics of principle importance in business information systems. The program equips them with knowledge useful in supporting an area related to or involved in the management and delivery of information. Graduates of this program and/or options will be prepared for employment in positions involving the management of, design of, or programming of computer-based information systems.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
ECA	127	Programming Logic and Problem Solving	3
ENG	124	College Composition †	3
MTH	121	College Algebra and TrigonometryI	4
SPH	121	Effective Speaking	3
			16
Semester II			
BUS	121	Business Administration	4
CAP	138	iSeries Operating Environment	3
ECA	228	Internet/Intranet Design and Development	3
ECA	133	Computer User Support	3
EET	141	Introduction to Computer Networking	3
MTH	222	Statistics	3
			19
Semester III			
ACC	121	Principles of Accounting I	4
CAP	139	Introduction to Oracle SQL	3
CAP	223	Microsoft Access Database	3
ECA	229	Microsoft Server Side Scripting	3
EET	131	PC Upgrading and Maintenance	3
IMT	124	Internet Design Tools	3
			19
Semester IV			
ACC	130	Business Law and Ethics	3
ECA	233	Analyzing Software Requirements and Developing Solutions	3
ECA	131	Microsoft Windows 2000 Professional	3
ENG	221	Technical Report Writing	3
IMT	126	Flash Animation and Design	3
		Technical Elective*	3
			18

72 TOTAL CREDIT HOURS

* Select from Visual Basic for Applications (CAP 224) or Developing Internet Applications on the iSeries (CAP254).

† Based on SSCT placement score.

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Computer Technology

Client-Server Support Specialist (Help Desk Analyst) Option

As a client-server support specialist, students will design, build and install computer networks; maintain, upgrade and troubleshoot computer systems; use the Internet and design Web pages; and provide technical and help desk support. Client-server support specialists assess the computer needs and problems of businesses and help business owners and managers choose the correct technological solutions. Practical, hands-on training will feature technology that is currently being used in the workplace.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
EET	131	PC Upgrading and maintenance	3
EET	141	Introduction to Computer Networking	3
MTH	121	College Algebra and TrigonometryI	4
ENG	124	College Composition †	3
			16
Semester II			
CAP	125	Advanced Microsoft Applications	3
CAP	223	Microsoft Access Database	3
ECA	127	Programming Logic and Problem Solving	3
ECA	133	Computer User Support	3
ECA	132	Help Desk Concepts	3
ECA	131	Microsoft Windows 2000 Professional	3
			18
Semester III			
ACC	130	Business Law and Ethics	3
BUS	121	Business Administration	4
CAP	138	iSeries Operating Environment	3
CAP	257	Microsoft Applications Technical Expert	3
ECA	228	Internet/Intranet Design and Development*	3
ECA	244	Microsoft Windows 2000 Server and Network Infrastructure	3
OAD	238	Microsoft FrontPage*	3
			19
Semester IV			
ACC	121	Principles of Accounting I	4
ECA	248	Citrix Metaframe	3
ECA	246	Administering, Implementing and Designing Microsoft Windows 2000 Directory Services	3
ENG	221	Technical Report Writing	3
SPH	121	Effective Speaking	3
			16

69 TOTAL CREDIT HOURS

* Select 3 hours of electives.
† Based on SSCT placement score.

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Computer Technology

Instructional Design Option

The instructional design and development option is directed toward those individuals who wish to apply technology and related software in a classroom or instructional setting. The outlook for those who understand how to use technology in education is excellent. Schools and other organizations are expanding their use of technology and are employing more professionally-trained workers. Opportunities are also available in the private sector. Typical jobs for graduates in instructional design include: technology coordinator, distance learning specialist, computer-based training developer, online training specialist, staff development specialist and corporate training specialist.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
ECA	127	Programming Logic and Problem Solving	3
ENG	124	College Composition †	3
IMT	122	Graphic Arts Design	3
MTH	121	College Algebra and TrigonometryI	4
			16
Semester II			
BUS	121	Business Administration	4
ECA	228	Internet/Intranet Design and Development	3
IMT	126	Flash Animation and Design	3
IMT	222	Digital Audio/Video Production and Editing I	3
MTH	222	Statistics	3
SPH	121	Effective Speaking	3
			19
Semester III			
ACC	121	Principles of Accounting I	4
ECA	229	Microsoft server Side Scripting	3
ECA	236	Open Source Server-Side Scripting	3
ECA	243	Instructional Illustrations	3
IMT	124	Internet Design Tools	3
IMT	223	Digital Audio/Video Production and Editing II	3
			19
Semester IV			
ACC	130	Business Law and Ethics	3
ECA	223	Java Programming in Computer Science	3
ECA	233	Analyzing Software Requirements and Developing Solutions	3
ENG	221	Technical Report Writing	3
IMT	123	CBT Development with Director	3
IMT	236	Designing for Presentations	3
			18

72 TOTAL CREDIT HOURS

† Based on SSCT placement score.

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Computer Technology

Software Developer Option

This option prepares students for a professional career in software development. This aggressive program is a hands-on approach to teach students to design, create and implement the unique software tools that are in demand today. As a software developer, the student will evaluate the project requirements, participate in design meetings, help determine the best solution to a problem or feature and develop detailed design specifications. The program will help prepare students for the required exams to achieve status as a Microsoft Certified Solutions Developer (MCSD).

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
ECA	127	Programming Logic and Problem Solving	3
ECA	228	Internet/Intranet Design and Development	3
ENG	124	College Composition †	3
MTH	121	College Algebra and TrigonometryI	4
			16
Semester II			
BUS	121	Business Administration	4
CAP	138	iSeries Operating Environment	3
CAP	223	Microsoft Access Database	3
MTH	222	Statistics	3
ECA	223	Java Programming in Computer Science	3
			19
Semester III			
ACC	121	Principles of Accounting I	4
CAP	127	COBOL Programming	3
CAP	139	Introduction to Oracle: SQL	3
ECA	230	Database Design/Interface for Software Developers	3
ECA	229	Microsoft Server Side Scripting	3
ECA	238	Developing Database Applications ...using Microsoft ADO.NET	3
			19
Semester IV			
ACC	130	Business Law and Ethics	3
CAP	141	Oracle PL/SQL Programming	3
CAP	248	Application Development for Oracle Databases	3
ECA	233	Analyzing Software Requirement and Developing Solutions	3 3
ENG	221	Technical Report Writing	3
SPH	121	Effective Speaking	3
			18

72 TOTAL CREDIT HOURS

† Based on SSCT placement score.

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Database Administration Technology

Microsoft SQL Server

The Microsoft SQL Server specialization in the database administration technology prepares students for a technical career in the computer database administration and design field. The program is designed to provide learning experiences that prepare graduates with a firm background of solid, hands-on training, directly related to database administration, design and implementation. The program provides a strong foundation in database related programming, administration, structure and setup as well as substantial networking skills related to effective database administration. The students will obtain the skills necessary to provide high end, solution-based technical support for existing database implementations as well as for new database development.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
EET	131	Personal Computer Upgrading and Maintenance	3
EET	141	Introduction to Computer Networking	3
ENG	124	College Composition †	3
MTH	121	College Algebra and TrigonometryI	4
			16
Semester II			
BUS	121	Business Administration	4
CAP	233	Microsoft Access Database	3
ECA	228	Internet/Intranet Design and Development	3
ECA	131	Microsoft Windows 2000 Professional	3
MTH	222	Statistics	3
SPH	121	Effective Speaking	3
			19
Semester III			
ACC	121	Principles of Accounting I	4
CAP	138	iSeries Operating Environment	3
CAP	139	Introduction to Oracle SQL	3
ECA	229	Microsoft Server Side Scripting	3
ECA	244	Microsoft Windows 2000 Server and Network Infrastructure	3
EET	242	Microsoft SQL Server Administration	3
			19
Semester IV			
ACC	130	Business Law and Ethics	3
CAP	242	Relational Database	3
CAP	255	Programming a Microsoft SQL Server Database with Transact SQL	3
CAP	256	Designing and Implementing OLAP Solution using SQL Server	3
ENG	221	Technical Report Writing	3
		Technical Elective*	3
			18

72 TOTAL CREDIT HOURS

* Select from Visual Basic for Applications (CAP224), Open Source Server-Side Scripting (ECA326) or Analyzing Software Requirements and Developing Solutions (ECA 233).

† Based on SSCT placement score.

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Database Administration Technology

Oracle

Expanding on the broad selection of high-tech programs at Stark State College , the Oracle specialization in the database administration major stresses the process, analytic, design, planning, and programming issues associated with database technology — a key business asset at almost all companies. This program addresses the practical aspects of designing, developing, implementing, managing, maintaining, and distributing database systems. Database Administrators are typically responsible for system programming, troubleshooting, and system management as well as coordinating software with other IS departments and helping management understand database technology's value to the company's business goals.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
ECA	228	Internet/Intranet Design and Development	3
EET	141	Introduction to Computer Networking	3
ENG	124	College Composition †	3
MTH	121	College Algebra and Trigonometry I	4
			16
Semester II			
BUS	121	Business Administration	4
CAP	138	iSeries Operating Environment	3
CAP	139	Introduction to Oracle SQL	3
EET	131	Personal Computer Upgrading and Maintenance	3
MTH	222	Statistics	3
SPH	121	Effective Speaking	3
			19
Semester III			
ACC	121	Principles of Accounting I	4
CAP	141	Oracle PL/SQL Programming Language	3
CAP	142	Oracle Architecture and Administration	3
CAP	221	Relational Database	3
ECA	131	Microsoft Windows 2000 Professional	3
EET	257	UNIX/LINUX Operating Environment	3
			19
Semester IV			
ACC	130	Business Law and Ethics	3
CAP	248	Application Development for Oracle Databases	3
CAP	249	Oracle Performance and Tuning	3
CAP	250	Oracle Backup and Recovery	3
ENG	221	Technical Report Writing	3
		Technical Elective*	3
			18

72 TOTAL CREDIT HOURS

* Select from Visual Basic for Applications (CAP224), Open Source Server-Side Scripting (ECA326) or Analyzing Software Requirements and Developing Solutions (ECA 233).

† Based on SSCT placement score.

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E-Commerce Technology

E-commerce 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 e-commerce students will be applying them in the classroom.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
ECA	127	Programming Logic and Problem Solving	3
ENG	124	College Composition †	3
BUS	121	Business Administration	4
MTH	121	College Algebra and TrigonometryI	4
			17
Semester II			
ACC	130	Business Law and Ethics	3
ECA	223	Java Programming in Computer Science	3
ECA	228	Internet/Intranet Software Design	3
IMT	126	Flash Animation and Design	3
MKT	121	Principles of Marketing	3
MTH	222	Statistics	3
			18
Semester III			
ECA	225	Applied Interactive Software Development	3
ECA	229	Microsoft Server Side Scripting	3
ECA	230	Database Design/Interface for Software Developers	3
ECA	236	Open Source Server Side Scripting	3
IMT	124	Internet Design Tools	3
MKT	232	Internet Marketing	2
			17
Semester IV			
ECA	234	CFML Tools and Design	3
ECA	237	Advanced Web Services with C#	3
ECA	247	Web Server Scripting	3
IMT	123	CBT Development with Director	3
SPH	122	Inter-group Communications	3
		Technical Elective	3
			18

70 TOTAL CREDIT HOURS

* Select 3 hours of electives.
† Based on SSCT placement score.

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Interactive Media Technology

The interactive media technology program is an adventure into the creative side of computing that allows for a total of four curriculum paths in computer science and engineering technology.

An associate degree in interactive media technology will prepare students to develop feature rich, interactive presentations using some of today's hottest technologies including streaming media, .rm, SMIL, and MIDI. There is currently a tremendous demand for individuals who know how to use multi-media to develop interactive presentations.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
IMT	121	Interactive Media	3
MTH	121	College Algebra and Trigonometry I	4
IMT	122	Graphic Arts Design	3
ECA	127	Programming Logic and Problem Solving	3
ECA	228	Internet/Intranet Software Design and Development	3
			19
Semester II			
ECA	222	Introduction to C++ Programming	3
IMT	222	Digital Audio/Video Production and Editing I	3
ECA	229	Microsoft Server-Side Scripting	3
ENG	124	College Composition †	3
ACC	130	Business Law and Ethics	3
IMT	126	Flash Animation and Design	3
			18
Semester III			
PHY	121	Physics I	4
IMT	223	Digital Audio/Visual Production and Editing II	3
ECA	226	Visual C++ The Foundation Classes	3
BUS	122	Basic Economics	3
ECA	128	Developing and Implementing Windows-based Applications with MS Visual Basic.Net	3
			16
Semester IV			
SPH	122	Inter-group Communications	3
EET	141	Introduction to Computer Networking	3
ENG	221	Technical Report Writing	3
IMT	226	Internship	1
ECA	225	Applied Interactive Software Development	3
IMT	125	Product Development and Distribution	3
			16

69 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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Interactive Media Technology

Commercial Music Production and Broadcasting Option

Webcasting, streaming and music production is the focus of this option. Upon completion of this degree the student is able to work in a variety of environments including corporate audio design, trade show design and music composition-based fields.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
IMT	121	Interactive Media	3
MTH	121	College Algebra and Trigonometry I	4
IMT	122	Graphic Arts Design	3
BUS	122	Basic Economics	3
ECA	228	Internet/Intranet Software Design and Development	3
			19
Semester II			
ECA	127	Programming Logic and Problem Solving	3
ECA	225	Applied Interactive Software Development	3
ENG	124	College Composition †	3
IMT	126	Flash Animation and Design	3
IMT	222	Digital Audio/Video Production and Editing I	3
IMT	229	Theory and Composition	3
			18
Semester III			
ECA	222	Introduction to C++ Programming	3
IMT	223	Digital Audio/Visual Production and Editing II	3
EET	141	Introduction to Computer Networking	3
IMT	232	Instrumental Practicum	1
PHY	121	Physics I	4
SPH	122	Inter-group Communications	3
			17
Semester IV			
ACC	130	Business Law and Ethics	3
IMT	230	Webcasting	3
ENG	221	Technical Report Writing	3
IMT	225	Production Development and Distribution	3
IMT	226	Internship	1
IMT	231	Programming MIDI Using Software Languages	3
			16

70 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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Interactive Media Technology

Computer Graphics and 3D Animation Option

Stark State offers a graphic arts design option which prepares students to develop three-dimensional graphics for the Internet, print media and animation-based projects. The focus of this option is the mastery of the Discreet 3D Studio Max™ interface to generate and manipulate still and animated graphics.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
IMT	121	Interactive Media	3
MTH	121	College Algebra and Trigonometry I	4
IMT	122	Graphic Arts Design	3
BUS	122	Basic Economics	3
ECA	228	Internet/Intranet Software Design and Development	3
			19
Semester II			
ACC	130	Business Law and Ethics	3
ECA	127	Programming Logic and Problem Solving	3
ECA	225	Applied Interactive Software Development	3
ENG	124	College Composition †	3
IMT	125	Programming in 3D Studio Max I	3
IMT	222	Digital Audio/Video Production and Editing I	3
			18
Semester III			
ECA	222	Introduction to C++ Programming	3
IMT	126	Flash Animation and Design	3
IMT	223	Digital Audio/Visual Production and Editing II	3
IMT	227	Programming in 3D Studio Max II	3
PHY	121	Physics I	4
			16
Semester IV			
EET	141	Introduction to Computer Networking	3
ENG	221	Technical Report Writing	3
IMT	225	Production Development and Distribution	3
IMT	226	Internship	1
IMT	228	3D Design Practicum	3
SPH	122	Inter-group Communications	3
			16

69 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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Interactive Media Technology

Multimedia Design and Development Option

This option is for the student wishing to utilize a wide range of tools that aid then in creating multimedia-based applications such as marketing tools, corporate "info-disks" and other media presentations.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECA	122	Computer Applications for Technical Professionals	3
IMT	121	Interactive Media	3
MTH	121	College Algebra and Trigonometry I	4
IMT	122	Graphic Arts Design	3
BUS	121	Basic Administration	4
ECA	228	Internet/Intranet Software Design and Development	3
			20
Semester II			
ACC	130	Business Law and Ethics	3
ECA	127	Programming Logic and Problem Solving	3
ENG	124	College Composition †	3
IMT	126	Flash Animation and Design	3
IMT	222	Digital Audio/Video Production and Editing I	3
MKT	121	Principles of Marketing	3
			18
Semester III			
ECA	222	Introduction to C++ Programming	3
ECA	229	Microsoft Server Side Scripting	3
IMT	223	Digital Audio/Visual Production and Editing II	3
IMT	128	Hypermedia Tools	3
PHY	121	Physics I	4
			16
Semester IV			
ENG	221	Technical Report Writing	3
IMT	123	CBT Development with Director	3
IMT	225	Production Development and Distribution	3
IMT	226	Internship	1
IMT	236	Designing for Presentations	3
SPH	122	Inter-group Communications	3
			16

70 TOTAL CREDIT HOURS

† Based on SSCT placement score.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

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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Information Technologies

Career Enhancement Programs*

Stark State College recognizes that not all students will seek an associate's degree. Students might need to develop specific sets of skills to qualify for or improve performance in a given career setting. In response to this need, Stark State has developed "career enhancement" programs which document a student's proficiency in a variety of knowledge areas. The following series of courses are offered to non-degree seeking individuals desiring an opportunity to gain or improve marketable skills.

These courses are offered on a continuing basis at our campus location. We welcome inquiries from companies that may wish to investigate the possibility of offering them on-site at company locations.

Students enrolling in an associate degree program may apply these courses toward the degree if it is in the same area of study. Application for the "career enhancement" program should be made to the appropriate department head or academic dean.

Computer Science and Engineering Technology

C++ Certificate	Introduction to C++ Programming (ECA222) Visual C++ The Foundation Classes (ECA226) Software Engineering Design and Development with COM (ECA224)
Java Programming Certificate	Java Programming in Computer Science (ECA223) Database Design/Interface for Software Developers (ECA230) Advanced Java Programming for Software Engineering Applications (ECA239)
Visual Basic Certificate	Visual Basic for Applications (CAP224) Developing & Implementing Windows Based Applications w/Microsoft Visual Basic.NET (ECA128) Developing Database Applications using Microsoft ADO.NET (ECA238)

Interactive Media Technology

Interactive Media Certificate	Digital Audio/Video Production and Editing I (IMT222) Digital Audio/Video Production and Editing II (IMT223) Interactive Media (IMT121) Graphic Arts Design (IMT122) Product Development and Distribution (IMT225) Internship (IMT226)

Computer Technology

Instructional Design Certificate	Instructional Illustrations (ECA243) Instructional Design with Authorware (ECA242) CBT Development with Director (IMT123) Designing for Presentations (IMT236) Flash Animation and Design (IMT126) Internet Design Tools (IMT124)

Database Administration Technology

Database Administrator Oracle	Introduction to Oracle: SQL (CAP139) Oracle PL/SQL Programming Language (CAP141) Oracle Architecture and Administration (CAP142) Oracle Performance and Tuning (CAP249) Oracle Backup and Recovery (CAP250) Database Administrator – Introduction to Oracle: SQL (CAP139)
Microsoft SQL Server	Microsoft Windows 2000 Professional (ECA131) Microsoft SQL Server Administration (EET242) Programming a MS SQL Server Database with Transact SQL (CAP255) Designing & Implementing OLAP Solutions using MS SQL Server (CAP256)

E-Commerce Technology

Webmaster Certificate	Internet/Intranet Design and Development (ECA228) Applied Interactive Software Development (ECA225) Internet Design Tools (IMT124) Flash Animation and Design (IMT126)
Advanced Webmaster Certificate	Microsoft Server Side Scripting (ECA229) Open Source Server Side Scripting (ECA236) CFML Tools and Design (ECA234) Web Server Scripting (ECA247)

*These programs offer professional development for those already employed in the field and may also serve as a starting point for those considering the pursuit of a full associate degree program. Existing knowledge or skill base is assumed for certain courses. Absence of same may require prerequisite coursework. Applicants must secure department head or academic dean approval before completing the registration process. Non-degree seeking students may not be eligible for financial aid.

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Public Service Technologies

Careers in public service are in demand more than ever before. The public service technologies of Stark State College offer associate degrees in human and social services technology, fire science technology and early childhood education. These majors are attracting students in record numbers as our country renews its interest in public service careers. Firefighters, teachers aides, social worker paraprofessionals, emergency medical technicians and childcare workers are just a few in a long list of public service career opportunities.

Stark State's goal is to attract traditional and nontraditional students to careers in public service and to provide the quality training, education, skills and values necessary for our students to succeed and excel in those fields.

COLLEGE TECH PREP

A COLLEGE TECH PREP PARTICIPANT

Early Childhood Education Program

The early childhood education program prepares students for professional careers as teachers, assistants, and administrators in a variety of childcare/education settings. Graduates may seek employment in public and private preschool, childcare, 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 instructional skill development based on guidelines set by the National Association for Education of Young Children (NAEYC). The 69 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.

Effective fall 2001, students must 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 head, graduates may apply for their pre-kindergarten associate certificate from the Ohio Department of Education.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
ECE	121	Introduction to Early Childhood Education*	3
SOC	123	Dynamics of the Family	3
PSY	121	General Psychology	3
ENG	124	College Composition †	3
CAP	120	Business Computer Applications	4
			16
Semester II			
ECE	122	Curriculum Design and Instruction	3
ECE	123	Health Nutrition	3
SOC	225	Cultural Diversity	3
MTH	222	Statistics	3
PSY	125	Child Development I	3
SPH	121	Effective Speaking	3
			18
Semester III			
ECE	124	Infant-Toddler Curriculum	2
ECE	221	Language Arts	3
ECE	222	Creative Materials and Guided Play	3
ECE	223	Community and Family-based Programs	3
ECE	226	Wrap-around Programs	2
PSY	223	Child Development II	3
PHL	122	Ethics	3
			19
Semester IV			
ECE	224	Early Childhood Program Administration	3
ECE	225	The Exceptional Child	3
ECE	227	ECE Practicum and Seminar	3
ECE	228	Phonics for Young Children	3
BIO	126	Science, Energy and the Environment	4
			16

69 TOTAL CREDIT HOURS

* Developmental writing course requirements must be completed prior to enrollment.
† Based on SSCT placement score.

