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All statements in this publication are announcements of present policy only and are subject to change at any time without prior notice. They are not to be regarded as offers to contract.

Throughout this document, trademark names are used. Rather than placing a trademark symbol after every occurrence of a trademarked name, we used the names in an editorial fashion only, and to the benefit of the trademark owner, with no intention of infringement of the trademark. Where such designations appear in this document, they have been printed with initial caps.

Cincinnati State Technical and Community College does not discriminate on the basis of race, age, color, handicap, sexual orientation, national origin or gender in the admission of students or in any activity conducted by Cincinnati State.

Cincinnati State Technical and Community College is an equal opportunity institution.

Parts or all of this catalog as well as any admissions materials will be provided on tape to disabled individuals upon request.


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## Cincinnati State Technical and Community College

Cincinnati State Technical and Community College is a public, two-year college under the authority of the Ohio Board of Regents. Governed by a nine-member Board of Trustees, the College offers 72 associate degree programs and majors and numerous certificate programs. Annually, over 15,000 students enroll in Cincinnati State courses that are offered in the day, evening, and on weekends. In addition to its academic and technical programs, the College offers many continuing education opportunities through short courses, seminars, and on-site training for area businesses and industries. The College is fully 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, 800-621-7440) and holds numerous programmatic accreditations as well.

## Mission

Cincinnati State Technical and Community College provides student focused, accessible quality technical and general education, academic transfer, experiential and cooperative education, and workforce development.

## Institutional Values

As a College Community...

- We embrace experiential and lifelong learning, personal growth and employability.
- We create and promote a civil and respectful environment.
- We anticipate and effectively respond to changing stakeholder expectations.
- We honor the diversity of people and ideas.


## Vision

Cincinnati State will be the Technical and Community College of choice in our region, nationally recognized for academic excellence, cooperative education and workforce development.

## Cooperative Education

Since its beginning, Cincinnati State has emphasized the value of integrating cooperative work experience with academic coursework. The College's graduate employment rate of $98 \%$ speaks directly to Cincinnati State's commitment to provide quality education enriched by on-the-job training. Students encounter "real life" job demands, helping to clarify their career choices as well as promoting independence and responsibility in the workplace. Most co-op experiences are paid placements that permit students to earn while learning and also to defray the total cost of their education. The College has been recognized nationally for its extensive cooperative education program. Over 600 area employers provide placements for Cincinnati State students who devote at least one term of their program of study to applying the knowledge they have acquired in the lab and in the classroom.

## Student-Centered Quality Education

Cincinnati State is also known for its dedication to teaching and its student-centered philosophy and practices. Small class sizes, an extensive developmental education program, a free tutoring program, counseling, and library services provide the kinds of academic support needed for success for both the returning adult student and the recent high school student. Both theory and practice are stressed through appropriate classroom, laboratory, and cooperative/clinical education experiences. Each student at Cincinnati State is an individual, not a number.
Cincinnati State teachers take pride in the personal attention afforded to each student, and every Cincinnati State graduate is a reflection of the College's commitment to developing human potential, one student at a time.

## Collaborative Relationships

Cincinnati State serves the community by hosting numerous community events throughout the year and by its many partnerships with area high schools and universities. In addition to the College's extensive cooperative education program described above, the College is a member of the Greater Cincinnati Consortium of Colleges and Universities which allows students, under certain conditions, to take courses not offered at their home institution at any of the thirteen member institutions. Students who wish more information about this program should contact Cincinnati State's registrar.
Cincinnati State also has a cross-registration agreement with the Army and Air Force ROTC at the University of Cincinnati. Army and Air Force personnel teach the General Military Training (GMT) course classes. Enrollment in these classes entails no service obligation. Books for these courses and uniforms are provided free to students. The student attends ROTC classes and drill periods on the University of Cincinnati campus while attending academic classes at Cincinnati State. Details may be obtained from the Veterans Affairs Office, Room 157 at Cincinnati State.

## Accreditation \& Memberships

Ohio Board of Regents
Division of Vocational Education, State Department of Education Higher Learning Commission of the North Central Association of Colleges and Schools (30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504, 800-621-7440)
Professional Landcare Network
FAA-Approved Aircraft Maintenance Technician School American Culinary Federation Educational Institute
American Landscape Contractors Association (ALCA)
City and Guilds of London Institute
Commission on Accreditation for Dietetics Education of the American Dietetic Association
Dietary Manager's Association
National Automotive Technician Education Foundation (NATEF) National League for Nursing Accreditation Commission, Inc. Technology Accreditation Commission of the Accreditation Board for Engineering and Technology Member of the American Society of Allied Health Professionals Member of Cooperative Education Association
Member of CQIN (Continuous Quality Improvement Network)