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Fire Science Technology

Fire protection is a complex and rapidly changing technical field. The fire science program will provide the knowledge and background necessary to meet the challenge of protecting the public in the 21st century.

Today's firefighter is a skilled professional who works with sophisticated techniques and equipment. A firefighter completing the program will benefit from a significant increase in knowledge of the profession as well as an enhanced ability to compete for promotional opportunities.

Students who are not currently members of the fire service will gain knowledge that may improve their opportunity for becoming a firefighter. They may also choose to pursue opportunities in the areas of industrial fire protection, insurance inspection and investigation, and fire equipment sales.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
FST	121	Introduction to Fire Science*	2
ENG	124	College Composition †	3
PSY	121	General Psychology	3
FST	124	Fire Prevention and Safety Codes	3
FST	227	Personnel Training and Public Relations	2
FST	126	Environmental Science**	3
			16
Semester II			
ENG	122	Communication Theory	3
FST	122	Fire Hydraulics	3
FST	222	Management in Fire Service	3
ENG	221	Technical Report Writing	3
MTH	101	Introduction to Algebra	4
FST	127	Emergency Medical Technician – Basic	5
			21
Semester III			
PHY	101	Principles of Physics	4
BUS	122	Basic Economics	3
FST	125	Building Construction for the Fire Service	2
FST	123	Fire Detection and Suppression Systems	3
FST	224	Legal Aspects of Fire Investigation	2
FST	226	Line Officer Leadership	3
			17
Semester IV			
CAP	120	Business Computer Applications	4
FST	225	Hazardous Materials	3
FST	223	Fire Investigation Methods	3
FST	221	Command Tactics and Strategies	3
SPH	121	Effective Speaking	3
			16

70 TOTAL CREDIT HOURS

* May use 240-hour course.
** May substitute the *four-hour course* Science Energy and Environment (BIO126).
† Based on SSCT placement score.

Due to the special requirements in Fire Science Technology, students in this program should meet with Fire Science faculty for advising.

COLLEGE TECH PREP
A COLLEGE TECH PREP PARTICIPANT

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Human and Social Service Technology

The human and social service technology (HSST) program prepares students for employment as paraprofessionals in the field of social work. Career opportunities are 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 toward 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.

Gerontology Option/Certificate of Competence
The gerontology option/certificate of competence provides students with knowledge and understanding of the normal but highly variable processes of aging and human development. Both prepare students to be more effective in working with older adults and in the implementation of programs and services for the elderly. The gerontology option/certificate of competence are both designed for the professional or paraprofessional individual currently working in the field of aging, students who anticipate working with older adults, or anyone who is interested in understanding the aging process for personal or professional reasons. The gerontology certificate of competence can be completed independently of or as part of the human and social service technology degree program.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
SWK	121	Introduction to Social Welfare	3
ENG	124	College Composition †	3
SOC	121	Sociology	3
SPH	121	Effective Speaking	3
CAP	120	Business Computer Applications	4
			16
Semester II			
SWK	128	Introduction to Gerontology	3
SWK	224	Poverty in the U.S.	3
PSY	121	General Psychology	3
SWK	127	Group Processes	4
BIO	127	Human Biology	4
			17
Semester III			
SWK	124	Methods in Practice I	3
SWK	126	Human Behavior and the Social Environment	3
MTH	222	Statistics	3
SWK	125	Substance Abuse	3
PSC	121	Political Science	3
		Elective*	3
			18
Semester IV			
BUS	122	Basic Economics	3
SWK	227	HSST Practicum	2
SWK	228	HSST Practicum Seminar	1
SWK	130	Methods in Practice II	3
SWK	226	Social Service Law	3
SOC	225	Cultural Diversity	3
		Elective*	3
			18

69 SEMESTER CREDITS

* Must select from list of approved SWK**, SOC and PSY courses.

** Students who successfully complete SWK 129 and SWK 230 as their technical electives, or in addition to their technical electives, may apply for the gerontology option and/or certificate of competence.

NOTE: Grade of "C" or better required for all courses relating to the gerontology option/certificate of competence.

† Based on SSCT placement score.

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Human Service Development Institute

Job and Family Services Certificate

The Human Services Development Institute (HSDI) houses the TOPS program (Training Opportunities for Program Staff) and the certificate in job and family services.

TOPS provides employment-related coursework designed for human service professionals in state and local agencies. This initiative is designed to enhance and expand the knowledge and skills of employees to effectively administer a variety of social services and employment programs which promote self-support and self-sufficiency.

The certificate in job and family services is designed to prepare, or enhance, individuals interested in a career in human and social services. Coursework for the certificate covers a variety of topics relevant to employment in a department of job and family services or in an organization that collaborates with the agency. The required practicum experience permits students to utilize the course materials in an internship-type position prior to entering the workforce. Basic education coursework compliment the agency-specific courses providing a solid academic foundation.

Upon completion of the required 34 semester hours, the curriculum transfers to the associate degree program in human and social service technology. The associate's degree may be applied to the transfer module for baccalaureate degrees in social work at participating colleges and universities.

The job and family services certificate may be completed by a full-time student in three semesters. Students will be expected to complete the program within four years of their initial application.

SUGGESTED COURSE SEQUENCE

			Credit Hours
Semester I			
HST	266	Overview of Job and Family Services*	2
HST	261	Welfare to Work	2
CAP	120	Business Computer Applications**	4
HST	250	Strategies for Change	2
ENG	124	College Composition †	3
PSY	121	General Psychology	3
			16
Semester II			
HST	223	Information and Time Management Skills	2
HST	257	Interviewing Skills	2
HST	258	Family Assessment****	1
HST	264	Case Management for Self-Sufficiency ++	1
HST	246	Collaboration for Social Service Workers	2
HST	270	Ethics and Legal Issues	1
SWK	126	Human Behavior and Social Environment	3
			12
Semester III			
MTH	222	Statistics †	3
SWK	227	Social Service Practicum***	2
SWK	228	Practicum Seminar***	1
			6

34 TOTAL CREDIT HOURS

* Developmental writing course must be completed prior to enrollment.
** Students may substitute four of eight one-credit hour computer courses offered by HSDI for CAP 120.
*** Three one-credit hour HSDI practicum credits may be substituted with HSDI approval for SWK 227/228.
**** Students employed by state or county DJFS may substitute core job-related classes with HSDI approval.
† Based on SSCT placement score.
++ Web-enhanced course – must have email and computer access.

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Course Descriptions

Course descriptions in this section are listed *in alphabetical order by the **Course ID number***. For example, biology courses are listed under BIO, information reporting technology courses are listing under OAD, etc. In order to find the corresponding Course ID abbreviation, an alphabetical listing of departments and technologies follows:

Accounting Technology – ACC
Administrative Information Technology – OAD
Applied Industrial Technology – AIT
Automotive Technology – AUT
Biology – BIO
Business Technology – BUS
Center for Accelerated Learning – CAL
Chemistry – CHM
Civil Engineering Technology – CET
Computer Science and Engineering Technology – ECA
Computer Technology – CAP
Dental Hygiene – DHY
Design Engineering Technology – DET
Early Childhood Education Technology – ECE
Electrical/Electronic Engineering Technology – EET
Electrical Maintenance Technology – EST
Electrical Power Utility Technology – EUT
English – ENG
Environmental Technology – ENV
Financial Services Technology – FIN
Fire Science Technology – FST
Health Information Technology – HIT
Heating, Ventilation and Air Conditioning Technology – HVC
Human Service Development Institute – HST
Industrial Engineering Technology – IET
Information Reporting Technology – CCR
Inter-Departmental Studies – IDS
Interactive Media Technology – IMT
Management Technology – MGT
Marketing Management – MKT
Massage Therapy – MAS
Mathematics – MTH
Mechanical Engineering Technology – MET
Mechanical Service Technology – MST
Medical Assisting – MAT
Medical Laboratory Technology – MLT
Medical Transcription Certificate – MTC
Nursing (ADN) (LPN to RN) – NUR
Occupational Therapy Assistant Technology – OTA
Philosophy – PHL
Physical Therapist Assistant Technology – PTA
Physics – PHY
Political Science – PSC
Psychology – PSY
Respiratory Care Technology – RCT
Sociology – SOC
Social Work – SWK
Speech – SPH
Special Courses in Business Technologies – BTD
Special Courses in Engineering Technology – ETD
Special Courses in General Studies and Public Service Technology – GSD
Special Courses in Health Technology – HTD

All academic units are expressed in terms of "credit hours." Stark State College defines a "credit hour" based on the requirements of the Ohio Board of Regents.

"Contact hours" may involve lecture, laboratory activities, clinical practice and/or instructor-directed activities.

Accounting Technology

ACC121
PRINC OF ACCOUNTING I **4** **4**
Co-Req BUS123
This course is the first part of a two-semester sequence which introduces students to generally accepted accounting principles and practices in financial accounting as applied in business organizations. Upon completion of this course, students should be able to prepare financial statements and understand their uses.

ACC122
PRINC OF ACCOUNTING II **4** **4**
Pre-Req ACC121
This course is the second part of a two-semester course in financial accounting. The understanding and application of generally accepted accounting principles is continued and further explored as they apply to assets, claims to assets, revenue and expenses. Upon completion of this course, students should be able to complete the entire accounting cycle from transactions to financial statements using a computerized practice set.

ACC124
TAXATION **4** **4**
Pre-Req BUS123
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.

ACC127
QUANT BUS RESEARCH METHODS **3** **3**
Pre-Req MTH101
This course provides knowledge and application to the Method Research methods 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 the fields of marketing research.

ACC129
BUSINESS LAW **4** **4**
Pre-Req ACC130
This course covers topics in Business Law that are covered by the Uniform CPA Examination. Upon completion of this course, the student should be able to recognize relevant legal issues and apply the underlying principles of law to accounting and auditing situations.

ACC130
BUSINESS LAW & ETHICS **3** **3**
Pre-Req ENG102
An examination of the functions of the courts 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 understanding of the business law and ethical areas mentioned above.

ACC132
FINANCIAL ACCOUNTING **4** **4**
Co-Req BUS123
The course introduces the concepts of accounting information, the accounting-cycle, and financial accounting principles. This course is a fundamental study of the principles and procedures of accounting as applied to sole proprietorships, partnerships and corporations. Upon completion, students should be able to demonstrate competence in applying financial principles and procedures as related to these forms of business ownership. ACC121 and ACC122 may be substituted for this course.

ACC133
MANAGERIAL ACCOUNTING **4** **4**
Pre-Req ACC122 or ACC132
This course has an emphasis placed on accounting as a tool for planning and control. We examine the statement of cash flows; ratios; cost behavior; cost-volume-profit analysis; operational, financial, and capital budgeting; and other decision criteria. Upon successful completion of this course, the student should be able to apply fundamental concepts of managerial accounting in making business decisions.

ACC134
INTERNATIONAL LAW **3** **3**
Pre-Req ACC130
The law and international transactions are explored. Also covered are sovereignty, treaties, agreements, antitrust practices, property rights and international arbitration. Upon completion of this course, students should be able to understand the sources of international law and its impact on businesses with international transactions.

ACC221
INTERMEDIATE ACCT I **4** **4**
Pre-Req ACC122, ACC132
Co-Req ACC127
This is the first in a two-course sequence in the detailed study of accounting theory. It is a study of conceptual framework of accounting, disclosure standards for general purpose financial statements, and measurement standards for assets, current liabilities, 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 as related to these assets and current liabilities.

ACC222
INTERMEDIATE ACCT II Credit Hours: **4** Contact Hours: **4**
Pre-Req ACC221

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 clash flows.

ACC223
COST ACCOUNTING Credit Hours: **4** Contact Hours: **4**
Pre-Req ACC133, ACC127

This course in cost accounting places an emphasis on manufacturing and service organizations. Topics include job costing, process costing, activity-based costing/ activity-based management, standard costing and analysis of cost variances. Upon completion of this course, the student should be able to apply fundamental concepts of cost accounting in making business decisions.

ACC225
AUDITING Credit Hours: **4** Contact Hours: **4**
Co-Req ACC222

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 and audit work papers. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting an audit.

ACC226
ADVANCED ACCOUNTING Credit Hours: **3** Contact Hours: **4**
Co-Req ACC222

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.

ACC227
CURRENT ACCOUNTING TOPICS Credit Hours: **3** Contact Hours: **3**
Pre-Req ACC122 or ACC132

A practical course involving the detailed study of current accounting practice in areas of special interest. Topics included are payroll, receivables, payables and other emerging issues. The record-keeping, reporting and legal requirements of each area are covered. Upon successful completion of this course, the student should be proficient in the procedures and handling of the records involved in the topics covered.

ACC228
ADVANCED TAXATION Credit Hours: **3** Contact Hours: **3**
Pre-Req ACC124

This is an elective, second-semester course in the taxation sequence. The principles of taxation developed in the first semester are developed more fully, and more complex problems are analyzed. There is an introduction to the taxation of corporations, partnerships, estates, trusts, and gifts. Upon completion of the course, the student should be able to analyze complex taxation scenarios of various forms of a business entity and determine their impact on the entity's liability.

ACC229
ACCT PRACTICE & PROBLEMS Credit Hours: **3** Contact Hours: **4**
Pre-Req ACC122 or ACC132, CAP120 or CAP124

This course involves the application of the student's accounting knowledge in an automated setting. The student will record and report accounting information using various commercial accounting systems on the personal computer. Upon successful completion, the student should have a functional knowledge of automated accounting systems.

ACC232
GOVT & NOT-FOR-PRFT ACCT **3** **3**
Pre-Req ACC122, ACC132
This is an elective course in accounting for governmental and not-for-profit organizations. Upon completion of the course, the student should be able to discuss the budget, control and accounting processes for entities in these areas and assist in the preparation of their financial statements.

Applied Industrial Technology

AIT121
MACHINE TOOLS I **3** **3**
The machine tool trades are presented. Topics include: an in-depth coverage of safety; exposure to parts processing, including the appropriate shop math concepts; basic metrology, including English to metric conversion; metal stamping; mold processing and surface grinding.

AIT122
MACHINE TOOLS II **3** **5**
With assigned lab projects, the student will cover basic machine operations used in area industries. Topics include safety, basic machines, precision tools, layout procedures, cutting tools and various machine setups to accomplish laboratory projects. Inspection and quality control will be stressed.

AIT123
ADVANCED MACHINE TOOLS III **4** **6**
Pre-Req AIT122
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.

AIT124
PRINCIPLE OF RIGGING **3** **4**
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.

Automotive Technology

AUT121
AUTOMOTIVE TECH SKILLS **2** **3**
This is an introductory level course that will provide the student with an understanding of the correct use of precision measuring equipment, hand tools, shop equipment, cutting torches and service repair manuals. 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 the repair procedures for basic automotive components and systems. Classroom learning will be reinforced by lab activities.

AUT122
AUTOMOTIVE SYS & ENG TEC **4** **6**
This course will introduce the student to the technology and terminology used within 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 the combustion process, fuel systems and basic emission controls will be presented. Classroom learning will be reinforced by laboratory activities.

AUT123
ENG DIAGNOSIS & MAJ SERV **4** **6**
Students will study the procedures used for automobile engine and systems diagnosis and overhaul. During the diagnosis portion of this course, students will learn how to use specialized engine diagnostic test equipment. Covered also will be customer questioning techniques and information gathering procedures. During the laboratory portion of the course, students will gain hands-on experience in engine disassembly procedures, failure diagnosis, component inspection, machining processes, measuring, fitting and reassembly techniques.

AUT124
VEHICLE CHASSIS SYSTEMS **4** **6**
This course is designed to give the student knowledge of 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 chassis alignment and braking systems servicing will be covered. Quality work methods used when diagnosing, adjusting and repairing these safety-related systems are stressed.

AUT125
AUTO ELEC'L & ACCES SYS **4** **6**
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 meters and electrical test instruments.

	Credit Hours	Contact Hours

AUT126
AUTO HVAC SYSTEMS **2** **3**
Pre-Req AUT121

Students will study the design characteristics and operating principles of automotive heating, ventilation and air conditioning systems. Topics include: heat transfer, heating and cooling cycles, air flow management and component identification. Systems operation and troubleshooting techniques are reinforced by laboratory exercises including the recovery and recycling operations required for R12 and R134a refrigerants.

AUT221
FUEL & EMISSIONS MGT SYS **3** **4**
Pre-Req AUT121

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. Laboratory activities include overhaul and adjustment of carburetors, throttle body and port fuel injection systems, and emission control devices such as those utilized with EGR, AIR and EVAP systems.

AUT222
ENGINE SYS PER DIAGNOSIS **3** **4**
Pre-Req AUT121

By lecture and practical demonstration, this course presents the techniques used for correct analysis of engine performance and drivability problems. Emphasis is placed on interpretation of manufacturers' product service information and technical service bulletins. Laboratory assignments utilizing diagnostic equipment, 4 and 5-gas analyzers and oscilloscopes will reinforce student learning.

AUT223
ADV AUTO ELECTRONIC **3** **4**
Pre-Req AUT123

This course provides an in-depth study of the complex electronic devices and systems used for fuel management, ignition timing, driveline and emission control. The operation of automotive microprocessors, sensors and actuators is presented in lecture and by practical demonstration. On-vehicle problem-solving exercises utilizing diagnostic charts and specialized diagnostic equipment are a major part of student laboratory activities.

AUT224
AUTO DIESEL SYSTEMS **2** **2**
Pre-Req AUT121

Covered by lecture and demonstration is the theory of operation of automotive diesel engines and auxiliary equipment such as injection pumps, glow plug control systems and diesel emission control devices. Student learning is reinforced by laboratory exercises emphasizing the correct application of diagnostic procedures and servicing methods used with automotive diesel systems.

	Credit Hours	Contact Hours

AUT225
AUTO DRIVETRAIN 1 **3** **4**
Pre-Req AUT121

In this course, the student will learn the design characteristics and operation of clutches, manual transmission/ transaxles, rear axle assemblies, four-wheel drive systems and traction assist devices. From lab assignments students will receive hands-on experience in the diagnosis, servicing and overhaul of these units.

AUT226 AUTO DRIVETRAIN 2 **3** **4**
Pre-Req PHY101, AUT225

This course continues the study of automotive transmissions by introducing the student to systems that utilize hydraulic principles and fluid flow dynamics in the control of automatic transmission geartrains. Student knowledge of individual transmissions and subassemblies operation will be reinforced by hands-on laboratory activities which include dynamometer testing of rebuilt transmissions. The basic operation and diagnosis of electronically controlled transmissions will be introduced.

AUT227
COMPUTERIZED VEH CONTROL **3** **4**
Pre-Req AUT121

The emphasis in this course is placed upon problem-solving strategies utilized in the diagnosis of computerized vehicle control systems. Subjects covered by lecture and practical demonstration include data stream and trouble code analysis, advanced scanner and oscilloscope techniques and diagnosis of body computer control systems.

AUT228
AUTO SERVICE MANAGEMENT **2** **3**

The course provides an introduction to the theory and practice of an important mid-management position in the automotive service industry. To provide the basic knowledge and skills necessary for this position, topics include: customer-employee relations, scheduling and dispatching, legal and ethical responsibilities, consumer affairs, financial aspects and quality assurance programs. A field service component is incorporated in the course work.

AUT229
AUTO MAINTENANCE WELDING **2** **4**
Pre-Req AUT121

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.

AUT230
TECHNICAL PROJECT **2** **3**
This is an independent study course in which the student will create an automotive-oriented project that utilizes skills learned in previous automotive technology courses. The student will select an approved subject which may include functions such as research, construction and testing. Progress and performance will be evaluated throughout the semester.

AUT231
SPECIALIZED ELEC TRAIN **3** **4**
Pre-Req AUT125
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.

AUT232
FUEL INJECTION-EFI/PFI **2** **2**
Pre-Req AUT223, AUT227
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 driveability 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.

AUT233
AUTO DIAGNOSTIC APPLIC **2** **3**
Pre-Req AUT22, AUT223
An advanced-level course that serves as a capstone for the automotive technology program by providing 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.

Biology

BIO101
INTRO TO ANAT & PHYSIO **3** **3**
Provides understanding of human structure and function of all body systems. Focus will be given to beginning chemistry principles, cells and tissues. This course is for the student who has little or no background in human anatomy and physiology.

BIO121
ANATOMY & PHYSIOLOGY I **4** **5**
Pre-Req BIO101
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.

BIO122
ANATOMY & PHYSIOLOGY II **4** **5**
Pre-Req BIO121
Continued study of the human body focuses on the influence provided by the nervous and endocrine systems upon the cardiovascular, respiratory, renal, digestive and reproductive systems. Introductory immunology concepts are also included. The laboratory portion is similar to that presented in Anatomy & Physiology I with the addition of case study presentations which allow the student to contrast normal physiology with basic pathophysiology.

BIO123
PRIN OF HUM STRUCT & FUN **5** **7**
Pre-Req BIO101
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 | Contact Hours

BIO124
PATHOPHYSIOLOGY 3 3
Pre-Req BIO122 or BIO123
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.

BIO125
MEDICAL TERMINOLOGY 3 3
An introduction to medical word structure, including prefixes, suffixes, roots, plurals and abbreviations. Spelling, definitions and pronunciation are stressed and reinforced by frequent examination.

BIO126
SCIENCE,ENERGY & THE ENV 4 5
Utilizing interdisciplinary and theme-based learning, this course examines major environmental and energy problems and evaluates possible solutions to those problems. Topics include biodiversity, human population growth, water, air, and soil pollution, and hazardous and solid wastes. Emphasis is placed on cooperative learning, analytical thinking and problem-solving as students examine environmental issues. Laboratory and field experiences reinforce the basic ecological principles.

BIO127
HUMAN BIOLOGY 4 6
Human Biology presents the human as an organism as it relates to itself, to other humans, and to the environment. Lecture will present the scientific study of the human body including the aging process. Observations about the human at the chemical, cellular and systemic levels will be made in the laboratory incorporating a variety of laboratory experiences and may include the observation of human cadavers and other preserved specimens as learning tools. Practical work and group learning strategies will be used to facilitate evaluative learning in both the lecture and lab. The course will guide the student in a multidisciplinary study of the biology of human life.

BIO221
PRINC OF MICROBIOLOGY 4 6
Pre-Req BIO122 or BIO123
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 | Contact Hours

BIO222
PHARMACOLOGY 3 3
Pre-Req BIO122 or BIO123
A course that introduces the student to general pharmacology, including drug nomenclature, classifications, and therapeutic and side effects on the body systems and functions.

Special Business Technology Courses

BTD201
BUS INDEPENDENT STUDY 1 10
An independent study may be arranged through the Business Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean for Business Technologies will determine course content, meeting schedules and credit hours.

BTD202
BUS INDEPENDENT STUDY 2 20
An independent study may be arranged through the Business Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean for Business Technologies will determine course content, meeting schedules and credit hours.

BTD203
BUS INDEPENDENT STUDY 3 30
An independent study may be arranged through the Business Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisory and dean for Business Technologies will determine course content, meeting schedules and credit hours.

BTD204
BUS INDEPENDENT STUDY 4 40
An independent study may be arranged through the Business Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Business Technologies will determine course content, meeting schedules and credit hours.

BTD222
BUSINESS CO-OP 2 20
Co-op opportunities are available to students enrolled in Business Technologies. Students may contact their faculty advisors or Career Services for more information.

BTD223
BUSINESS CO-OP 3 30
Co-op opportunities are available to students enrolled in Business Technologies. Students may contact their faculty advisors or Career Services for more information.

BTD224
BUSINESS CO-OP **4** **40**
Co-op opportunities are available to students enrolled in Business Technologies. Students may contact their faculty advisors or Career Services for more information.

BTD225
SPECIAL TOPICS **1** **1**
Special topics in Business Technology Division. Repeat registration permitted.

BTD226
SPECIAL TOPICS **2** **2**
Special topics in Business Technology Division. Repeat registration permitted.

BTD227
SPECIAL TOPICS **3** **3**
Special topics in Business Technology Division. Repeat registration permitted.

BTD228
SPECIAL TOPICS **4** **4**
Special topics in Business Technology Division. Repeat registration permitted.

Business Technology

BUS121
BUSINESS ADMINISTRATION **4** **4**
Pre-Req ENG102 or proficiency
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.

BUS122
BASIC ECONOMICS **3** **3**
Pre-Req ENG102 or proficiency
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.

BUS123
BUSINESS MATHEMATICS **4** **4**
Pre-Req MTH101 or proficiency
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 and inventory control, simple interest, business statistics, 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.

BUS221
MICROECONOMICS **3** **3**
Pre-Req ENG102 or proficiency
An in-depth study of microeconomic concepts and principles such as supply and demand, cost and output determination in different market structures and marginal analysis. Upon completion, students should be able to demonstrate an understanding and be able to apply the above topics to business.

BUS222
MACROECONOMICS **3** **3**
Pre-Req ENG102
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.

BUS223 INTERNATIONAL ECONOMICS **3** **3**
Pre-Req BUS221, BUS222
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.

Center for Accelerated Learning (CAL)

CAL101
RDG TECH COMPREHENSION **3** **3**
A computer-assisted laboratory course designed to enhance students' performance in college-level course work. Included in the curriculum are units on effective note-taking, organizational skills, test-taking strategies, critical reading skills, speed reading, stress reduction strategies, library utilization skills, learning styles and other related topics. Placement based on score achieved on entrance assessment tests. Proficiency of 80% constitutes passing.

Credit Hours | Contact Hours

CAL102
INTRODUCTION TO GRAMMAR 3 3
A computer-assisted course that stresses basic rules of grammar, punctuation, spelling and sentence writing. Placement based on score achieved on entrance assessment tests. Proficiency of 80% constitutes passing.

CAL103
MATH FUNDAMENTALS 4 4
This course covers the fundamentals of arithmetic and basic algebraic concepts. Topics include arithmetic operations, fractions, decimals, percentages, ratios, proportions, metric system, areas, volumes, signed numbers, introduction to equations and application problems. Placement based on score achieved on entrance assessment tests. Proficiency of 80% constitutes passing.

CAL104
COMPUTER CONCEPTS 1 2
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.

CAL105
WRITING FUNDAMENTALS 3 3
A course covering the fundamentals of grammar, punctuation and usage. This systematic review is incorporated within sentence and paragraph applications. Proficiency of 80% constitutes passing, (A, B, NC/F).

Computer Technology

CAP120
BUSINESS COMPUTER APPLICATIONS 4 5
Pre-Req CAL104, OAD100, OAD125
Business Computer Applications is designed to present the essential concepts of Microsoft Office Suite applicable to today's business world. Areas of concentration include Windows, Word, Excel, Access, and PowerPoint. Upon completion, students should be able to demonstrate competency by interacting with the Windows operating system and to produce electronic presentations, written business documents, electronic spreadsheets and business graphics.

CAP125
ADVANCED MICROSOFT APPLIC 3 4
Pre-Req ECA122, CAP120
This course is designed to present Microsoft Office concepts in further detail. MS Word, Excel, Power Point, and Outlook will be covered at an advanced level required by most tier 2 help desks. Upon completion, students should be able to troubleshoot and provide technical support for sophisticated documents, workbooks, presentations and e-mail related issues.

Credit Hours | Contact Hours

CAP127
COBOL PROGRAMMING 3 4
Pre-Req ECA127, CAP138, CAP121
Students will develop a working knowledge of the COBOL language for solving typical business problems. Topics discussed include COBOL structure, language syntax, structure charts, debugging, program testing and program execution. Upon completion, the student should be able to write, test and debug a simple COBOL program from a set of program specifications.

CAP135
INTRO TO COMPUTERS 1 2

CAP136
NETWARE ADMINISTRATION 3 4
Pre-Req CAP253, EET141, ECA125
This course will present the fundamental network management concepts necessary to manage a NetWare network. Specific topics will include managing network access, distributed print services, managing files systems, managing life system security, creating and managing login scripts, managing NDS security, distributing and managing network applications, and managing workstations in a NDS environment.

CAP138
ISERIES OPERATING ENVIRONMENT 3 4
Pre-Req ECA122, CAP120, ECA127, CAP121
Addresses the fundamental operations, screens and terminology of the iSeries operating system. Exposure is given to different CL commands and menus used to create, maintain, and manipulate libraries, objects and members on the iSeries. Students should gain an understanding of object structure, utilities and database management capabilities and the Control Language.

CAP139
INTRO TO ORACLE SQL 3 4
This course offers students an extensive introduction to data server technology. The class covers the concepts of both relational and object relational databases and the powerful SQL programming language. Students are taught to create and maintain database objects and to store, retrieve, and to manipulate data, Students learn to write SQL and SQL*Plus script files using the SQL*Plus tools to generate report-like output. Demonstrations and hands-on practice reinforce the fundamental concepts.

CAP141
ORACLE PL/SQL PROGRAMMING LANG 3 4
Pre-Req CAP139
The course introduces PL/SQL and helps students understand the benefits of this powerful programming language. The student will create PL/SQL blocks of application code that can be shared by multiple forms, reports and data management applications. The student will use SQL*Plus to develop these program units, learn to manage PL/SQL program units and database triggers to manage dependencies, to manipulate large objects, handle exceptions and to use some of the Oracle-supplied package.

Credit Hours | Contact Hours

CAP142
ORACLE ARCHITECTURE & ADMIN 3 4
Pre-Req CAP139
Students will gain a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. They will also learn how to create an operational database and properly manage the various structures in an effective and efficient manner. All lesson topics are reinforced with structured hands-on labs.

CAP221
RELATIONAL DATABASE 3 4
Pre-Req CAP138
Develop a working knowledge of relational database concepts including Structured Query Language (SQL), relational database design, entity relationship (E-R) diagrams and normalization. Upon completion, the student should be able to design, build and load a relational database and produce SQL reports using a DB2 database on the IBM iSeries.

CAP223
MICROSOFT ACCESS DATABASE 3 4
This course introduces the basic concepts of Database Management Systems and the conceptual analysis of their purpose and use. Primary emphasis is on acquiring a working knowledge of a database management system. 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. Upon completion, the student should be able to develop confidence and skill by developing, maintaining and using database applications.

CAP224
VISUAL BASIC FOR APPLICATIONS 3 4
Pre-Req CAP120, CAP223
This course will expose students to Microsoft Visual Basic for Applications. VBA is a powerful development technology for rapidly customizing rich-client desktop packaged applications and integrating them with existing data and systems. VBA offers a sophisticated set of programming tools based on the Microsoft Visual Basic development system.

CAP239
INTRO TO THE INTERNET 1 2
This course is designed to teach students to use the Internet in a productive way through effective use of computer hardware and software. It will cover, through lecture and hands-on exercises, the basic tools, services and methods used for working with the Internet. Students will learn how to access the large collection of resources available on the Internet and how to communicate with other Internet users. Also covered will be the basics on how the Internet works. Upon completing the course, the student should have a basic understanding of the Internet and should be able to use basic Internet access tools to access the Internet.

Credit Hours | Contact Hours

CAP248
APP DEVEL FOR ORACLE DATABASE 3 4
Pre-Req CAP139
The course teaches participants how to develop code for database applications. Topics include Oracle database access with Java, XML, PL/SQL, WebDB as well as Web Site Development with Oracle.

CAP249
ORACLE PERFORMANCE AND TUNING 3 4
Pre-Req CAP142
Students develop the ability to manage an advanced information system and learn several methods to enhance performance of the Oracle database. Hands-on workshops provide experience in a realistic technical environment. Upon completion, students should develop the skills that will prepare them for a database administration position.

CAP250
ORACLE BACKUP AND RECOVERY 3 4
Pre-Req CAP142
Students develop the ability to manage an advanced information system and learn several methods to backup and to recover the Oracle database. Hands-on workshops provide experience in a realistic technical environment and help students develop skills for basic network administration.

CAP251
ADV NETWARE ADMINISTRATION 3 4
Pre-Req CAP136
This course provides students with the knowledge and skills they need to design, configure and administer a complex Netware network. Skills learned include upgrading from a Netware environment, migrating to Netware distributed print services, executing Java based utilities, network backup and configuring Netware for remote access.

CAP254
DEV INTERNET APPS ON ISERIES 3 4
Pre-Req CAP138
Students learn to build Web-based applications quickly through using a variety of tools and utilities including Visual Age Java to write web page scripts and the Websphere Development Studio for the iSeries. Upon completion, students should be able to create and deploy a web-based application on a WebSphere Application Server.

CAP255
PROG MSFT SQL SERVR DTBA W/SQL 3 4
Pre-Req EET242, CAP143
At the end of this course, students will be able to describe the elements of SQL Server 2000; design a SQL Server enterprise application architecture; describe the conceptual basis of programming in Transact-SQL; create and manage databases and their related components; implement data integrity by using the IDENTITY column

property, constraints, defaults, rules, and unique identifiers; plan for the use of indexes; create and maintain indexes; create, use and maintain data views; implement user-defined functions; design, create, and use stored procedures; create and implement triggers; program across multiple servers by using distributed queries, distributed transactions, and partitioned views, optimize query performance; analyze queries; and manage transactions and locks to ensure data concurrency and recoverability.

CAP256
DES & IMPL OLAP SOLUTIONS Credit Hours: **3** Contact Hours: **4**
Pre-Req EET242
This course provides students with the knowledge and skills necessary to design, implement, and deploy OLAP solutions by using Microsoft SQL Server analysis services.

CAP257
MS APPLICATION TECHNICL EXPERT Credit Hours: **3** Contact Hours: **4**
Pre-Req CAP125
This course will focus on advanced Microsoft Office functionality from the perspective of the help desk technician. The topics included are macros,VBA, creating online forms, linking Excel worksheets and charting data in Word, auditing in Excel, Importing external data, creating data maps, creating reports in Access, and distributing presentations to remote audiences.

Information Reporting Technology

CCR121
CR THEORY I Credit Hours: **4** Contact Hours: **8**
Introduces to stenotype machine theory and technique, with emphasis on recording, note reading, and transcribing practice in preparation for more advanced courses in machine reporting. Students will learn realtime electronic shorthand with instruction utilizing online, computer-aided transcription technology. Upon completion, the student should be able to demonstrate knowledge of stenotype machine theory learned in CR Theory I.

CCR122
CR THEORY II Credit Hours: **4** Contact Hours: **8**
Pre-Req CCR121
Mastery of stenotype machine theory and technique. Instruction and practice to develop recording, note reading and typewritten transcription skills, as well as mastery of realtime electronic shorthand in preparation for more advanced courses in the Information Reporting Technologies program. Instruction shall include the use of online, computer-aided transcription technology. Upon completion, the student 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.

CCR123
SPEEDBUILDING III Credit Hours: **2** Contact Hours: **6**
Pre-Req CCR130
A required lab for skill development refining techniques necessary for perfecting speed and accuracy in transcription of specialized dictation material. Student will be expected to complete weekly activities, practice realtime/captioning on stenograph machine, use online computer-aided 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 courtroom testimony material at 225 wpm with a minimum of 95% accuracy; and for the captioning option, passing one 5-minute machine shorthand test of literary at 200 wpm with 98% accuracy before writing a 30-minute broadcast news program with a TER goal of 98% accuracy or higher based on total word count (TER = Total Error Rates). Upon graduation,

CCR129
SPEED BUILDING I Credit Hours: **4** Contact Hours: **8**
Pre-Req CCR122, OAD121
Designed to increase speed, endurance, and accuracy for reporting of multi-voice testimony, jury charge, 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 will include the use of on-line, 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.

CCR130 SPEED BUILDING II Credit Hours: **4** Contact Hours: **8**
Pre-Req CCR129
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 shall 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.

CCR131
LEGAL TERMINOLOGY Credit Hours: **3** Contact Hours: **4**
Instruction in legal terminology in civil law; criminal law; and the discovery, trial and appellate processes. Upon completion, the student should be able to comprehend, appreciate and use legal terms.

Credit Hours | Contact Hours

CCR228
REALTIME TRANSCRIPTION 3 4
Pre-Req BIO125, CCR129
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.

CCR229
REALTIME SOFTWARE APPLICATIONS 3 4
Pre-Req CCR122
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 stenograph 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.

CCR230
CAPTIONING I 3 4
This course is designed to teach students the basics of broadcast captioning. The students will be evaluating their writing skills for captioning, learning captioning style guidelines, creating and managing captioning dictionaries, and the basic formats for writing news, sports, weather and other broadcasts. Upon completion, students should be able to demonstrate knowledge of realtime/ caption production.

CCR231
JUDICIAL PROCEDURES 3 4
Pre-Req CCR122, CCR229
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 | Contact Hours

CCR232
INFORMATION REPRTING INTRNSHP 2 7
Pre-Req CCR130, CCR123
The following must be met for each option in the IRT program:

Judicial Option: Internship shall include a minimum of 50 hours of participation (40 hours of actual writing time) under the supervision of a practicing realtime reporter using machine shorthand technology. Specific graduation requirements must be passed for the judicial option: three 5-minute machine shorthand tests of literary at 180 wpm, jury charge at 200 wpm and courtroom testimony material at 225 wpm must be passed with a minimum of 95% accuracy; must transcribe a simulated RPR skills test at RPR speed levels in 3.5 hours; and must write a simulated CRR skills test at a speed of 180-200 wpm literary for 5 minutes.

Captioning Option: Internship shall include a minimum of 50 hours of captioning under the supervision of a practicing captioner or institutional instructor. Specific graduation requirements must be passed for the captioning option: one 5-minute machine shorthand test of literary at 200 wpm must be passed with 98% accuracy before writing 30-minute broadcast news program with a TER goal of 98% accuracy or higher based on total word count. (TER = Total Error Rates)

Realtime Transcription Option: Internship shall include a minimum of 50 hours of realtime transcription in an administrative environment or under supervision of an institutional instructor. For all options in the IRT program: Pass at least two 5-minute keyboarding tests from unfamiliar material at a minimum of 60 wpm with a maximum of 5 errors. Upon graduation, students should be able to pass the National Court Reporters Association's certification examinations relevant to their option.

CCR235
CAPTIONING II 3 4
This course is designed to teach students in-depth realtime/ caption skills. Topics include how to research for specific shows, development and management of specific captioning dictionaries, further 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.

Civil Engineering Technology

CET121
BLDG MAT & CON MET — Credit Hours: 3 — Contact Hours: 4
This course familiarizes the student with the basic materials of construction according to their physical properties, durability and suitability for use under varying conditions. Use of materials in combination with one another and in the finished product will be examined both verbally and graphically. Emphasis is placed on material selection according to given criteria.

CET122
ARCHITECTURAL DRAFT I — Credit Hours: 3 — Contact Hours: 5
This course familiarizes the student with the preparation and comprehension of basic architectural drawings. Intended for those with little or no drafting experience, the course will concentrate on drafting techniques through the drafting of plans, elevations and selected details, in pencil on vellum.

CET123
ARCHITECTURAL DRAFT II — Credit Hours: 3 — Contact Hours: 5
Pre-Req CET122
Co-Req CET121
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.

CET124
HIGHWAY & MAP DRAWING — Credit Hours: 2 — Contact Hours: 4
Pre-Req MTH121
Surveyors' notes are used by the student to develop and draw topographic and contour maps and plan-profile sheets for highway construction. Proper interpretation and uses of these drawings are also discussed.

CET125
SOIL MECHANICS — Credit Hours: 3 — Contact Hours: 4
Pre-Req MTH121, MET124
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.

CET221
SURVEYING GRAPHICS — Credit Hours: 3 — Contact Hours: 4
Pre-Req CET227, DET125
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.

CET222
CONCRETE & ASPHALT TEST — Credit Hours: 3 — Contact Hours: 4
Pre-Req CET121, MTH121
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.

CET223
STRUCTURAL DESIGN I — Credit Hours: 3 — Contact Hours: 5
Pre-Req MET124
This course introduces the student to the analysis of simple structures. Topics include the application of loads on structures, and the analysis and design of steel and concrete members such as beams, columns, and frames. Current computer software for structural analysis will also be used.

CET224
STRUCTURAL DESIGN II — Credit Hours: 3 — Contact Hours: 5
Pre-Req CET223
Analysis and design of wood members (beams, columns) will be covered in this class. Advanced topics in steel connections and concrete reinforcement of beams, slabs, columns, footings and retailing walls will also be studied. Current computer software for structural analysis will be used.

CET225
SITE AND BUILDING SERVICE SYS — Credit Hours: 3 — Contact Hours: 5
Pre-Req CET121, MTH121, sophomore status
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.

CET226
ESTIMATING — Credit Hours: 3 — Contact Hours: 5
Pre-Req CET121, ECA122, MTH121, CET122, DET125
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.

CET227
SURVEYING I — Credit Hours: 3 — Contact Hours: 5
Pre-Req MTH121
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	Contact Hours

CET228 SURVEYING II **3** **5**
Pre-Req CET227

Course covers methods and procedures for establishing line and grade for construction. Circular, spiral and parabolic curves, earth volume determination, cross-sectioning methods and advanced construction staking methods are also covered. The student is also introduced to electronic total stations and data collection. Use of the computer will be emphasized.

CET229
SURVEYING III **3** **5**
Pre-Req CET228, ECA122

The primary emphasis of this course will be the use of the electronic total station to perform surveying operations. Increased abilities and accuracies of field work, including precision measurement, will be demonstrated and obtained by students in such areas as traversing, horizontal and spiral curve layout, construction staking and data gathering for topographic maps. Appropriate computer software will be used. The student will also experience increased usage of digital levels and automatic data collection along with geodetic survey methods and state plane coordinate systems.

CET231
LEGAL PRINC OF SURVEYING **3** **3**

The laws of land ownership, title guarantees, deed platting, interpretation of property descriptions, riparian rights and establishment of property lines will be discussed. Also covered will be the surveyor's rights, duties and liabilities; the state of Ohio survey laws; and minimum standards for boundary determination, description writing and map preparation. The historical development of the rectangular system of land subdivision will be covered, with primary emphasis placed on Ohio, as it is the site of the first public land surveys.

CET232
LAND PLANNING & DESIGN **3** **5**
Pre-Req CET122, CET124, DET125, CET227

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 site in accordance with zoning and subdivision regulations.

CET233
ARCHITECTURAL DESIGN **3** **5**
Pre-Req CET121, CET123

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	Contact Hours

CET234
A/E CAD 2 **2** **4**
Pre-Req CET121, CET122, DET125

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.

CET235
PROJECT ADMINISTRATION **3** **3**
Pre-Req CET121, ECA122

This course examines the progression of a building project from its inception to completion along with the administration of it in the office and in the field. Contract law and the legal implications of documents will be discussed. The student will also be familiarized with specifications, shop drawings and computerized project control software.

CET236
GLOBAL POSITIONING SYS **3** **4**
Pre-Req CET227

Introduction to Global Positioning System to determine location on earth in a three dimensional way (latitude, longitude and elevation). Students will practice the use of electronic receivers using radio signals to collect data and process later using computers. The use surveying and topography mapping is also included.

Chemistry

CHM101
INTRO TO CHEMISTRY **4** **4**
Pre-Req MTH101

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.

CHM121
GENERAL CHEMISTRY **4** **5**
Pre-Req CHM101

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	Contact Hours
CHM122		
ORGANIC & BIOLOGICAL CHM	**4**	**5**

Pre-Req CHM121

The course examines the structures, names, reactions and physical properties of the major groups of organic and biological compounds including alkanes, alkenes, alkynes, aromatics, alcohols, ethers, aldehydes, ketones, carboxylic acids and esters and biological compounds including carbohydrates 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.

Design Engineering Technology

DET121		
ENGINEERING DRAWING	**3**	**5**

This is a beginning drafting course that includes use of instruments, geometric constructions, technical lettering, orthographic projection, auxiliary views, sectional views, dimensioning and conventional practice.

DET122		
DESCRIPTIVE GEOMETRY	**3**	**5**

Pre-Req DET121

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.

DET124		
WORKING DRAWINGS	**3**	**5**

Pre-Req DET121, DET125

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.

DET125		
BASIC AUTOCAD	**3**	**5**

Pre-Req CET122, CET124, DET121, EET120

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.

	Credit Hours	Contact Hours
DET126		
CUSTOMIZING AUTOCAD	**3**	**4**

Pre-Req DET125

Building on concepts learned in Basic AutoCAD, this course begins with a review of the changes added in the last software update and then 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.

DET130		
BASIC UNIGRAPHICS	**3**	**4**

Pre-Req DET121

This course is an introduction to three-dimensional drawings using EDS-Unigraphics software. Course will focus on practical applications of design using the Unigraphics system to develop parametric solid model representations of parts and assemblies. Topics include: parametric modeling, expressions, assemblies, drafting, reference features, and explicit curve creation.

DET131		
BASIC PRO/ENGINEER	**3**	**4**

Pre-Req DET121

An introduction to three-dimensional drawings using Parametric Technology Corporation – Pro/ENGINEER software. Course will focus on practical applications of design to develop parametric solid model representations of parts and assemblies. Drafting techniques will also be covered. Prior experience with CAD is necessary for students entering this course.

DET132		
BASIC SOLIDWORKS	**3**	**4**

Pre-Req DET121

This course is designed to introduce the student to SolidWorks, a parametric feature-based solid modeling program. SolidWorks is used for the design of parts, assemblies and engineering drawings. The student will design actual mechanical components, and the areas of concentration include: basic program syntax, design intent, top down and bottom up design, and parametric relations. Many parts and assemblies will be developed. Engineering drawings will also be generated from the solid models.

DET223		
KINEMATICS	**3**	**5**

Pre-Req PHY121

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 | Contact Hours

DET226
GEOMETRIC DIM & TOL 2 3
Pre-Req DET124
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.

DET230
ADVANCED AUTOCAD 3 4
Pre-Req DET125
An introduction to three-dimensional drawings using AutoCAD, including wireframe, surface and solid modeling, 3D viewing commands to view the object from different viewing directions and object analysis (to find volume, mass, etc.). Prior experience with AutoCAD in the 2D drawing environment is necessary for students entering this course.

DET231
TOOL DESIGN 3 5
Pre-Req DET124, DET125
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.

DET232
ADVANCED PRO/ENGINEER 3 4
Pre-Req DET131
Three dimensional drawing using Pro/ENGINEER advanced design features such as: top-down design: skeletons and layout models; advanced sketching, geometry, components, patterns, and surface options; creating and modifying models, dimensions, bill of materials, and features; and plotting.

DET233
ADVANCED UNIGRAPHICS 3 4
Pre-Req DET130
This course covers advanced methods of model design with emphasis on design intent and model modification associativity. Topics include: parametric design intent and model modification associativity. Topics include: parametric modeling, constraint-based modeling using sketcher, interpart expressions, assemblies, mating conditions, top-down and bottom-up modeling and part families.

Credit Hours | Contact Hours

DET234
ADVANCED SOLIDWORKS 3 4
Pre-Req DET132
This course is designed to build on the student's basic knowledge of Basic SolidWorks by introducing some of the more advanced features, commands, and functions found in the software.

Dental Hygiene

DHY121
HEAD, NECK & ORAL ANATOMY 2 3
Gross anatomy of the head and neck, tooth morphology and physiology of occlusion.

DHY122
ORAL HIST & EMBRYOLOGY 1 1
Embryological development and histologic characteristics of the orofacial organs and structures.

DHY123
DENTAL RADIOGRAPHY 3 5
Pre-Req DHY121
Fundamental knowledge of radiographic principles and safety considerations. Skill development in image production, processing, mounting techniques and radiographic interpretation.

DHY124
PERIODONTOLOGY I 1 1
Pre-Req DHY122
Etiology, diagnosis, and prevention of diseases affecting tissues that support, attach, and surround the teeth.

DHY125
DENTAL MATERIALS 3 5
Pre-Req DHY131
Fundamental knowledge of the dental materials commonly used in contemporary dental practice including their physical, chemical and manipulative characteristics and skill development in correctly using these materials.

DHY126
PATHOLOGY 2 3
Pre-Req DHY122
Concepts of developmental/growth disturbances; diseases of microbiological origin; injury and repair; metabolic and disease disturbances; and oral manifestations of diseases and conditions.

DHY131
FUND DENTAL HYGIENE PRAC 4 8
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. Concepts are applied in a preclinical setting with manikins and student partners.

Credit Hours | Contact Hours

DHY132
DENTAL HYGIENE THEORY I **2** **2**
Pre-Req DHY131, DHY133
Build 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.

DHY133 CLINICAL DENTAL HYG I **2** **6**
Pre-Req DHY123, DHY132, DHY131
Patient care experiences which reinforce fundamentals and which correlate with, and allow the application of, dental hygiene procedures and concepts presented in Dental Hygiene Theory I. Emphasis on application of basic skills and professionalism.

DHY134
CLINICAL DENTAL HYG IA **1** **3**
Pre-Req DHY133
Patient care experiences which allow further development of clinical skills and application of concepts. Emphasis on patient management and effective communications.

DHY221
NUTRITION DENTISTRY **1** **1**
Pre-Req DHY132
Basic concepts of nutrition and the effects on general as well as oral health. Emphasis on the role of nutrition in dentistry for disease prevention and health promotion.

DHY222
DENTAL PHARMACOLOGY **2** **2**
Pre-Req BIO221, DHY126
A study of therapeutic agents used in dentistry including indications, contraindications, methods of administration, side effects and drug interactions. Special emphasis on pain control strategies.

DHY223
COMMUNITY ORAL HEALTH **2** **3**
Pre-Req DHY134
Concepts of assessing, planning, implementing and evaluating oral health programs for community groups. Learning experiences emphasize reading scientific literature, understanding statistical reporting and relating to community health education agencies and programs in the practical application of the concepts. Field experiences are required.

DHY224
PERIODONTOLOGY II **1** **1**
Pre-Req DHY124
Advanced treatment modalities and current research in periodontal therapy.

Credit Hours | Contact Hours

DHY231
DENTAL HYGIENE THEORY II **2** **2**
Pre-Req DHY132, DHY232
Further exploration of treatment modalities and dental hygiene services such as dietary analysis and counseling, oral hygiene indices, and tobacco use and cessation education. Focus on the development of more complex dental hygiene treatment plans.

DHY232
CLINICAL DENTAL HYG II **4** **12**
Pre-Req DHY134
Patient care experiences which refine fundamentals and 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.

DHY233
DENTAL HYGIENE THEO III **2** **2**
Pre-Req DHY231, DHY234
Further exploration of treatment modalities and adjunct procedures. Focus on transitions to practice, including principles of office management, jurisprudence and current issues in dental hygiene.

DHY234
CLINICAL DENTAL HYG III **5** **15**
Pre-Req DHY232
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.

Computer Science and Engineering Technology

ECA122
COMPUTER APPL FOR TECH PROF **3** **4**
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.

ECA123
ENG COMPUTER/FORTRAN **3** **4**
Pre-Req ECA127
The basic skills and techniques required in Fortran 77 programming are presented, with emphasis on the use of the computer for problem-solving. Lab exercises are engineering-related problems utilizing scientific problem-solving techniques. Course surveys software application packages available for mathematical computations.

Credit Hours | Contact Hours

ECA124
ENG COMPUTER IN PASCAL 3 4
Pre-Req ECA127
Basic skills and techniques required for Pascal programming are presented, with emphasis on the use of the computer for problem-solving. The lab exercises are engineering-related problems utilizing scientific problem-solving techniques. Course includes a survey of available software packages used to analyze mathematical equations.

ECA127
PROGRAMMING LOGIC & PROB SOLV 3 4
This course addresses the student to program logic and problem solving techniques. Primary emphasis is on achieving familiarity with structured programming principles through awareness and application of structured programming and object-oriented concepts and techniques. Upon course completion, the student should have an understanding of how to develop the logic to solve a programming solution using structured flowcharts and psuedocode.

ECA128
VISUAL BASIC PROGRAMMING 3 4
Pre-Req ECA127
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 MCSD test 70-306: Developing and Implementing Windows-based Applications with 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.

ECA129
CRYPTOGRAPHY 3 4
Pre-Req MTH121, ECA127
Communication techniques over nonsecure channels are presented. Mathematics and computer science concepts are used to design and program encryption/decryption systems. Kerchoff's Principle for modern crytography is stressed. Through a set of hands-on exercises, the student will become familiar with symmetic key and public key encryption/decryption methods.

ECA130
SOFTWARE VULNERABILITIES 3 4
Pre-Req ECA127, EET131, EET141
Enumeration, exploits, keygens and other application vulnerabilites are presented. Security holes and exploitations in computer, interpreted and web based applications are addressed in a hands-on environment.

Credit Hours | Contact Hours

ECA131
MS WINDOWS 2000 PROFESSIONAL 3 4
Pre-Req EET131, EET141
Course includes installing and administering the Windows 2000 professional operating system. It also covers security issues, networking protocols, and the delegation of administrative responsibilities via remote desktop procedures.

ECA132
HELP DESK CONCEPTS 3 4
This course provides the student with essential topics covering help desk operations, roles and responsibilities of the analysts, help desk processes and procedures, tools and technologies, performance measures, and the help desk setting itself. There are numerous hands-on projects to practice implementing help desk concepts in a real world situation.

ECA133
COMPUTER USER SUPPORT 3 4
This course addresses topics that help-desk analysts will use on a daily basis. Course includes computer user support, customer service skills, troubleshooting skills, common support problems, help desk operations, and support management.

ECA222
INTRO TO C++ PROGRAMMING 3 4
Pre-Req ECA127
Focuses on computer concepts, control structures, functions, arrays, pointers and strings found in C++. 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.

ECA223
JAVA PROGRAMMING 3 4
Pre-Req ECA127
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.

ECA224
SFTWRE ENG DESIGN & DEV W/COM 3 4
Pre-Req ECA222
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 | Contact Hours

ECA225
APP INTERACTIVE SFTWRE DEV 3 4
Pre-Req ECA228
Students are taken to the next level in web design, developing interactive web sites using JavaScript. Various assignments enhance the student's ability in JavaScript, including interaction with browser, regular expressions and form validation.

ECA226
VISUAL C++ – THE FOUNDATION CLS 3 4
Pre-Req ECA222
A Windows programming course using object-oriented design and programming methods. The student will learn how to interface with the Microsoft development environment to design and develop Windows-based programs utilizing the Microsoft Foundation Classes. Topics include WIN-32 API, App Wizard and application development. A collection of hands-on labs help to develop proper software engineering skills in a technical setting.

ECA227
ASSEMBLY LANGUAGE 3 4
Pre-Req ECA222
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.

ECA228
INTERNET/INTRANET DES & DEV 3 4
Upon completion of this course, the student will be able to develop a basic Internet/Intranet web site. Students learn the basics of web design and client side mark up languages including HTML, CSS, XHTML, and XML.

ECA229
MICROSOFT SERVER SIDE SCRIPTIN 3 4
Pre-Req ECA228
This course covers server side programming with ASP/ASP.Net. Students will learn to connect to a database, add, update, and delete from the database, creating session and application variables, converting database data into XML and back, code behinds, and assemblies with an introduction to web services.

ECA230
DATABASE DES/INTERFACE 3 4
Pre-Req ECA223
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 | Contact Hours

ECA233
ANALYZING SFTWRE REQ & DEV SOL 3 5
Presents the System Development Life Cycle methodology to investigate, analyze, design and implement a computer software solution to a simulated or actual real-world business problem. Students working in small groups will perform the Preliminary Investigation for a systems request, perform fact finding to create the System Requirements Document, use logical modeling tools (DFD,Flowchart,Decision Tables), use input and output design principles, and Application Development tools. Student will be required to present and demonstrate their completed and functional Systems Project.

Pre-Requisite: Completion of two software development language courses.

ECA234 CFML TOOLS & DESIGN 3 4
Pre-Req ECA228
This course focuses on using Cold Fusion to develop an online store. The student learns database connectivity, file handling, code reuse, HTML interaction, email, error handling and connecting to web services with Cold Fusion Components.

ECA236
OPEN SOURCE SERVER SIDE SCRIPT 3 4
Pre-Req ECA228
Students learn to develop server side scripts with PHP including developing various web applications and connecting to a MySQL database. Course also covers development and design of the MySQL database.

ECA237
ADVANCED WEB SERVICES WITH C# 3 4
Pre-Req ECA229
Students gain a deeper understanding of advanced web services using C#.Net. Course enlightens the student on the difference in C# syntax and ASP.Net and focuses on developing and implementing advanced web services in C# and SOAP. How to find web services on the web and connect to them is also explained.

ECA238
ADVANCED VISUAL BASIC PROGRAM 3 4
Pre-Req ECA128
Addresses ADO.Net object model and developing data-bound Windows forms and Web forms. This course helps to prepare for MCSD exam 70-306: Developing and Implementing Windows-based Applications with Microsoft Visual Basic.Net. Upon completing this course, the student should be able to create applications utilizing data connections, datasets, and datatables.

	Credit Hours	Contact Hours

ECA239
ADV JAVA PR for SFTWRE ENG APP **3** **4**
Pre-Req ECA223
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.

ECA240
GAME PROGRAMMING FOR DEVICES **3** **4**
Pre-Req IMT224
The student is able to develop, create and distribute game programs to be used in atypical environments. These devices include PDA's and home gaming systems.

ECA241
ADVANCED GAME PROGRAMMING **3** **4**
Pre-Req IMT224
This course focus on 3D game programming. The student will learn the essentials of 3D game programming, including basic algorithms, texture mapping basics, 3D math, lighting, use of depth buffers, etc.

ECA242
INSTRUCTIONAL DEV W/AUTHORWARE **3** **4**
Pre-Req IMT126
This course will focus on design and development of computer based and web based training using Flash and Authorware. Design, layout, script writing, flow, testing and usability will be covered.

ECA243
INSTRUCTIONAL ILLUSTRATIONS **3** **4**
Pre-Req IMT122
Students will learn how to develop basic illustrations and line art using Adobe Illustrator. Labs focus on drawing computer devices, industrial devices and medical illustrations.

ECA244
MS WINDOWS 2000 SER & NTW INFR **3** **4**
Pre-Req ECA131
This course includes the installation of the Windows 2000 server operating system and the setup of Directory Services on a domain created by the student. Additional topics include: domain administration, network troubleshooting, remote installations, and lowering the total costs of ownership of a Windows 2000 networked environment.

	Credit Hours	Contact Hours

ECA245
DES WIN 2000 NTWK INFR & SEC **3** **4**
Pre-Req ECA244
Course includes both the designing of a Windows 2000 network and the security revolving around it. This course takes the standpoint of a network designer that is contracted to design an entire network infrastructure for a company; from analyzing the costs, security issues, hardware, software, licensing issues, man-power needed to complete/maintain the installation, and then actually create the design in Visio for a formal presentation.

ECA246
ADM, IMPL & DES DIRECTORY SERV **3** **4**
Pre-Req ECA244
Course thoroughly covers both the logical and physical structures of Active Directory. Some of the topics covered and accomplished during lecture time and lab time are the installation of Active Directory, DNS, and DHCP. Students create and maintain user accounts and group policies on their own domains. Visio will be used to design an organization's Active Directory, both logical and physical, for presentations.

ECA247
WEB SERVER SCRIPTING **3** **4**
Pre-Req ECA228
Students learn the Purl language and CGI scripting to interface web sites with e-mail, flat file databases, and ODBC databases. Upon completion of the course, students should be familiar with different approaches for creating web pages that interact with a relational database.

ECA248
CITRIX METAFRAME **3** **4**
Pre-Req ECA244
This course provides the necessary foundation to utilize Citrix Metairie products. It will cover the installation and administration of Citrix Metairie and Citrix ICA clients in a variety of network environments. Topics will include using the Citrix Management Console, managing licensing and administering Metairie servers.

Early Childhood Education

ECE121
INTRO EARLY CHILDHOOD ED **3** **3**
Pre-Req ENG101
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 observations hours are required.

	Credit Hours	Contact Hours

ECE122
CURRICULUM DESIGN & INST **3** **3**
Pre-Req ECE121

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.

ECE123
HEALTH & NUTRITION **3** **3**

An examination of health and nutritional needs, issues, practices and state licensing as it relates to early childhood programs. Stress management, environmental design and working with children with special needs are addressed. Five observations hours required.

ECE124
INFANT TODDLER CURRICULUM **2** **2**
Pre-Req PSY125

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.

ECE221
LANGUAGE ARTS **3** **3**
Pre-Req ECE122

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.

ECE222
CREATIVE MAT/GUIDE PLAY **3** **3**
Pre-Req ECE122

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	Contact Hours

ECE223
COMMUNITY & FAM BASED PR **3** **3**
Pre-Req ECE121

An examination of community and family-based early childhood programs: Head Start, Even Start and public/ special needs preschool. Adherence to mandates/ guidelines, population served, socioeconomic trends and factors, and how these programs differ from others are studied. Family relations and parenting skills, emphasizing family involvement and empowering parents are studied and related to use in community/family programs. Five field observation hours required.

ECE224
EARLY CHILDHOOD PROG ADM **3** **3**
Pre-Req ECE121

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.

ECE225
THE EXCEPTIONAL CHILD **3** **3**
Pre-Req ECE221, ECE222

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.

ECE226
WRAP-AROUND PROGRAMS **2** **2**
Pre-Req ECE121

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.

ECE227
PRACTICUM **3** **15**
Pre-Req ECE222

A 210-hour, supervised experience working in the early childhood education/caregiving setting. Open only to early childhood education majors. Weekly seminar participation required.

ECE228
PHONICS FOR YOUNG CHILDREN **3** **3**
Pre-Req ECE221

Explores the theory and role of phonics and phonemics awareness as well as current research regarding phonics instruction. Five observation hours are required.

Electrical/Electronic Engineering Technology

EET120
DC CIRCUIT ANALYSIS **4** **5**
Pre-Req MTH121
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.

EET122
AC CIRCUIT ANALYSIS **4** **5**
Pre-Req EET120
Alternating current (AC) circuit analysis and instrumentation. Topics include: phasor analysis, network theorems, power, resonance, pulse analysis, transformers and instrumentation.

EET123
ELECTRONIC DEVICES & CIRCUITS **4** **5**
Co-Req EET122
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.

EET125
CIRCUITS MANUFAC TECHNIQUES **1** **2**
Pre-Req EET120
Safety in the shop. Electrical and mechanical shop practice including use of hand tools, soldering techniques, solderless terminations, wire preparations, wiring techniques and parts ordering.

EET126
ELECTRICAL MACHINES **4** **5**
Pre-Req EET120
Co-Req EET122
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.

EET128
NEC & ELECTRICAL SYS DES **2** **3**
Pre-Req EET122
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 size, selection of circuit over-current protection, grounding, lighting design, transformer connections (both single and three-phrase), short circuit analysis, and other related subject material. Students are introduced to power factor correction, power quality, stand-by generation, various illumination sources and starting circuits.

EET129 OPTICS **2** **3**
Pre-Req EET120, PHY121, PHY101
This course is complementary physics for student 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.

EET131
PC UPGRADING & MAINTENANCE **3** **4**
The student will be working with various operating systems such as DOS, Windows 98, 2000 and XP. Student will also have hands-on experience building and repairing PC's in a lab environment. Hardware topics include: system board, microprocessors, busses, memory, disk drives, and power supplies.

EET141
INTRO TO COMPUTER NETWORKING **3** **4**
Fundamentals of networking, which includes sharing computer resources, protocols, cables and adapters, E-mail, network inter-operability and management is covered. Various network products are described and compared.

EET142
LIGHT DES, APP & ELECL ELEM I **2** **4**
Develop the skills to design and apply functional and practical lighting systems for industrial and commercial properties. The topics covered include the physical nature of light, color, and sight behavior; an understanding coverage of light sources, and application techniques using fixtures, along with the electrical elements necessary for design and controlling of today and tomorrow's illuminations systems.

EET225
DIGITAL COMM & SYS ANALY **3** **6**
Pre-Req EET248, EET262
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).

EET226
TRANSMISSION & DISTRIBUTION **3** **4**
Pre-Req EET126
This course encompasses power transmissions and distribution systems, components and analysis. Field trips to appropriate sites comprise the laboratory requirement.

Credit Hours | Contact Hours

EET227
INDUSTRIAL CONTROLS I **3** **4**
Pre-Req EET120, EET126

A presentation of basic 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.

EET228
INDUSTRIAL CONTROLS II **3** **4**
Pre-Req EET227

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.

EET230
ELECTRONIC CIRCUITS I **3** **4**
Pre-Req EET123

A study of field effect transistors, h-parameters, device equivalent circuits, small signal analysis, multistage amplification, decibels, frequency response and large signal amplifiers.

EET231
ELECTRONIC CIRCUITS II **3** **4**
Pre-Req EET230

A study of power amplifier design, heat sinking, differential amplifiers, operational amplifiers, IC fundamentals, feedback and oscillator circuits.

EET232
INDUSTRIAL ELECTRONICS **3** **4**
Pre-Req EET123

The course consists of industrial control circuits, such as ladder logic, discrete programmable logic, single phrase control, three phrase rectification and electronic motor speed control with supporting laboratory exercises.

EET233
TECH PROJECT ELECTRICAL **1** **2**

A course designed to allow the student to demonstrate capabilities acquired during previous course work in the electrical program. The student will choose an approved project compatible with interest and background. The project may be in the area of controls, machine building, electrical design, or power generation and transmission. The scope will be determined by the project, but in general, will include research, testing, drawing, actual construction, a report and presentation.

Credit Hours | Contact Hours

EET235
TECH PROJECT ELECTRONIC **1** **2**

Designed to allow the student to exercise the capabilities developed in the electronic engineering technology program. The student will choose an approved project compatible with interest and background. Project may be a design, test or microcomputer-based project. During the project, performance will be verified at given intervals with suitable test procedures.

EET242 MS SQL SERVER ADMIN **3** **4**
Pre-Req EET252, ECA131

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 Database Administration perspective. Upon completion, the student will have attained at least a basic administration skill level with SQL Server database.

EET244
ELECC TELECOMMUNICATIONS **3** **4**
Pre-Req EET262

A course dealing with telecommunications hardware and software. Both wired and wireless topics are covered, along with the software used to implement such systems.

EET245
TECH PROJ-ELECC TELECOM **3** **5**

A course designed to allow the student to use the capabilities developed in the telecommunications program courses to carry a project from concept to completion.

EET246
TECH PROJ - COMP NETWKG **3** **5**

A course designed to allow the student to use the capabilities developed in the networking program courses to carry a project from concept to completion.

EET248
WORKSTATION INTERFACING **3** **5**
Pre-Req EET123, EET262

A study of digital circuitry and current operating systems for port management and personal computer bus architecture. The course includes digital and analog interfacing using serial, parallel ports, and various current interface ports.

EET250
UNIX/LINUX SYSTEM ADMIN **3** **4**
Pre-Req EET257, ECA221

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 ethics, process control, file systems, log files. During the lab, the student will install Linux on a personal harddrive and be administrator of their personal system. Students will add users, schedule cron jobs, add filesystems to their system.

Credit Hours | Contact Hours

EET251
UNIX/LINUX NETWORK ADMINISTRAT 3 4
Pre-Req EET257, ECA221
This course addresses administration and configuration of network server software found on the Unix and/or Linux operating systems. Server topics include: OpensSH, HTTPd, named, routed, sendmail, postfix, etc. Security topics include: PAM, Kerberos, tripwire, tiger, etc. Students will install a Linux server on their personal harddrives, setup various types of network servers. Many labs will require students to work together to test each other's server configurations.

EET257
UNIX/LINUX OPERATING ENVIR 3 4
Pre-Req ECA122, CAP120, CAP124
This course covers working at the Unix/Linux shell command line, customizing the shell environment, understanding basic filesystem structure and permissions, file management tools, basic shell scripting techniques, vi text editor, data processing tools, Xserver windows, remote machine access using ssh&ftp, compiling C programs under Unix, and formation of makefiles and the make command.

EET258
DTA ENCRYPTION & FIREWALL TECH 3 4
Pre-Req ECA244, EET252
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.

EET259
WEB SERVER ADMINISTRATION 3 4
Pre-Req EET252, EET257, ECA221, ECA244
This course provides the essentials for designing, configuring and implementing Web Servers. The focus will be on the Apache Web Server, IIS and other related web server technology.

EET260
COMPUTER FORENSICS 3 4
Pre-Req ECA127, EET131, CAP121
Computer crime, programming in the network monitoring platform, trap and trace techniques and patch level enumeration will be the focus of this course. Detailed descriptions and technology related to response team are presented.

EET261
ADVANCED SECURITY TECHNIQUES 3 5
Pre-Req EET131, EET141, ECA129, ECA130
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 | Contact Hours

EET262
PULSE & DIGITAL INTEGRATED CIR 4 5
Pre-Req EET123
This course is a study of pulse, transistor, and integrated switching circuits. It includes basic logic gates as well as large-scale integrated circuits such as counters, registers, encoders, decoders, multiplexers, demultiplexers, ALUs, ADC and DAC. The use of hardware minimization techniques using PLDs, FGPAs, and PROMs is also discussed.

English

ENG101
INTRODUCTION TO WRITING 3 3
Pre-Req CAL105
An introductory writing course stressing effective essay composition skills (e.g. essay structure and development and editing and revision skills) while applying the basic rules of grammar and mechanics.

ENG102
READING FOR CRITICAL ANALYSIS 3 3
Pre-Req CAL101
Reading for Critical Analysis teaches critical comprehension and analysis of technical reading material. The course includes advanced application of critical reading and thinking skills.

ENG122
COMMUNICATION THEORY 3 3
Examines the process of communication and general semantics. Propaganda techniques and their abuses are explored, along with logical thinking methods. Application of communication principles in a problem-solving exercise emphasizes win/win solutions.

ENG123
BUSINESS COMMUNICATION 3 3
Pre-Req ENG124
Teaches application of various forms of business communication, such as letters, memos, resumes, instructions, abstracts/summaries and a simulated business presentation with emphasis on research, oral reports and graphics.

ENG124
COLLEGE COMPOSITION 3 3
Pre-Req ENG101
Students learn to write effective papers based on reading and discussing essays after a review of essay development and organization, grammar, and punctuation. Emphasis is on the process of prewriting, writing and revising to achieve clarity and development. A research report requires APA or MLA documentation.

ENG221
TECHNICAL REPORT WRITING 3 3
Pre-Req ENG124
Course stresses clarity, logic and appropriate organization in informal and formal technical reports. An oral presentation and/or a proposal may be required.

	Credit Hours	Contact Hours

ENG222
MED TECH REPORT WRITING **3** **3**
Pre-Req ENG124, HIT223
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 proposals.

ENG224
COMPOSITION & LITERATURE **3** **3**
Pre-Req ENG124
Includes literary selections from fiction, poetry and drama. Students read, discuss, analyze and write critical interpretations of representative works.

ENG226
MASTER STUDENT **3** **3**
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.

Environmental Health and Safety Technology

ENV121
REGULATIONS & COMPLIANCE **3** **3**
This course will review the history of the American environmental movement and will then look at the fundamental concepts of the environmental law and regulation system. Major environmental laws such as the Clean Water Act, Clean Air Act, SARA, NEPA, SUPERFUND, OSHA and RCRA will be reviewed. The primary focus of the class will be to meet the compliance and liability aspects of the various regulations.

ENV221
OSHA - 40 HR - HAZWOPER **2** **3**
(40 hour OSHA training) This course satisfies the requirements of OSHA Standard 1910.120. It is a health and safety training course required for all personnel who may work at a hazardous waste site. Topics to be covered include: hazardous materials chemistry, toxicology, air purifying respirators, self-contained breathing apparatus, protective clothing, site decontamination and response incidents. Safety certificate is awarded upon completion of this course.

ENV222
ENVIRONMENTAL SYSTEMS **3** **4**
Pre-Req CHM121, MTH121
This course will introduce the students to environmental control systems and practical applications of their operation and maintenance. Particular attention will be 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 will also be covered.

	Credit Hours	Contact Hours

ENV223
BASIC GEOLOGY/HYDROLOGY **3** **4**
Pre-Req MTH121
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.

ENV224
AIR SAMPLING-ANA & CONTR **3** **4**
Pre-Req CHM121, MTH222
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.

ENV225
SOLID & HAZ WASTE SMPLG **3** **5**
Pre-Req CHM122, ENV121, ENV221, MTH222
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.

ENV226
WATER SAMPLING,ANAL,CONT **3** **4**
Pre-Req CHM122, ENV223, MTH222
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.

ENV228
HEALTH AND SAFETY **3** **4**
Pre-Req ENV121
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. Students who successfully complete the course may receive 30-hr Occupational, Safety and Health card for General Industry

ENV230
OSHA 8-HR HAZWOPER REFRESHER **1** **1**
This course is required by OSHA regulation as an annual refresher for the materials covered in the OSHA 40-hour HAZWOPER class. Material to be reviewed include: hazardous material chemistry, toxicology, respiratory protection, protective clothing, site decontamination and response to incidents. A certificate is awarded upon completion of this course.

ENV236
ENV HLTH & SAFETY SPEC PROJECT **3** **4**
Pre-Req ECA122, ENV121, ENV221
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.

Electrical Maintenance Technology

EST129
SWITCHGEAR, TRANS, CONTROLS **2** **3**
Pre-Req EET120
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.

EST130
ELECTRICAL CIRCUITS/DEV **4** **5**
Pre-Req MTH101, MTH121
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.

EST221
ELECTRONIC TBLSHOOTING **3** **4**
Pre-Req EET120, EET262
Course covers generic troubleshooting procedures, including: electronic problems, system troubleshooting, live-circuit testing, DC troubleshooting, power supply repair, signal tracing, semiconductor in-circuit testing, testing live analog circuits, RF circuit troubleshooting, pulse circuit troubleshooting, digital test techniques, troubleshooting computer circuits, dead circuit testing, replacing failed components, preventive maintenance, and power and motor circuit troubleshooting.

Special Engineering Technology Courses

ETD121
ENGINEERING TECHNOLOGY SEMINAR **1** **2**
This course makes the student aware of the college, the division, and the engineering 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, interpersonal skills, and communication skills. 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.

ETD201
ENG INDEPENDENT STUDY **1** **10**
An independent study may be arranged through the Engineering Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Engineering Technology will determine course content, meeting schedules and credit hours.

ETD202
ENG INDEPENDENT STUDY **2** **20**
An independent study may be arranged through the Engineering Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Engineering Technology will determine course content, meeting schedules and credit hours.

ETD203
ENG INDEPENDENT STUDY **3** **30**
An independent study may be arranged through the Engineering Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Engineering Technology will determine course content, meeting schedules and credit hours.

ETD204
ENG INDEPENDENT STUDY **4** **40**
An independent study may be arranged through the Engineering Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Engineering Technology will determine course content, meeting schedules and credit hours.

ETD222
ENGINEERING CO-OP **2** **20**
Co-op opportunities are available to students enrolled in Engineering Technologies. Students may contact their faculty advisors or Career Services for more information.

ETD223
ENGINEERING CO-OP **3** **30**
Co-op opportunities are available to students enrolled in Engineering Technologies. Students may contact their faculty advisors or Career Services for more information.

ETD224
ENGINEERING CO-OP **4** **40**
Co-op opportunities are available to students enrolled in Engineering Technologies. Students may contact their faculty advisors or Career Services for more information.

Electric Power Utility Technology

EUT121
OVERHEAD LINE TECHNOLOGY I **6** **10**
Provides the knowledge and skill to perform work on secondary voltage circuits; understanding of the techniques used to install transmission support systems, transformers and install anchors safely and efficiently with concentration on the installation of services, street lighting and secondary circuits. Included are advanced training pertaining to the various transmission support system framing techniques and guying methods. An overview of transmission and distribution of electrical systems, Occupational Safety and Health Administration (OSHA) and rigging safety awareness requirements will be included in this course.

EUT122
OVERHEAD LINE TECHNOLOGY II **6** **10**
Pre-Req EUT121
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.

EUT123
SUBSTATION TECHNOLOGY I **6** **10**
Provides the knowledge and skills to perform maintenance in electrical substation and switchyards; understand and apply the proper techniques to operate power, powder and hydraulic actuated tools, as applied to conduit forming and cable tray layouts. Included is advanced training in the operation of substation ground maintenance vehicles; rigging and construction of substation and switchyard facilities. Occupational Safety and Health Administration (OSHA) and rigging safety awareness requirements will be included in this course.

EUT124
SUBSTATION TECHNOLOGY II **6** **10**
Provides the knowledge and skill to safely perform maintenance in electrical substation and switchyards; understand and apply the proper cable pulling/bus work techniques; installation of substation conductors/wire, switches and grounding techniques. Included is advanced electrical skills training, as applicable to the use and installation of batteries, fuses, transformers, regulators/reclosers, circuit breakers, and capacitors within the substation. The proper lockout/tagout techniques and principle will be included in this course.

EUT221
OVERHEAD LINE TECHNOLOGY III **6** **10**
Pre-Req EUT122
Provides the knowledge and skill to identify, install and maintain primary underground residential distribution (URD) equipment; knowledge pertaining to the different styles of sub-transmission support structures, with instruction on the techniques and proper use of hot-line tools to work sub-transmission & distribution structures when laying out conductors and changing various insulators; knowledge and skill to safely perform rubber gloving assignments using the insulate and isolate techniques. Various methods of troubleshooting URD primary and secondary circuits are discussed and demonstrated. Students will perform various tasks, while working on an energized three-phase circuit under controlled conditions. Applicable safety requirements will be taught and stressed throughout the course of instruction.

EUT222
OVERHEAD LINE TECH IV **7** **12**
Pre-Req EUT221
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	Contact Hours

EUT223
ELECTRIC POWER TRANS & DISTRB **3** **2**
Pre-Req EET120

The course encompasses power transmission and distribution systems, components and analysis. Field trips to appropriate sites are utilized to fulfill systems, components, analysis and fulfill the laboratory requirements.

Financial Services Technology

FIN122
PRINCIPLES OF FINANCE **4** **4**
Pre-Req ACC12, ACC132, ACC127

This is an exit-level course designed for Accounting and Finance majors. Topics include 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.

FIN123
FUND FINANCIAL SERVICES **3** **4**
Pre-Req ENG102

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) an individual developing and implementing their own long-range plan. Specific topics include understanding the financial planning process, ethical and professional considerations in financial services, and introductions to the fundamentals of credit, insurance, investments, and retirement and estate planning. Upon successful completion of this course, the student should understand the fundamental concepts of personal financial planning.

FIN221
INVESTMENT & SECURITIES **4** **4**
Pre-Req ACC122 or ACC132

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, make trades and review and analyze their account activities.

	Credit Hours	Contact Hours

FIN222
RETIREMENT PLAN/EMPLOYEE **3** **4**
Pre-Req ACC122, ACC132

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.

FIN223
ESTATE & INCOME TAX PLAN **3** **4**
Pre-Req ACC124

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.

FIN224
INSURANCE PLANNING **3** **4**
Pre-Req FIN123

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 loss due to natural catastrophes and disasters. Upon completion, the student should be able to select the most appropriate insurance program for themselves and their families.

FIN225
FIN SERVICES CASES/PRACT **3** **4**
Pre-Req FIN221, FIN224
Co-Req FIN222, FIN223

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.

Fire Science Technology

	Credit Hours	Contact Hours

FST121
INTRO TO FIRE SCIENCE 2 2
A study of the organizational procedures of the fire science service including the structure and function of battalion and company as components of municipal organizations and basic fire tactics. Discussion topics include the basic history of fire science, career options, personnel management and training, fire equipment and apparatus, communication, terminology, records and reports, insurance rating systems and the law as it pertains to the fire service.

FST122
FIRE HYDRAULICS 3 3
A study of basic hydraulic theory making use of basic laws of mathematics. Covers drafting of water, velocity and discharge, friction loss, engine and nozzle pressure, fire streams, pressure losses, municipal and industrial water supplies, stand pipes and sprinklers, flow and pump testing and applications in fire science.

FST123
FIRE DETECTION & SUP SYS 3 3
The design and operation of basic protection systems. Includes water distribution, detection, alarm and watchman services, protection systems for special hazards, a detailed examination of carbon dioxide, dry chemical, foam and water spray systems.

FST124
FIRE PREVENT & SAFETY CD 3 3
The study of inspection techniques and procedures along with the history and development of codes. Emphasis is placed on the nature and scope of legal statutes and related codes in fire prevention control. How to perform building inspections, set up a fire prevention bureau including duties and suggested guidelines on a local, state, and national scope. Recognition and correction of fire hazards, public relations and enforcement of codes.

FST125
BLDG CONSTRUCT FOR FIRE 2 2
The study of fundamentals of building construction as related to fire protection, codes, laws, hazards and fire ratings. Design and materials as applied to fire resistance.

FST126
ENVIRONMENTAL SCIENCE 3 3
This course focuses on water and air pollution, heat, energy, pesticides and plastics. Helps the firefighter better understand the danger posed by chemicals encountered in fighting fires. Explains dangers of new chemicals and materials in today's changing world.

Credit Hours Contact Hours

FST127
EMERGENCY MEDICAL TECH 5 8
This intense course covers all emergency medical techniques under the new 1994 U.S.D.O.T. curriculum approved by the Ohio E.M.S. Board to be within the responsibilities of the EMT-B providing emergency care with an ambulance service. The course consists of 120 hours of classroom instruction and 20 hours of clinical experience in a hospital emergency room. This course meets the requirements established by the U.S.D.O.T. for the 1994 EMT-Basic Standard Curriculum.

FST221
COMMAND TACTICS & STRAT 3 3
Techniques and procedures of firefighting are studied, with emphasis on the firefighter's role as an individual and as a member of a firefighting team. Included are the methods of extinguishing fires, rescue procedures, salvage and prevention of rekindling. Group and command operations include pre-planning of firefighting operations, size-up, employment of personnel and equipment, and postmortem.

FST222
MANAGEMENT IN FIRE 3 3
Focus is on the universal concepts and principles of modern management theory within the framework of a fire service environment. Overview of the fire service officer's need for self-development in the face of increasingly complex functions, and challenges the fire officer faces. An exploration of organizational principles with emphasis on fire department organization including a study of the history, types, methods and principles of department organization, both formal and informal, line and staff. Special emphasis will be placed on supervisory responsibilities, functions and skills.

FST223
FIRE INVESTIGATIONS MTHD 3 3
An analysis of the principles of fire investigation, arson laws, interrogation of witnesses, applications of photography and preservation of evidence. Preparation of reports and adjustments of insured losses will also be included. Arson will be discussed including the nature of fire, point of origin, development of evidence, interview techniques, motives and court testimony.

FST224
LGL ASPECTS OF FIRE SERV 2 2
The focus of this course is on the legal rights, duties, liability concerns and responsibilities of the fire department while carrying out its function. Courtroom presentations, procedures and case studies will be included.

	Credit Hours	Contact Hours

FST225
HAZARDOUS MATERIALS **3** **3**
In-depth study of chemical characteristics and reactions related to the storage, transportation, and handling of hazardous materials such as flammable liquids, combustible solids, oxidizing and corrosive materials, and radioactive compounds. Emphasis will be placed on emergency situations, firefighting and control. The study of health hazards will also be included.

FST226
LINE OFFICER LEADERSHIP **3** **3**
Broad management theory and application of basic strategy and tactics for company officers is the focus of this course.

FST227
PER TRAINING & PUBL REL **2** **2**
An introduction to methods of instruction, applications of audiovisual equipment, testing and evaluation, preparation of materials and lesson plans with an emphasis on organizational training and program planning. This includes the building of goodwill, handling complaints and follow-ups, personal contacts, publicity and promotional efforts.

Special Courses in General Studies/Public Services Technologies

GSD201
GEN INDEPENDENT STUDY **1** **10**
An independent study may be arranged through the General Studies/Public Service Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for General Studies/Public Service Technologies will determine course content, meeting schedules and credit hours.

GSD202
GEN INDEPENDENT STUDY **2** **20**
An independent study may be arranged through the General Studies/Public Service Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for General Studies/Public Service Technologies will determine course content, meeting schedules and credit hours.

GSD203
GEN INDEPENDENT STUDY **3** **30**
An independent study may be arranged through the General Studies/Public Service Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for General Studies/Public Service Technologies will determine course content, meeting schedules and credit hours.

	Credit Hours	Contact Hours

GSD204
GEN INDEPENDENT STUDY **4** **40**
An independent study may be arranged through the General Studies/Public Service Technologies Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for General Studies/Public Service Technologies will determine course content, meeting schedules and credit hours.

GSD221
SPECIAL TOPICS **1** **1**

GSD222
SPECIAL TOPICS **2** **2**

GSD223
SPECIAL TOPICS **3** **3**

GSD224
SPECIAL TOPICS **4** **4**

Health Information Technology

HIT121
INTRO TO HEALTH INFO TEC **4** **6**
The structure of health care in the United States and an outline of its providers; structure and function of the American Health Information Management Association (AHIMA); accrediting, licensing and certifying in health care; structure and functions of the medical records department; government participation in health care including prospective payment; compilation of medical information throughout the patient's course of treatment in the health care facility, culminating in a complete health record filed in the medical record department; computerized and manual physicians' record-keeping systems; numbering and filing systems; master patient index; record retention; and storage.

HIT122
ANCILLARY HEALTH RECORDS AND REGISTRIES **3** **4**
Pre-Req HIT121
Structure and function of non-acute care facilities; the medical record professional's function in such facilities; development of ancillary health records; accrediting, licensing and surveying requirements; and trends related to ancillary health facilities. Overview of health registries with emphasis on cancer registry. Students will be spending observation time in the medical record department of an ancillary care facility.

	Credit Hours	Contact Hours

HIT123
MEDICOLEGAL ASPECTS **2** **2**
Pre-Req HIT121

Legal aspects of medical record practice; overview of judicial system and processes; importance of medical record as a legal document and the effect of confidentiality on release of medical information; practice in the release of information function; record retention and destruction of records are studied; current legal issues, ethics and laws are discussed.

HIT124
INTRODUCTION TO CODING **4** **6**
Pre-Req BIO122, BIO123, HIT121
Co-Req BIO124

Structure of the ICD-9-CM coding system and its application; practice in coding diagnoses and procedures; study of various nomenclature and classification systems used in the health care field.

HIT221
ADVANCED CODING **3** **4**
Pre-Req BIO222, HIT124

Structure of CPT-4/HCPCS coding system and its applications.

HIT222
STATS/DATA RETRIEVAL **3** **4**
Pre-Req HIT122, HIT123, HIT124
CoReq HIT224

Vital and public health statistics relating to health record practice; health care facility statistics and statistical reports, including sources and uses of data; data retrieval of clinical information; data display; indexes and registers; abstracting of health information.

HIT223
HIT MANAGEMENT **3** **3**
Pre-Req HIT222, HIT224
Co-Req ENG222

Introduction to the principles of management and the role of the supervisor in management; study of management functions, particularly as they relate to the medical records department; supervisor's role in coordinating goals of the individual, department and organization; study of practical problems in supervision.

HIT224
HLTHCARE QUALITY IMPROVE **2** **2**
Pre-Req HIT122, HIT123, HIT124
Co-Req HIT222

Quality assessment of both departmental functions and medical care; quality improvement as a facility-wide process; utilization review; risk management; and total quality management.

	Credit Hours	Contact Hours

HIT226 PROFESSIONAL PR I/SEM I **4** **9**

Enables the student to practice technical skills in the following areas: number control; filing and retrieval of master patient index information and patient records; chart assembly and analysis; microfilming; basic ICD-9-CM and CPT-4 coding; and medicolegal and correspondence procedures.

HIT227
PROFESSIONAL PR II/SEMII **4** **9**

Enables the student to practice technical skills in the following areas: ICD-9-CM and CPT-4 coding and DRG assignment; abstracting; indexes, registers and data retrieval; quality assurance, utilization review and risk management. The student reviews job descriptions and job procedures from a supervisory standpoint.

HIT228 CODING FOR REIMBURSEMENT **4** **6**
Pre-Req HIT124

This course includes validation of coded clinical information, DRG assignment, APCs, RBRVS and case mix/severity of illness data. Reimbursement methodologies applicable to all health care settings are addressed. Topics include: practice of previously learned principles of coding systems; prospective payment issues; peer review organizations; case mix analysis and indices; third party payers; billing and insurance procedures as they relate to health information management; managed care/capitation; and data quality.

HIT229 INFO SYS IN HEALTHCARE **3** **4**
Pre-Req CAP120, HIT222, HIT224

This course presents concepts of computer technology and the tools/techniques for using application software in the health care delivery system. Topics covered include computer concepts (hardware, software); data; information; telecommunications; networks; microcomputer applications; data integrity; image processing; data security; and health information systems.

HIT230
HLTH CARE DELIVERY IN THE US **2** **2**

This course focuses on the structure and process of health care in the United States. Topics include the historical development of the health care delivery system; types of facilities, services, agencies and personnel that constitute the system, critical policy and regulatory issues the system confronts; health care financing and reimbursement; and the role of government in health care.

HIT231
CODING PROF PRACTICE EXP/SEMIN **2** **6**
Pre-Req HIT124

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.

Human Service Development Institute

HST223
INFORMATION & TIME MGT SKILLS **2** **2**
The focus of this course is on key methods of reducing information overload; developing self-knowledge as a method of understanding control and irrational beliefs; learning how to better control your time and set priorities; methods and techniques of organizing time and materials.

HST224
PRAC INFO MANAGEMENT **1** **5**

HST225
ELIGIBILITY DETERMINATION **2** **2**
Eligibility Determination for OWF, Food Stamps, CFC Medicaid, and DA, is designed to provide a review of the basic eligibility determination processes used in the OWF, Food Stamps, CFC Medicaid and DA programs in Ohio. It is designed to give Job and Family Services workers in county agencies a better understanding of how eligibility for these programs is related and determined.

HST226
PRACTICUM ELIGIBILITY **1** **5**

HST227
SUPPLEMENTAL WRITING SKILLS **1** **1**
This course is designed to sharpen and refined writing skills needed by human service caseworkers. Basic grammar and paragraph writing will be reviewed. Students will practice writing skills in the areas of correspondence, case dictation and hearing reports.

HST228
INTRO TO CHILD SUPPORT **2** **2**
This course will provide general knowledge related to child support enforcement systems and functions. Included are the legislative history of child support at the federal and state levels, development and implementation of policy at the state level, use of the Child Support Enforcement Agency, IV-A/IV-D interface, and the role of public information in child support enforcement. Participants will learn through presentation of information and practice of skills.

HST229
PRAC INTRO TO CHILD SUPP **1** **5**

HST230
ESTABLISHMENT IN CHILD SUPPORT **2** **2**
This course provides techniques and procedures associated with the interface between the caseworker and the recipient in Child Support Enforcement. Participants will explore considerations and practice skills related to personal factors of the recipient, the need for confidentiality, negotiation techniques, communication factors, eligibility factors for other federal public assistance programs, and manage time and information related to the recipient's case. Participants will learn through the presentation of information and practice of skills.

HST231
PRAC ESTABLISH IN CHILD SUPPORT **1** **1**
Pre-Req HST230
Student will practice techniques related to the Establishment in Child Support course. They will apply skills learned during class instructions directly to their practicum. Prerequisite: Must be taken in conjunction with or upon completion of HST230.

HST235
MOTIVATING & IMPROVE PER **2** **2**
This course provides supervisors in the public sector with information, skills and techniques for factors that affect their employee's job performance. Topics included are morale and motivation factors, an understanding of personality styles, special considerations for supervising employees of diverse backgrounds, management styles, coaching and training techniques and handling employee difficulties. Students will learn theoretical information and practical applications, particularly in the context of public sector supervision. Participants will learn through both presentation of information and practice of skills.

HST236
PRAC MOTIVATING & IMP PERSNL **1** **1**
Pre-Req HST235
Students will practice techniques related to the Motivating and Improving Agency Personnel course. They will apply skills learned during class instructions directly to their practicum. Prerequisite: Must be taken in conjunction with or upon completion of HST235.

HST237
MNG PRIOR TIME & INFO **2** **2**
This course provides supervisors in the public sector with information and skills needed to effectively prioritize and manage their time and information. Through group presentation and activities, participants will develop abilities to handle job responsibilities with greater efficiency and effectiveness. Participants will learn through presentation of information and practice of skills.

HST238
PRAC MNG PRIOR TIME & INFO **1** **1**
Pre-Req HST237
Students will practice techniques related to the Management/Prioritize Time & Information course. They will apply skills learned during class instructions directly to their practicum. Prerequisite: Must be taken with or upon completion of HST237.

HST239
COMMUNICATION SKILLS SUP **2** **2**
This course provides supervisors with an overview of key communication considerations needed to supervise. Included are both general approaches and specific practical applications for implementing effective communications in their work at the agency. Among the topics addressed will be: giving instructions, conducting meetings, facilitating informal groups, communication

principles in the workplace, principles of good agency writing, public relations, team building and special communication situations. Participants will learn through both presentation of information and practice of skills.

HST240
PRAC COMMUNICATION SKILLS 1 1
Pre-Req HST230
Student will practice related techniques related to the Communication Skills course. They will apply skills learned during class instructions directly to their practicum. Prerequisite: Must be taken in conjunction with or upon completion of HST230.

HST246
COLLABORATION FOR DJFS WORKERS 2 2
This course is designed to provide the student with an understanding of the various agencies and programs available to customers. They will learn how to better access services from outside agencies, how to decrease friction between agencies and how to work together as a team to provide needed services and programs to clients.

HST247
PRACTICUM COLLAB FOR DJFS WRKS 1 5
Pre-Req HST246

HST250
STRAT FOR CHANGE 2 2
This course will focus on the changing human service delivery system and understanding and its impact on the job and the workplace. Students will develop methods and strategies for dealing with stress in the workplace and develop techniques for working effectively as a team member.

HST252
SUPERVISE COLLABORATION 1 1
Course will explore the interrelatedness of IV-A, IV-D, and IV-F programs and the role of the supervisor in supporting interface in their county. Will examine the legislative foundation, goals and linkages of each program. Address the needs for coordination and the importance of monitoring for compliance with rules and policy.

HST253
MAINTAINING PROF SAFETY 1 1
This TOPS course is designed to increase workers' ability to maintain their personal and professional safety at the worksite and in the field. The course will offer concepts and techniques for increasing workers' awareness of potentially unsafe situations and will explore ways of preventing and diffusing them.

HST257
INTERVIEWING SKILLS FOR SSW 2 2
This course deals with basic theory and techniques of focused interviewing. Emphasis is on the development of skills necessary for effective focused and group interviewing techniques including the use of video tape.

Credit Hours Contact Hours

HST258
FAMILY ASSESSMENT FOR HS 1 1
The course focuses on the knowledge and skills needed to assess family needs; understand the assessment process; identify types of assessment and interviewing skills needed for assessment and documentation procedures; effectively assess for service referrals for families to achieve self- sufficiency.

HST260
PRAC-FAMILY ASSESSMENT 1 1
Pre-Req HST258
Student will practice interviewing and assessment techniques related to the Family Assessment course. They will apply skills learned during class instruction directly to their practicum to improve their professional skills and knowledge of Family Assessment.

HST261
WELFARE TO WORK 2 2
This course is designed to provide students with the necessary skills and techniques needed to assist consumers in becoming self-sufficient through the use of job development, job placement, and job retention skills. Activities are designed to fulfill the legislative requirements of the Workforce Investments Act and other key welfare reform legislation.

HST262
PRAC-WELFARE TO WORK 1 1
Pre-Req HST261
Students will practice techniques related to the Welfare to Work course. They will apply skills learned during class instruction directly to their practicum to improve their professional skills knowledge.

HST264
CASE MGT FOR SELF-SUFFICIENCY 1 2
Students will examine the principles and procedures involved in case management in this web enhanced course. All aspects of case management will be considered as it relates to achieving the consumer's goal of self-sufficiency. The three phases of case management are described, as well as case management models, and the case manager's and participant's role in the case management process. Interviewing, documentation and consumer empowerment principles are also addressed.

HST265
PRACTICUM CASE MGT 1 1
Pre-Req HST264
Students will practice techniques related to the Case Management Course. They will apply skills learned during class instruction directly to their practicum to improve their professional skills and knowledge.

Credit Hours | Contact Hours

HST266
OVERVIEW OF JOB & FAMILY SERV 2 2
The focus of this course is to provide the student with a general overview of the history and background of the employment and human service delivery system in the state of Ohio. Students will study the current programs administered and supervised by ODJFS, their interrelatedness, and impact on program consumers.

HST267
PRACT-OVERVIEW OF JOB & FAMILY 1 7
Pre-Req HST266
Students will apply skills and knowledge learned during the class related to Overview of Human Services to their practicum project. They will practice and implement this knowledge directly to their professional skills and knowledge in this subject area.

HST268
MEDICAID-AGED BLIND & DISABLED 2 2
Medicaid-Aged, Blind & Disabled provides a review of the basic eligibility determination processes used in the Aged, Blind and Disabled Medicaid Program of Ohio. It is designed to give Job & Family Services workers in county agencies a better understanding of how eligibility for this program is determined.

HST269
MEDICAID-ABD PRACTICUM 1 15
Students will practice techniques and skills related to the Medicaid course. They will apply skills and knowledge learned during class instruction directly to their practicum.

HST270
ETHICS & LEGAL ISSUES IN PS 1 1

Special Courses in Health Technology

HTD201
HLTH INDEPENDENT STUDY 1 10
An independent study may be arranged through the Health Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Health Technology will determine course content, meeting schedules and credit hours.

HTD202
HLTH INDEPENDENT STUDY 2 20
An independent study may be arranged through the Health Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Health Technology will determine course content, meeting schedules and credit hours.

Credit Hours | Contact Hours

HTD203
HLTH INDEPENDENT STUDY 3 30
An independent study may be arranged through the Health Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Health Technology will determine course content, meeting schedules and credit hours.

HTD204
HLTH INDEPENDENT STUDY 4 40
An independent study may be arranged through the Health Technology Division to satisfy student needs that cannot be satisfied through scheduled courses. The student, faculty advisor and dean for Health Technology will determine course content, meeting schedules and credit hours.

Heating, Ventilation and Air Conditioning Technology

HVC121
HVAC PRINCIPLES I 3 4
Overview of heating, ventilating, and air conditioning, including basic design, equipment characteristics, venting, the refrigeration cycle, system control, basic heat transfer, basic airflow principles, air quality, product quality and comfort principles.

HVC122
HVAC PRINCIPLES II 3 4
Pre-Req HVC121
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.

HVC123
SHEET METAL LAYOUT I 3 4
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.

HVC221
HVAC FURNACE COMBUSTION PRINC 2 2
The National Fuel Gas Code (NFPA54) will be used as the basis for this course of study. Subjects covered will include appliance venting and vent sizing, combustion air requirements and sizing, mechanical room configuration and equipment location. Published manufacturer installation procedures will be a significant part of this course.

Credit Hours | Contact Hours

HVC222
HVAC DESIGN & APPLICATION **3** **4**
Pre-Req HVC122
The student's understanding of heat transfer will be expanded to encompass application. The principles of thermodynamics, psychrometrics, 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.

HVC223
HVAC SYS OPER & TRBLSHT- HEAT **3** **4**
Pre-Req EST130, HVC227
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.

HVC224
HVAC SYS OP & TRBLSHT- COOLING **3** **4**
Pre-Req HVC227, EST130
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 students learns proper system diagnosis and repair procedures.

HVC226
SHEET METAL LAYOUT II **3** **4**
Pre-Req MST132, HVC123
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.

HVC227
HVAC FIELD INSTALL TECH & PROC **4** **5**
Pre-Req HVC122
Laboratory intensive introduction to air conditioning system field installation techniques and procedures.

HVC228
HVAC SYS AIRFLOW & DUCT SIZING **1** **1**
Pre-Req MTH101
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 | Contact Hours

HVC229
AIR CONDITNING REFRIG CYCLE **1** **1**
The refrigeration cycle is presented together with the operation of compressors and metering devices. Equipment studied includes residential air conditioning and heat pumps, their principles of operation, their components and auxiliary devices, and performance ratings

HVC230
HVAC RESIDENTIAL EQUIP SIZING **1** **1**
An in-depth study of residential structural heat loss-heat gain is presented. Software programs based on the ACCA Manual J are utilized to run heating and cooling loads, select equipment and layout ductwork.

HVC231
HVAC MOTORS AND COMPRESSORS **1** **1**
Motors and compressor types, designs, applications, and failure modes are studied. Heavy emphasis is placed on failure symptoms, causes and resolution. Actual failed motors and compressors are examined and probable causes and remedies determined.

HVC232
ADVANCED HVAC APP & CONTROLS **3** **4**
Pre-Req HVC222, HVC227
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.

HVC233
HVAC BID SPECIFICATION **3** **4**
Pre-Req HVC222
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.

Inter-departmental Studies

IDS110
LEADERSHIP CONCEPTS Credit Hours: **3** Contact Hours: **3**
This is the prerequisite course for any and all other Leadership Experience modules. In this course participants learn the basic skills used to effectively interact with others and exert leadership in these interactions. Practical skills include active listening, effective processing, problem solving, negotiating and empowering. This is a team taught course emphasizing experiential techniques.

IDS111
LEADERSHIP SEMINAR Credit Hours: **3** Contact Hours: **3**
This is a highly participative, experiential course that explores trust and team building, goal setting, change management, conflict resolution and transformation leadership. This seminar encourages self-exploration and growth as major process of influence in leadership.

IDS201
TRUST & TEAM BUILDING Credit Hours: **1** Contact Hours: **1**
Pre-Req IDS110
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.

IDS202
GOAL SET/MANAGING SUCCESS Credit Hours: **1** Contact Hours: **1**
Pre-Req IDS110
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.

IDS203
CHANGE, CONFLICT & TRANSF Credit Hours: **1** Contact Hours: **1**
Pre-Req IDS110
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.

IDS204
LEADERSHIP VISION Credit Hours: **1** Contact Hours: **1**
Pre-Req IDS110
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.

IDS205
SITUATIONAL LEADERSHIP Credit Hours: **1** Contact Hours: **1**
Pre-Req IDS110
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.

IDS206
LDSHP DYNAMICS:IND DEV & INFLU Credit Hours: **3** Contact Hours: **3**
Pre-Req ENG124
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 format are main features of this course.

Industrial Engineering Technology

IET223
COMPUTER NUMERICAL CTRL Credit Hours: **4** Contact Hours: **6**
Pre-Req IET123
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.

IET228
INTRO TO ROBOTICS Credit Hours: **2** Contact Hours: **2**
Basic terminology, theory and application of robotics, including: selection, construction, classification, operating characteristics and safety. Emphasis is given to industrial examples in stand-alone and work cell applications.

Interactive Media Technology

IMT121
INTERACTIVE MEDIA Credit Hours: 3 Contact Hours: 3
Investigates interactive media techniques beginning with those pioneered by media authors Meles, Castle, Richiardi, Waters, Zappa and others. New media practices such as compositing, bit-streaming, MIDI and virtual reality are introduced. Multimedia copyright law is also extensively addressed.

IMT122
GRAPHIC ARTS DESIGN Credit Hours: 3 Contact Hours: 4
Necessary tools and components to produce hi-res and web based graphics are presented. New technologies such as "bit-stitching" are covered.

IMT123
CBT DEVELOPMENT W/DIRECTOR Credit Hours: 3 Contact Hours: 4
Pre-Req IMT126
Focuses on implementation of Macromedia Director and LINGO in the development of computer based training modules. Upon completion of the course, the student will be able to author effective presentations for distance learning, marketing, CD-ROM based and web based training.

IMT124
INTERNET DESIGN TOOLS Credit Hours: 3 Contact Hours: 4
Pre-Req ECA228
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.

IMT125
GR ARTS-PROG IN 3D STUDIO MAXI Credit Hours: 3 Contact Hours: 4
Pre-Req IMT122
Virtual reality worlds and artificial intelligence prototypes are used to illustrate the use of 3 dimensional graphics through the creation of animated models. Upon completion, the student will be able to effectively use the 3D Studio Max interface and its complementary components.

IMT126
FLASH ANIMATION & DESIGN Credit Hours: 3 Contact Hours: 4
The focus is on the multimedia content creation through the implementation of Macromedia Flash. Upon completion, the student will have developed a mastery of animations, interface design and ability to use Actionscript effectively.

IMT127
GAME DESIGN Credit Hours: 3 Contact Hours: 4
Categories of video games, design principles related to different processing platforms, current animation techniques, current software packages available for creation of video games are all major topics. The focus of this course is to familiarize the student with design technologies and software available to implement animation used for video games. The student will gain an overall view of the gaming industry.

IMT128
HYPERMEDIA TOOLS Credit Hours: 3 Contact Hours: 4
Pre-Req IMT222
The complete suite of Macromedia MX tools is used to create complete useable products with the focus being on commercial and trade show application development. CD-ROM disk based storage management is also explored.

IMT222
DGTL AUDIO/VIDEO PROD & EDIT I Credit Hours: 3 Contact Hours: 4
Examines from a "hands-on" standpoint the theories and practical uses of digital audio/video creation and production techniques. MIDI sequencing, music composition theory and audio environment creation will be covered. Digital video editing will also be covered. The SMPTE standards will be introduced, in conjunction with the combination of digital audio/video.

IMT223
DGTL AUD/VIDEO PROD & EDIT II Credit Hours: 3 Contact Hours: 4
Pre-Req IMT222
Examines the creation of completed mixed media products. CBT and WBT modules will be the focus of this course. Streaming media will be introduced using PYTHON and SMIL as the primary programming focus.

IMT224
C++ FOR GAMING DEVELOPMENT Credit Hours: 3 Contact Hours: 4
Pre-Req ECA222
Examines the concepts behind the latest game development techniques. The student will be presented with today's 3-D virtual worlds. Textures, lighting, fog, vertices and transformations will be covered. Direct X, Direct Sound and Direct Draw will be the platform to ensure students acquire the latest skills used by today's leading game developers.

IMT225
PROD DEVLPMENT & DISTRIBUTN Credit Hours: 3 Contact Hours: 4
Co-Req IMT226
The focus for this course is the completed product. Issues such as copyrights, intellectual property ownership and deployment concerns will be examined. Cost and staging will also be discussed in depth.

Credit Hours | Contact Hours

IMT226
INTERSHIP 1 2
Pre-Req IMT225
The student will spend an 8 week summer semester working hands-on in a true interactive media environment. The student will be responsible for many facets of this exciting industry. "Real world" experience will be the key focus for this course.

IMT227
GR ARTS-PROG 3D STUDIO MAX II 3 4
Pre-Req IMT125
3D design models are used to create technical based hypermedia presentations such as VRML worlds, Internet "walk-thru's" and portals. The student will be exposed to filters, plug-ins and a variety of complimentary tools to enhance the 3D Studio Max development experience.

IMT228
GR ARTS-3 DIMENSIONAL DES PRAC 3 5
Pre-Req IMT227
Virtual Reality Modeling Language as an integration tool will be used. The student will create a completed 3 dimensional "walk-thru" product in this hands-on project based environment.

IMT229
THEORY & COMPOSITION 3 4
Pre-Req IMT222
Tone and its physical representations, meter and measure, major keys and scales, tempo, the MIDI software interface, computer software/hardware components and their setup are principal topics. The student will be able to explain elementary musical fundamentals and create musical compositions using computer software and hardware interfaces.

IMT230
WEBCASTING 3 4
Pre-Req IMT229
The technology of sending an audio and video stream of the presenter via the Internet through a streaming server is the focus of this course. Presentations are created live as well as learning to cast a previously recorded session via the streaming server and played back "on demand".

IMT231
PROG MIDI SAMP USNG SOFTWR LAN 3 4
Pre-Req ECA222
The production of rhythm, melody, harmony and audio files using MIDI software/hardware interfaces is the focus. An understanding of computer software and hardware technology and MIDI interfaces to create audio files is the bottom line. The student will create a variety of audio files, to include a number of musical compositions, and will be able to describe the resulting compositions using terminology found in both the study of physics and the fundamentals of music. Copyright laws will also be discussed.

Credit Hours | Contact Hours

IMT232
INSTRUMENTAL PRACTICUM 1 2
A practical application of the student's knowledge of music fundamentals, music technology, and computer software/hardware technology. The student will create 0a 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.

IMT235
FLASH ACTIONSCRIPTING 3 4
Pre-Req IMT126
Course focuses on the programming of Actionscripting in Flash, covering all aspects including video game design as well as advanced web site development. Upon completion of this course, students should be able to apply advanced Flash concepts in a variety of graphic based applications.

IMT236
DESIGNING FOR PRESENTATIONS 3 4
Pre-Req IMT223
Students learn various presentation techniques, including Microsoft Power Point, Macromedia Flash, Adobe Acrobat and web design. Course focuses on the science of technical presentation and the most efficient way to present information. Handicap compliance issues will also be emphasized.

Massage Therapy Technology

MAS121
MASSAGE THERAPY I 6 8
This course introduces students to Massage Therapy as a health care profession. Studied are the history and benefits of Massage Therapy and Massage procedures necessary to complete a full-body, therapeutic massage. Laboratory exercises permit students to practice the individual movements that make up a full-body massage.

MAS122
MASSAGE THERAPY II 2 3
Pre-Req MAS121
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.

MAS123
MASSAGE THERAPY A & P I 1 1
Pre-Req MAS121
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	Contact Hours

MAS124
MASSAGE THERAPY A & P II **1** **1**
Pre-Req MAS123
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

MAS221
MASSAGE THERAPY III **6** **8**
Pre-Req MAS122
In this course, students continue to study the practice of Massage Therapy in both a general and clinical setting. The basic structure, function and physiology of muscles are presented leading to a further development of proficiency in the administering of a therapeutic massage. The neuromuscular model of massage therapy will be presented. Lab and clinic experiences will support and further develop the physical skills involved in professional massage applications.

MAS222
MASSAGE THERAPY IV **4** **6**
Pre-Req MAS221
In this course, students will examine various massage therapy techniques in the clinical setting. Massage procedures from various works will be used in the study of treatment of systemic and musculoskeletal dysfunctions. This course also contains a review of massage therapy topics in preparation for the Ohio State Medical Board exam for certification in Massage Therapy as a Limited Medical Practice.

MAS223
MASSAGE THERAPY REVIEW **3** **3**
Pre-Req MAS225 , MAS226
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.

MAS224
MASSAGE THERAPY III **4** **5**
In this course the students continue to study the practice of massage therapy in both a general and clinical setting.

MAS225
MASSAGE THERAPY IV **2** **3**
Pre-Req MAS224
In this course students continue to study the practice of massage therapy in both a general and clinical setting.

	Credit Hours	Contact Hours

MAS226
MASSAGE THERAPY V **3** **4**
Pre-Req MAS223
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.)

MAS227
MASSAGE THERAPY PROCEDURES **2** **3**
Pre-Req MAS121
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.

Medical Assisting

MAT121
MEDICAL ASSISTING I **4** **6**
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; positioning and draping; measuring visual and hearing acuity; practicing and applying medical and surgical asepsis and infection control and the proper techniques employed in performing irrigation of the eye and ear.

MAT122
MEDICAL ASSISTING II **4** **6**
Pre-Req BIO101, MAT121
Course focuses on performing and assisting with advanced clinical skills: venipuncture/specimen preparation compliant with OSHA/CLIA standards, electrocardiography, assisting with minor office surgical procedures, suture insertion/removal, wound irrigation, sterile dressing changes and wound care, gynecological examinations and specimen preparation, urinary bladder catheterization, x-ray preps and dietary instructions. Documentation of clinical procedures are stressed throughout the course of study.

MAT123
MED ASSISTING III/SEM **3** **4**
Pre-Req MAT122
The "Total Concept of Patient Care" simulation gives medical assisting students the opportunity to incorporate and use their acquired knowledge of clinical and administrative skills 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. Students also learn to apply nutritional concepts by planning a 1500 calorie diet. Medical Assisting III precedes Medical Assisting Seminar, fifth semester. Seminar is an integral part of MAIII. Weekly attendance is mandatory. Failure to attend can result in lowering the letter grade for Medical Assisting III and failure to complete graduation requirements. Students will be recertified in CPR before completion of Medical Assisting III.

MAT124
MED TRANSCRIPT FOR MED ASSTG **3** **4**
Pre-Req CAP120, OAD100, OAD101

Course is designed to prepare the student to function as a medical transcriptionist in physician's office, clinic or hospital by the use of authentic medical dictation and computer word processing.

MAT221
MED LAB PROC FOR MED ASSTG **3** **4**
Pre-Req MAT122

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 include auditory screening and spirometry. Pathophysiology presented is related to tests performed in the physician's office.

MAT222
INSURANCE-MAT **4** **5**
Pre-Req MAT122, MAT124

This course focuses on developing a knowledge of commercial, government, and managed care programs, efficient use of CPT and ICD-9 coding, and the ability to complete hard copy claim forms. Managerial skills include: determining patient eligibility and pre-certification requirements, patient's financial responsibility by interpretation of Explanation of Benefits forms, tracking claims, following up on unpaid or denied claims through the appeal process of resubmission of the claim in order to collect proper reimbursement.

MAT223
OFFICE PROCEDURES **4** **6**
Pre-Req CAP120, ENG124, MAT122, MAT124, MTH101

This course focuses on preparing students for administrative and managerial duties in the medical office. Projects are assigned in scheduling, communication, accounts receivable and payable, medical records management areas and inventory. There is extensive hands-on experience with computer accounts receivable software and office forms. Students demonstrate the ability to organize their work, set priorities, make decisions and integrate their skills with Insurance for Medical Assisting.

Credit Hours Contact Hours

MAT224
PHARMACOLOGY/MEDICATIONS **4** **5**
Pre-Req MAT122, MTH101

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.

MAT225
EMERG MED PROC FOR MED ASSTG **2** **3**
Pre-Req MAT122

This course is designed to enable students to become certified in American Red Cross Community CPR and Community First Aid & Safety. In addition, supplementary information is presented covering manual resuscitation with Ambu bags, administering oxygen, crash carts and incident reports. Ongoing throughout the semester are telephone triaging situations which give the student opportunities to handle many different situations over controlled telephone exercises. Study of the disease process is integrated with illnesses, injuries and treatment covered in the course. Students also research current bioethical issues and present an oral report to the class.

MAT226
OFFICE MANAGEMENT/LAW **3** **3**
Pre-Req MAT122, MAT223

This course is designed to prepare potential managers to develop a perspective in managing the physical plant, physician's business practice and employees. The first part of the course deals with basic management principles, problem solving, hiring, training, appraising and disciplining employees as well as employment and anti-discrimination laws. The students develop specific projects in class, as a group or individually. Projects include designing a floor plan, constructing a policy and procedure manual, presenting a patient education lesson, and collectively designing a patient brochure. The last part of the course is designed to present the legal obligations and responsibilities of medical assistants working in the healthcare profession. Course content presents the law, and wherever possible, Ohio law that impacts the medical assistant.

MAT227
EXTERNSHIP MEDICAL ASSISTING **2** **12**

The student is placed in a medical facility for 160 hours of practical application of all skills learned in the classroom and for additional instruction in the actual operation and management of the health care facility. The student works under the close observation and supervision of the physician and office staff.

Credit Hours | Contact Hours

MAT228
OPHTHALMOLOGY I 3 3
Pre-Req MAT121, MAT122

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.

MAT229
OPHTHALMOLOGY II 3 3
Pre-Req MAT228

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.

MAT230
ADV PHLEBOTOMY 3 4
Pre-Req MAT122

Advanced Phlebotomy is designed for Stark State College of Technology students who have had venipuncture or certified medical assistants with at least one year of drawing experience. It focuses on hospital or clinical phlebotomy and expands to specimen collection, handling and transporting as well as safety and infection control practices that protect a phlebotomist while in class or at a clinical facility. There is emphasis on collecting specimens from hard-to-draw patients and tests that are often unique to a hospital. This course is designed to complete educational requirements for candidates to sit for the National (NCA) Clinical Laboratory Phlebotomy Certification examination. Forty hours of clinical externship in a hospital or clinical facility are required for completion of advanced phlebotomy.

MAT231
REIMBURSEMENT FOR HLTH CARE SER 3 3
Pre-Req BIO101

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 | Contact Hours

MAT232
HOSPITAL PHLEBOTOMY 3 4
Pre-Req CAL103

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 120-hour hospital-based phlebotomy experience. Students who successfully complete the course would be eligible to sit for National Certification in Phlebotomy.

Mechanical Engineering Technology

MET123
MATERIAL SCIENCE 2 3

The study of the science of materials used in the fields of engineering and manufacturing. Emphasis is placed on the physical properties of materials. Areas covered include: stress and strain, hardness, creep, fatigue, metallurgy, equilibrium diagrams, and heat treatments. Advantages, disadvantages and applications of ferrous metals, non-ferrous metals, plastics, elastomers, composites and ceramics are discussed.

MET124
STATICS/STR OF MATERIALS 4 5
Pre-Req MTH121
Co-Req PHY121

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.

MET221 ADV STRENGTH OF MATERIAL 2 3
Pre-Req MET124

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.

MET222
FLUID POWER 4 5
Pre-Req MET124

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.

Credit Hours | Contact Hours

MET223
DYNAMICS 2 3
Pre-Req MET124
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 developed. Students are expected to submit one formal report in a format that requires the use of word processing and spreadsheet software.

MET225
MANUFACTURING PROCESSES 3 4
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.

MET226
TECH PROJECT-MECHANICAL 2 4
Students will apply knowledge acquired from technical courses and practical work experience to work independently and complete a technical task. A project is chosen by the student and proposed for approval by the instructor. Topics may be chosen from any area of mechanical, electro-mechanical, design, manufacturing, testing, quality assurance, etc. The scope of the project could include a literature survey, schematics, research analysis, design, fabrication, assembly and testing to create a new or optimize a current design or system.

MET227
THERMODYNAMICS & HEAT TRANSFER 3 4
Pre-Req MTH121, PHY121
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.

MET228
MACHINE DESIGN 4 5
Pre-Req MET124
Descriptive, dimensional and kinematic analysis of machine components, including bearings, shafts, couplings, cams, brakes, gear drives, belt and chain drivers and clutches. Laboratory work includes problem-solving and computer-aided drafting and design of machine components and systems.

Credit Hours | Contact Hours

Business Management Technology

MGT121
PRINCIPLES OF MANAGEMENT 3 3
Pre-Req BUS121
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.

MGT221
SUPERVISION 3 3
Pre-Req MGT121
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.

MGT222
SMALL BUSINESS MGT 3 3
Pre-Req ACC126, ACC133
Focus on problems of organizing and operating a small business with special emphasis on the creation of the business plan. Case studies are used to reinforce basic business concepts and principles. Upon completion, students should understand the complexities of owning their own business and be able to create a business plan.

MGT223
BUSINESS DECISION MAKING 4 4
Pre-Req ACC133, MGT121
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 area of business decision making to successfully manage a corporation. Upon completion of this course a student should have a greater understanding of the impact of teamwork, functional department interactiveness, and competitive market analysis on everyday business decisions.

Credit Hours | Contact Hours

MGT224
HUMAN RESOURCE MGT **3** **3**
Pre-Req MGT121
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.

MGT227
OPERATIONS MANAGEMENT **4** **4**
Pre-Req MGT233 or BUS124 or MTH222 or ACC127
Principles and practice of installation, operation and control of efficient operating systems; plant location, layout, scheduling, materials management and quality. Upon completion, students should be able to demonstrate an understanding of efficient operating systems.

MGT228
21ST CENTURY LEADERSHIP **4** **4**
Pre-Req MGT121
This course is designed to provide students with in-depth opportunities to experiment with and practice 21st century management leadership techniques. The class covers practicums, simulations, how to write mission statements, forming teams and dealing with anticipated case scenarios. Students will be expected to facilitate their own learning with the role modeling aid of the instructor. Critiques of both process and content will be utilized. Upon completion, students should be able to demonstrate an understanding of what it takes to be a leader in the 21st century.

MGT232
INTERNATIONAL BUSINESS **3** **3**
Pre-Req BUS121
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 | Contact Hours

Marketing Management

MKT121
PRINCIPLES OF MARKETING **3** **3**
Pre-Req BUS121
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.

MKT221
SALES **3** **3**
Pre-Req MKT121
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.

MKT222
ADVERTISING **3** **4**
Pre-Req MKT121
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.

MKT226
PURCHASING **3** **3**
Pre-Req MKT121
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.

MKT227 CONSUMER BEHAVIOR **3** **3**
Pre-Req MKT121
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 | Contact Hours

MKT228
BUSINESS TO BUSINESS MKT **3** **3**
Pre-Req MKT121
This course studies industrial and organizational buyer behavior. The study of strategic marketing management practices of firms selling to business organizations, government agencies and institutions are integral to the course. Upon completion, students should be able to demonstrate an understanding of industrial and organizational buyer behavior.

MKT229 MARKET PLANNING **4** **4**
Pre-Req MKT121
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.

MKT232
INTERNET MARKETING **2** **3**
Pre-Req MKT121
This course takes a systems and relationships approach to exploring e-business marketing. The course addresses the basic principles that underlie marketing and how e-business marketing techniques fundamentally change the traditional marketing process. A framework is developed for understanding the forces during the Internet revolution in marketing and business. Lab activities include using the Internet to explore ways to improve quality and customer support, personalize product and messages, generate traffic, build community, price in realtime, and create new channels. Upon completion, the student will understand the use of the Internet in making markets and the main trends affecting the Internet.

MKT233
MARKET RESEARCH **3** **3**
Pre-Req MKT121, ACC127
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 | Contact Hours

Medical Laboratory Technology

MLT121
FUNDAMENTALS OF LAB TECH **3** **4**
This course is designed to expose the student to basic skills and techniques used in the clinical laboratory. Topics to include: lab safety, lab units of measurement and calculations, preparation of solutions, care and use of lab equipment, pipetting and concepts of quality control. Phlebotomy, obtaining blood specimens by venipuncture and skin puncture is part of this course.

MLT122
URINALYSIS **2** **3**
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.

MLT123
HEMATOLOGY I **3** **4**
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.

MLT124
HEMATOLOGY II **4** **6**
Pre-Req MLT122
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 dyscarsia by prepared microscopic slide collection, kodachromes and case histories, and coagulation studies.

MLT125
IMMUNOHEMATOLOGY **5** **7**
Pre-Req MLT122
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 | Contact Hours

MLT221 IMMUNOLOGY/SEROLOGY **3** **4**
Pre-Req MLT125

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.

MLT222
CLINICAL CHEMISTRY **5** **7**
Pre-Req BIO123, BIO121

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.

MLT223
CLINICAL MICROBIOLOGY **7** **10**
Pre-Req BIO221, MLT124

The student will study the morphology and identification of microorganisms commonly found in humans, their relationship to disease states and their susceptibility to antibodies. 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.

MLT224
DIRECTED PRACTICE/SEM **10** **42**

The student has the opportunity to perform clinical laboratory testing using modern equipment. Part of the clinical experience occurs at the college under the directed 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 | Contact Hours

Mechanical Service Technology

MST121
BLUEPRINT READING **2** **3**

This course provides the opportunity for students to develop the skills of reading and interpreting blueprints. Orthographic projection and concepts of visualization are discussed before the various types of blueprints are introduced. "The reading of," rather than the drawing of blueprints is emphasized throughout the course, although freehand sketching is included. Types of prints covered include sheet metal, building, piping, hydraulic and electrical.

MST122
HYDRAULC & PNEUMATIC PRI **3** **4**
Pre-Req MTH101

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.

MST123
HYDRAULC & PNEUMATIC APP **3** **4**
Pre-Req MST122

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.

MST124
FURNACE COMBUSTION PRINC **1** **1**

Fuels, the chemistry of combustion, ratio for perfect combustion, mixing of air and fuel, products of combustion, efficiency, heat transfer, heat loss, pressure terminology, burner components, control valves and safety are all topics that are covered.

MST125
BASIC PUMPS **3** **4**
Pre-Req MTH101

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.

MST126
PIPEFITTING PRINCIPLES **2** **2**
Pre-Req MTH101

Piping systems, valves, fittings, metal piping and non-metallic piping are identified and their use and maintenance are discussed. Strainers, filters, traps and other accessories such as pressure and temperature gauges are reviewed, with a description of how they work and required maintenance.

	Credit Hours	Contact Hours

MST127
PRINCIPLES OF WELDING **3** **3**
Pre-Req MST128
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.

MST128
WELDING LAB **3** **6**
Pre-Req MST127
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.

MST130
ELEMENTS OF MICROPROCESS **4** **3**
Pre-Req EST128
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.

MST131
STATS PROCESS CTRL CHART **2** **2**
Pre-Req MTH101
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.

MST132
SHEET METAL LAYOUT I **3** **4**
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.

MST133
PRESS WORKING FUNDAMENTALS **2** **4**
This course covers metal deformation theory, presses and ancillary equipment, die construction and die component identification. The student will draw various detailed components of dies, using a variety of drafting techniques.

	Credit Hours	Contact Hours

MST134
HYDRAULIC & PNEUMATIC SYS **6** **8**
Pre-Req MTH101
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.

MST221
MECHANICAL DRIVE COMPON **3** **4**
The study of bearings, shafts, couplings, cams, brakes, gear drives, belt drives, chain drives and clutches. Included are component application and maintenance.

MST222
REFRIGERATION **3** **4**
The course covers the various components including compressor, condenser, evaporator, filter-dryer, and other controls that operate a refrigeration unit. Safety and troubleshooting for proper servicing are stressed.

MST223
HYDRAULC & PNEUMATC ELEC **2** **2**
This course covers the study of fluids, their properties, behavior and applications. Various hydraulic and pneumatic circuits, along with cycle charts and associated electrical circuits, are reviewed. Students are required to know components and their identification symbols and operations.

MST224
DIMENSIONAL METROLOGY **2** **3**
An in-depth study of measuring principles, instruments and techniques. This course covers the measuring tools most commonly used in industry. Course covers how to read and use these instruments, how to prevent the most common errors and how to minimize errors.

MST225
DC CRANE CONTROL **1** **1**
This course covers basic DC crane control including operator controls, DC motors, and relay control with an emphasis on maintenance troubleshooting using blueprints and schematics.

MST226
TUNGSTEN INERT GAS WELD **3** **5**
Pre-Req MST127, MST128
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.

MST227
METALLIC INERT GAS WELD **3** **5**
Pre-Req MST127, MST128
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.

MST228
SHIELDED METAL ARC I **3** **5**
Pre-Req MST127, MST128
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.

Medical Transcription

MTC121
MED TRANS/TERM I **5** **8**
Co-Req BIO123, BIO125, OAD121
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.

MTC122
MED TRANS/TERM II **5** **8**
Pre-Req MTC121
Co-Req OAD129, BIO124
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.

MTC123
ADV MED TRANSCRIPTION **3** **6**
Pre-Req MTC122
Co-Req BIO222
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.

Mathematics

MTH101
INTRODUCTION TO ALGEBRA **4** **4**
Pre-Req CAL103
Topics are signed numbers and variable expressions, solving equations and inequalities, polynomials, factoring, algebraic fractions, graphs and linear equations.

MTH121
COLLEGE ALG & TRIG I **4** **4**
Pre-Req MTH101
Topics are fundamental operations of algebra, functions and graphs, trigonometric functions, systems of linear equations, determinants, factoring, fractions, quadratic equations, functions of acute angles, solving right triangles and functions of any size angle.

MTH122
COLLEGE ALG & TRIG II **3** **4**
Pre-Req MTH121
Topics are solving oblique triangles, vectors, graphs of trigonometric functions, complex numbers, exponents, radicals, exponential and logarithmic functions, higher degree equations, additional equations and inequalities.

MTH123
INTERMEDIATE ALGEBRA **3** **3**
Pre-Req MTH101
Topics are fundamental operations of algebra, functions and graphs, systems of linear equations, factoring, fractions and quadratic equations.

MTH221
CONCEPTS OF CALCULUS **3** **3**
Pre-Req MTH122
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.

MTH222
STATISTICS **3** **3**
Pre-Req CAL103, MTH101
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.

	Credit Hours	Contact Hours

MTH223
ANALYTIC GEOMETRY-CAL I 4 4
Pre-Req MTH122
Analytic geometry, limits, continuity, derivatives, tangent and normal lines, derivatives of trigonometric functions, related rates, Newton's method, Rolle's theorem, mean value theorem, extrema of functions, antiderivatives, definite integrals, indefinite integrals, areas, and volumes.

Nursing

NUR121
FUND CONCEPTS IN NURSING 6 12
Pre-Req Admission to the nursing program
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.

NUR122
NURSE CARE CHILDBEAR FAM 4 8
Pre-Req BIO122, CHM122, ENG124, NUR221
This course focuses on nursing care of the child-bearing family. New trends in maternity-child nursing are included.

NUR123
NURSING CARE OF CHILDREN 4 8
Pre-Req NUR122
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 care studied in relation to their effect on the developmental status of children.

NUR201
TRANSITION FOR LPNs 5 9
Pre-Req Admission to the nursing program with advanced standing
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	Contact Hours

NUR221
NUR CARE PERSON/ALT I 6 12
Pre-Req BIO121, BIO123, CHM121, NUR121, PSY121
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.

NUR222
NUR CARE PERSON/ALT II 8 16
Pre-Req NUR123, PSY123
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.

NUR223
NUR CARE PERSON/ALT III 8 18
Pre-Req NUR224, BIO221, SOC121, NUR222
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.

NUR224
NURSING SEMINAR 1 1
Pre-Req BIO221, NUR222, NUR223, SOC121
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.

Information Reporting Technology

OAD100
COMPUTER APP-WINDOWS & CONCEPT 1 2
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.

OAD101
KYBDG/DATA INPUT METHODS 1 2
Upon completion, the student will have working knowledge and basic skills in alpha-numeric touch keyboarding. Scanning, optical character recognition and voice input methods of data input will also be covered. No prior knowledge of keyboarding is required.

Credit Hours | Contact Hours

OAD102
COMPUTER APPLICATIONS-WORD 1 2
Pre-Req CAL104 or OAD100
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.

OAD104
COMPUTER APPLIC-POWERPOINT 1 2
Pre-Req CAL104 or OAD100
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.

OAD105
COMPUTER APPLICATIONS-EXCEL 1 2
Pre-Req CAL104 or OAD100
This course covers the use, styles and features of spreadsheet programs. Upon completion, students should be able to utilize MS Excel as a basic business tool.

OAD106
COMPUTER APPLICATIONS-ACCESS 1 2
Pre-Req CAL104 or OAD100
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.

OAD121
KEYBOARDING/FORMATTING 3 4
This course is designed to refine the fundamentals of "touch" control of the keyboard and proper keyboarding techniques. KNOWLEDGE OF KEYBOARDING IS REQUIRED. Major objectives are to build speed and accuracy at the keyboard and to apply keyboarding skills in the formatting of business correspondence, tables and reports. Upon completion, students should be able to format a variety of business documents using a popular word processing package and achieve a minimum keyboarding skill.

OAD127
WP-MICROSOFT WORD 3 4
Pre-Req OAD121, CAP120
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.

OAD128
DTP – MICROSOFT PUBLISHER 3 4
Pre-Req CAP120, OAD131
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 | Contact Hours

OAD129
KEYBOARDING/SKILLBUILDING 1 3
Pre-Req OAD121
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.

OAD130
COMM & TRANSCRIPT SKILLS 3 3
This course emphasizes the elements of written communication including spelling, grammar, punctuation and word usage for the transcription and preparation of business documents. Upon completion, students should be able to use proper grammar and punctuation skills in written and oral communication.

OAD131
GRAPHIC DESIGN CONCEPTS 3 4
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.

OAD132
RECORDS MANAGEMENT 3 4
This course is an introduction to the fundamentals of a records and information management program. Emphasis is placed on learning and applying standard rules for alphabetic storage and retrieval including the subject, numeric and geographic filing methods. Upon completion, students should be able to demonstrate an understanding of the components of a records management program and competence in applying the generally accepted standard filing rules.

OAD224
LEGAL OFFICE PROCEDURES 3 4
Pre-Req OAD121, OAD130
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 | Contact Hours

OAD225
ADMIN MACHINE TRANSCRIPT 3 4
Pre-Req OAD130
This course will help the student develop proficiency in producing mailable copy of dictated letters, memos and reports using transcription equipment and word processing software. Continued emphasis is given to language arts and proofreading skills. Upon completion, students should be able to transcribe verbal dictation into mailable printed copy.

OAD226
SPRSHEET MICROSOFT EXCEL 3 4
Pre-Req CAP120
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.

OAD227
ADMIN PROCEDURES & SYS 3 4
Pre-Req OAD129, OAD130
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, copiers 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.

OAD232
ADMIN INFO TECH PRACTICUM 3 6
Students are assigned to work for college faculty or staff or to businesses outside the college. Students will meet in class two hours per week with an instructor. Upon completion, students should be able to demonstrate proficiency in office administrative tasks and skills in a work environment.

OAD234
ADMIN INFO SPECIAL TOPICS 2 2
Selected topics on areas of interest to Administrative Information Technologies majors through seminar meetings and/or individualized research. Upon completion, students should be knowledgeable in current trends and issues in office administration technology.

OAD235
LEGAL RESEARCH & WRITING 3 4
This course introduces the student to the basics of legal writing, document drafting skills and legal research strategies used in assisting lawyers in the preparation of legal documents.

Credit Hours | Contact Hours

OAD236
DB APP MICROSOFT ACCESS 3 4
Pre-Req CAP120
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.

OAD237
LEGAL OFFICE APPLICATION 3 4
Pre-Req OAD224, OAD239
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 legal 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 a word processing software.

OAD238
MICROSOFT FRONT PAGE 3 4
Pre-Req CAP120, OAD131
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.

OAD239
LEGAL TRANSCRIPTION 3 4
Pre-Req OAD130, OAD121
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.

Occupational Therapy Assistant Technology

OTA121
FOUNDATIONS OF OT 3 4
Explains the profession of occupational therapy, the roles and functions of occupational therapy personnel, the areas of occupational performances and the theoretical basis of using goal-directed activities. Observation in local occupational therapy clinics is scheduled.

Credit Hours | Contact Hours

OTA122
THERAPEUTIC MEDIA 3 6
Pre-Req OTA121
Introduces the student to therapeutic use of activities. Includes skill development in selected activities in the areas of play/leisure skills, work performance and use of therapeutic adaptive equipment.

OTA123
PSYCHOSOCIAL ASPECTS OT 4 4
Pre-Req OTA121, OTA124, OTA122, PSY221, PSY121
Instruction in occupational therapy theories and treatment for individuals with psychiatric and/or social impairments. Emphasis on therapeutic application of self, group dynamics, relaxation techniques and therapeutic use of activities to promote psychological well-being and enhance occupational performance.

OTA124 PSYCHOSOCIAL CLINICAL EX 3 5
Pre-Req OTA121, OTA123
Skill development in group processes and didactic interactions. Supervised work experience and interactions with persons who have psychological dysfunctions.

OTA221
DEVELOP ASPECTS IN OT 4 4
Pre-Req PTA226, BIO123, OTA222, OTA121, OTA223
Identification and description of handicapping conditions existing from birth or early childhood. 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.

OTA222
DEV CLINICAL EXPERIENCE 3 5
Pre-Req BIO123, OTA221, OTA121, OTA123, OTA124
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.

OTA223
LIFE SPAN DEVELOPMENT 5 5
Pre-Req ENG124, ENG101
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 | Contact Hours

OTA224
OT IN PHYSICAL DYSFUN 4 4
Pre-Req OTA222, BIO124, OTA223, OTA225, PTA226
Instruction in occupational therapy theories and treatment for individuals with physical impairments and high risk medical conditions. Emphasis on use of therapeutic activities to restore, maintain and/or facilitate physical well-being and independence.

OTA225
PHYS DYSFUNTION CLINIC 3 5
Pre-Req OTA222, OTA224
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.

OTA226
OT ASST SEMINAR 2 2
Pre-Req OTA224
Examination and discussion of the professional roles and responsibilities of the occupational therapy assistant. Includes exploration of traditional and non-traditional roles, such as activities coordinator and case manager orientation to licensure; legal aspects of treatment and documentation.

OTA227
CLINICAL APPLICATIONS I 3 40
Pre-Req OTA224, OTA225, OTA226
Supervised field work placement designed to provide n-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.

OTA228
CLINICAL APPLICATIONS II 3 40
Pre-Req OTA224, OTA225, OTA226
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.

Philosophy

PHL122
ETHICS 3 3
Uses historical and contemporary theories to examine the role and application of ethics to a variety of personal and professional modern-day situations.

Physics

PHY101
PRINCIPLES OF PHYSICS **4** **5**
Pre-Req MTH101, MTH121
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.

PHY121
PHYSICS I **4** **5**
Pre-Req MTH121
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.

PHY122
PHYSICS II **4** **5**
Pre-Req MTH121, PHY121
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.

Political Science

PSC121
POLITICAL SCIENCE **3** **3**
An examination of the nature, purpose and forms of American government; the relationship between function and structure; the dynamics of political change; and governmental problems of modern society.

Psychology

PSY121
GENERAL PSYCHOLOGY **3** **3**
Surveys the scientific study of behavior, addressing a wide range of traditional topics, including learning, memory and cognition, sensory-perceptual processes, physiology and behavior, motivation and emotion, intelligence, personality and social interaction. Emphasizes classical and current theory and research, with selected attention to practical application.

PSY122
PSYCHOLOGY OF ADJUSTMENT **3** **3**
Pre-Req PSY121
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.

PSY123
HUMAN GROWTH & DEVELOP **3** **3**
A study of normal physical, mental, emotional and social development and changes in the development of the individual from prenatal to old age.

PSY124
PSYCHOLOGY OF WORK **3** **3**
Drawing from a wide range of psychological theories, principles and research, this course emphasizes personal and interpersonal skill-building beneficial to the prospective professional. Topics include learning and memory; perception; motivation and leadership; group dynamics and team-building; problem-solving and conflict resolution; communications; and stress management.

PSY125
CHILD DEVELOPMENT I **3** **3**
Pre-Req PSY121
A detailed examination of infant/toddler growth and maturation. Physical, cognitive, affective, social, moral/ethical and personality development are studied. Ten field observation hours required.

PSY127
GROUP PROCESSES **4** **4**
Group theory, structure and interaction are explored with personal insight into how the individual is affected by and influences the group process. Factors that impede/enhance group effectiveness are examined, particularly those which arise from individual member behaviors.

Credit Hours | Contact Hours

PSY221
ABNORMAL PSYCHOLOGY 3 3
Pre-Req PSY121
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.

PSY222
PSY ASPECT OF THERAPY 3 3
Pre-Req PSY121
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.

PSY223
CHILD DEVELOPMENT II 3 3
Pre-Req PSY121
A continuation of PSY 125, focusing on the preschool years (to age eight) with some treatment of selected topics relating to later stages. Ten field observation hours required.

Physical Therapist Assistant Technology

PTA121
FUNDAMENTALS OF PT 4 5
Pre-Req BIO122, BIO123
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.

PTA122
MUSCULOSKELTAL ANATOMY 4 5
Pre-Req BIO122, BIO123
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 | Contact Hours

PTA123
KINESIOLOGY 4 5
Pre-Req PTA122, PHY101, PTA221
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 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.

PTA124
MST PROCEDURES FOR PTA 2 3
Pre-Req PTA123, PTA221
The student will learn data collecting and documentation for therapeutic measurement skills including goniometry and manual muscle testing.

PTA125
PROF CLIN PRACT FOR PTA 1 1
Pre-Req PTA123, PTA221, PTA124
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.

PTA221
PTA PROCEDURES I 5 7
Pre-Req PTA122, PTA123
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.

PTA222
PTA PROCEDURES II 5 7
Pre-Req BIO124, PTA124, PTA125,PTA228, PTA229
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 and physiology, sensory integration, motor development and motor control. Laboratory activities,

written assignments and competencies, are required components of this course. Students will perform selected therapeutic interviews with patients under direct PT/PTA supervision as part of laboratory component of this course.

PTA223
PTA PROCEDURES III **2** **3**
Pre-Req PTA222, PTA228, PTA229, PTA230
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.

PTA226
FUNCTIONAL ANATOMY **4** **5**
Pre-Req BIO123, BIO122
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 neuromuscular-skeletal system. Motion of the human body is studied as a basis for therapeutic exercise and function.

PTA227
DIRECTED PRACTICE III **3** **15**
Pre-Req PTA231
Selected clinical experience in various physical therapy settings under direct supervision. Grading: Credit/Fail

PTA228
SEMINAR I **2** **2**
Pre-Req PTA124, PTA125, PTA222, PTA229
Presentation of topics related to clinical practice to include ethics and professional development.

PTA229 DIRECTED PRACTICE I **3** **16**
Pre-Req PTA124, PTA125, PTA222, PTA228
Clinical experience in various physical therapy departments under direct supervision. Grading: Credit/Fail

PTA230
SEMINAR II **1** **1**
Pre-Req PTA222, PTA223, PTA228, PTA229
Presentation of diverse clinical issues and approaches to patient management.

PTA231
DIRECTED PRACTICE II **2** **10**
Pre-Req PTA223, PTA22, PTA230
Clinical experience in various physical therapy departments under direct supervision. Grading: Credit/Fail

Credit Hours Contact Hours

Respiratory Care Technology

RCT121
INTRO TO RC PROCEDURES **3** **4**
An introduction to the field of respiratory care: the job functions of the respiratory therapy profession; orientation to charting techniques; patient positioning; vital sign assessment; cleaning and sterilization; isolation techniques; and other procedures required for entry into the hospital setting.

RCT122
MED GAS ADMINISTRATION **3** **4**
An introduction to the basics of oxygen administration, aerosol and humidification therapy.

RCT123
AIRWAY MANAGEMENT PROCED **3** **4**
Pre-Req RCT121, RCT122
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.

RCT124
PHARMACOLOGY FOR RT **2** **2**
Pre-Req BIO123, RCT121, RCT122, RCT123
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.

RCT125
CLINICAL PRACTICE BP/SEM **3** **17**
Pre-Req RCT121, RCT122
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.

RCT126
INTRO TO CRITICAL CARE **3** **4**
Pre-Req RCT123, RCT124, RCT127
An orientation to the principles related to the care of the critically ill patient with an emphasis on mechanical ventilation.

RCT127
CARDIOPULMONARY A & P **3** **3**
Pre-Req BIO123, RCT123, RCT124, RCT126
An orientation to the anatomy and physiology of the respiratory system and the cardiac system.

RCT128
CLIN PRACT-AIRW MGT/SEM **2** **9**
Pre-Req RCT123, RCT124, RCT125
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.

RCT221
ADVANCE RT PROCEDURES **3** **4**
Pre-Req RCT126, RCT127
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.

RCT222
RESPIRATORY DISEASES **3** **3**
Pre-Req RCT124, RCT127
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.

RCT223
PAT ASSMNST & MONITOR **3** **3**
Pre-Req RCT221, RCT222
Exposure to various procedures and techniques associated with the monitoring and evaluation of the patient with cardiopulmonary disease.

RCT224
CLIN PRAC CRIT CARE/SEM **3** **17**
Pre-Req RCT124, RCT126, RCT127, RCT128
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.

RCT225
CLIN PRACT SPEC ROT/SEM **5** **25**
Pre-Req RCT127, RCT221, RCT222, RCT224
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.

Sociology

SOC121
SOCIOLOGY **3** **3**
Introduces the general theories of the field and research methods. Students will examine the impact of culture, social interaction, social structure, socialization, and social institutions on social behavior.

SOC122
SOCIETY & TECHNOLOGY **3** **3**
An examination of the consequences of technological change on social organizations, cultural values and social institutions, and the response or adaptation of social systems to this change. Includes an assessment of the social problems of a technological age as seen through current events.

SOC123
DYNAMICS OF THE FAMILY **3** **3**
Explores various social and psychological approaches to family analysis, with emphasis on the family as a system. The transformation of the structure and function of the family from the traditional family to a more diverse definition of family is examined in relationship to changing roles and life issues.

SOC124
US SOCIAL SYSTEMS **3** **3**
Pre-Req SOC121
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.

SOC125
INTRO TO GERONTOLOGY **3** **3**
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 | Contact Hours

SOC126
PSYCHOSOCIAL ASPECT AGIN 3 3
Examines the process of aging from individual and societal perspectives. Uses a psychosocial approach to discuss the images of growing old, created by individual and institutional structures of society, as well as the myriad of patterns in inequality of gender, race, and economics that are compounded in old age. Topics include speed of behavior, mental functioning, mental disorders, socialization, social support, economics and retirement, leisure activities, living arrangements, and death and dying.

SOC221
SOCIAL PROBLEMS 3 3
Pre-Req SOC121
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.

SOC222
JUVENILE DELINQUENCY 3 3
Pre-Req SOC121
Introduces students to the nature and causes of juvenile delinquency. Major theories proposed explanations of juvenile delinquent behavior are reviewed and evaluated. Students will have an opportunity to gain an understanding of the life experiences leading up to juvenile delinquent behavior, to the external and internal influences on the juvenile 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.

SOC225
CULTURAL DIVERSITY 3 3
Provide students with an understanding of the cultural diversity of our changing society. Students will examine and discuss the diverse values and characteristics of ethnic and minority populations and how those values influence society, social and economic processes, and race relations

SOC227
SOCIAL SERV FOR ELDERLY 3 3
Presents information on national, state and local social services that meet the needs of the elderly, their families, their communities and the institutions serving them and their relatives. Includes an examination of current societal policy and programs to meet the needs of the elderly and a basic orientation to the roles of various personnel in agencies.

Credit Hours | Contact Hours

Speech

SPH121
EFFECTIVE SPEAKING 3 3
This course is designed to help students develop effective speaking skills so that they are better prepared to speak before groups in business or industry. Principles of content selection, organization, audience analysis and projection are studied.

SPH122
INTERGROUP COMMUNICATION 3 3
Pre-Req ENG124
Students examine the role of the individual in small work and social group environments. Primary aspects of the course concentrate on the student conducting research in a variety of topic areas, organizing the collected data in written format, and being able to present the results of the research verbally and non-verbally to a small audience. Students will relate principles of group dynamic theory to actual application in the classroom setting. Research areas will include topics of primary concern to the student's technology.

Social Work

SWK121
INTRO TO SOCIAL WELFARE 3 3
Provides an overview of the social welfare system spanning the last two hundred years. The dynamics of the various social, political, and philosophical ideas are examined as they have affected the social welfare system in the United States and social work as a profession.

SWK124
METHODS IN PRACTICE I 3 3
Pre-Req SWK121
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.

SWK125
SUBSTANCE ABUSE 3 3
Examination of the impact of alcohol and drugs on American society and the role of the social service professional in educating, supporting and assisting clients with treatment options/resources. Topics include common stereotypes, myths, attitudes, interventions, treatment options and co-dependency.

SWK126
HUMAN BEHAVIOR & SOC ENV 3 3
Provides a comprehensive study of human behavior from a life span perspective. A systems approach is used with special attention to the role of the social service professional and the social service system.

	Credit Hours	Contact Hours

SWK127
GROUP PROCESSES **4** **4**
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.

SWK128
INTRO TO GERONTOLOGY **3** **3**
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.

SWK129
PSYCHOSOCIAL ASPECT AGING **3** **3**
Examines the process of aging from individual and societal perspectives. Uses a psychosocial approach to discuss the images of growing old, created by individual and institutional structures of society, as well as the myriad of patterns in inequality of gender, race, and economics that are compounded in old age. Topics include speed of behavior, mental functioning, mental disorders, socialization, social support, economics and retirement, leisure activities, living arrangements and death and dying.

SWK130
METHODS IN PRACTICE II **3** **3**
Pre-Req SWK124
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.

SWK224
POVERTY IN THE US **3** **3**
Pre-Req SOC121 or SWK121
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	Contact Hours

SWK225
VICTIM & CRISIS INTERVENTION **3** **3**
Pre-Req SWK121
Course provides students with the basic understanding of victimization and theories and practice of intervention. Issues such as risk factors, legal issues, interventions strategies of child abuse, spousal abuse, elder abuse and co-dependency will be introduced. The majority of instruction for this course will occur off-campus at the Stark County Crisis Intervention Center. Students will be required to apply course skills by working on the crisis hotline.

SWK226
SOCIAL SERVICE LAW **3** **3**
Comparisons of the theoretical basis of social work and law. Basic terminology, principles, organization and procedures of law will be explored along with the relationships of the two professions-law and social work.

SWK227
SOCIAL SERVICE PRACTICUM **2** **14**
Pre-Req SWK228
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.

SWK228
PRACTICUM SEMINAR **1** **1**
Pre-Req SWK227
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.

SWK230
SOCIAL SERV FOR ELDERLY **3** **3**
Presents information on national, state, and local social services that meet the needs of the elderly, their families, their communities, and the institutions serving them and their relatives. Includes an examination of current societal policy and programs to meet the needs of the elderly and a basic orientation to the roles of various personnel in agencies.





BUSINESS TECHNOLOGIES

Accounting Technology
- *Bookkeeping Certificate*
- *CPA Option*
- *Corporate Option*

Administrative Information Technology
- *Administrative Information Certificate*

Automotive Technology
- *Comprehensive Automotive Program*
- *GM ASEP Option*
- *Corporate/Toyota T-Ten Certificate of Completion*

Business Management Technology
- *Finance Option*
- *Health Services Option*
- *International Business Option*
- *Small Business Option*

Financial Services Technology

Information Reporting Technology
- *Judicial Reporting Option*
- *Captioning Option*
- *Realtime Transcription Option*

Legal Assisting Technology

Marketing Management Technology
- *E-Commerce Marketing Option*
- *Sales Option*

Operations Management Technology

ENGINEERING TECHNOLOGIES

Applied Industrial Technology
- *Electrical Maintainer Corporate Option*
- *Mechanical Maintainer Corporate Option*

Civil Engineering Technology
- *Architectural Major*
- *Surveying Major*

Design Engineering Technology

Electric Power Utility Technology
- *Line Worker Technician Option*
- *Substation Technician Option*

Electrical Engineering Technology

Electrical Maintenance Technology

Electronic Engineering Technology

Environmental Health and Safety Technology

Heating, Ventilation and Air Conditioning Technology

Mechanical Engineering Technology

GENERAL STUDIES

English

Mathematics

Physics

Sciences

Social Sciences

HEALTH TECHNOLOGIES

Dental Hygiene

Health Information Technology
- *Medical Coding Specialist Certificate*
- *Medical Transcription Certificate*

Massage Therapy
- *Massage Therapy Certificate*

Medical Assisting

Medical Laboratory Technology

Nursing – ADN

Nursing – LPN to RN

Occupational Therapy Assistant Technology

Physical Therapist Assistant Technology

Respiratory Care Technology

INFORMATION TECHNOLOGIES

Computer Network Administration and Security Technology
- *Security and Forensics Option*

Computer Networking and Telecommunications Engineering Technology

Computer Science and Engineering Technology
- *University of Toledo Transfer Option*
- *Video Game Design Option*

Computer Technology
- *Client-Server Support Specialist (Help Desk Analyst) Option*
- *Instructional Design Option*
- *Software Developer Option*

Database Administration Technology

E-Commerce Technology

Interactive Media Technology
- *Commercial Music Production and Broadcasting Option*
- *Computer Graphics and 3D Animation Option*
- *Multimedia Design and Development Option*

PUBLIC SERVICE TECHNOLOGIES

Early Childhood Education

Fire Science Technology
- *EMT Certification*

Human and Social Service Technology
- *Gerontology Option*

Human Service Development Institute
- *Job and Family Services Certificate*

ALSO OFFERING

Associate of Science Degree

Associate of Technical Studies Degree

STARK STATE COLLEGE

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