Member of American Technical Education Association
Member of American Association of Community Colleges
Member of Enterprise Ohio Network
Member of Greater Cincinnati Consortium of Colleges and Universities
Member of CincinnatiUSA Chamber of Commerce
Member of Midwest Cooperative Education \&
Internship Association
Member of National Association of College and
University Business Officers
Member of National Network of Health Career Programs in Two-Year Colleges
Member of Northern Kentucky Chamber of Commerce
Member of OhioLINK
Member of OHIONET
Member of Southwest Ohio and Neighboring Librares (SWON)
Member of World Association of Cooperative Education
Member of Ohio Association of Community Colleges
Member of National Junior College Athletic Association
Member of World Affairs Council
Member of AQIP (Academic Quality Improvement Project)
Member of American Society for Quality Management
Member of National Association of
College Admission Counseling
Member of American Association of Collegiate Registrars and Admission Officers


## Admission Information

Cincinnati State Technical and Community College is an open-access, public institution that is dedicated to the principles of providing each student the maximum opportunity to develop and learn.
Students who are high school graduates or have a high school equivalence (GED) are eligible for admission to Cincinnati State Technical and Community College.
Upon completion of the admission process, students will be admitted to a degree program. Some admitted students may be recommended to participate in prerequisite or developmental education courses. All placements are based on a review of placement test scores and high school (or GED) and college transcripts. All admission placements may lead to an associate degree or certificate.
Prerequisite or developmental education courses enable the student to develop or strengthen important academic skills by taking prescribed classes. A class schedule is designed by an academic advisor to enhance the student's academic success and is based on the student's goal, a review of placement test scores, high school and/or college transcripts, and the academic advising session. Students must complete all prerequisite or developmental education courses in five terms or one calendar year.
Students admitted to degree programs are regular students enrolled in eligible programs for the purpose of receiving a degree or certificate.
Graduation Rate Information: Graduation rate information is available in the Office of Admission, Room 168 Main Building.
Apply Early! Students are advised to begin the process of admission six to eight weeks in advance of the term in which they plan to attend Cincinnati State, in order to facilitate transcript requests from other schools, financial aid processing, and advising. Some programs reach their capacity early requiring possible placement on a wait list.

## Degree and Certificate Applicants

High school graduates and recipients of the GED certificate must submit the following:

- A completed and signed paper Application for Admission or apply online at http://www.cincinnatistate.edu.
- A $\$ 10.00$ non-refundable admission fee will be charged to the student's first registration bill.
- Official high school transcript - the transcript must be mailed directly to the Office of Admission Records. Hand carried transcripts will not be accepted. (If you are a high school senior, a final transcript will be required upon graduation.)
- Applicants who are not high school graduates must submit a copy of their General Educational Development Test (GED) scores.
- Complete the ACT $^{\text {M }}$ COMPASS/ESL Placement Test (see Placement Testing on page 18).


## Transfer applicants who have attended another college

 should submit the following:- A completed and signed paper Application for Admission or apply online at http://www.cincinnatistate.edu.
- A $\$ 10.00$ non-refundable admission fee will be charged to
the student's first registration bill.
- Request that the high school mail to the Office of Admission a final official transcript copy. Note: The high school transcripts requirement will be waived if you are a college graduate. Hand carried, emailed or faxed copies will not be accepted.
- Request an official transcript be mailed to the Office of Admission from each college or university attended if you wish to transfer credits or request a waiver of the COMPASS/ESL Test.
- Complete the ACT™ COMPASS/ESL Placement Test (see Placement Testing on page 18).
A request to waive this requirement can be initiated through the Office of Admission or online if the student has either earned a degree at a regionally accredited institution, or the student has previous college-level coursework in English and math.


## Readmission

- Admitted students who have not enrolled for five (5) consecutive terms must reapply for admission and pay a $\$ 10.00$ non-refundable admission fee (charged to the student's first registration bill).
- Students reapplying for admission five (5) years after their prior admission date will need to resubmit an Application for Admission and retest.
- Admission documents are maintained for five (5) years after the initial admission date.
Applicants who are not seeking a degree or certificate should submit a completed Non-Degree Personal Data Form and the Course Registration Form available in the Office of the Registrar, Room 161 Main Building. This form is also available on the official Cincinnati State Web site.


## Note:

- An Application for Admission for non-admitted students is valid for one year.
- Admission documents for admitted students are maintained for five years after the initial admission date.
- All documents submitted to the Office of Admission become the property of Cincinnati State Technical and Community College and will not be returned, forwarded or copied. Please request this information from the issuing institution.


## Change of Major

To change a major after being admitted and enrolled at Cincinnati State, the student needs to process a Change of Major form in the Office of Admission or on line. Students who are uncertain about career options should contact the Counseling Center at (513) 569-4696 to schedule a career counseling appointment.

## International Applications

Non-US citizens who have been granted the status of immigrant, permanent resident, or refugee by the Bureau of Citizenship and Immigration Services may be admitted on the same basis as US citizens. You must provide the Office of Admission a copy of your documentation (Permanent Resident Card, Visa and I-94, etc.) in order for your application to be processed.
All other international applicants will be required to complete
the following no later than two months before the student intends to begin:

1. Meet the admission requirements of US citizens including completion of an Application for Admission.
2. Provide proof of proficiency with the English language with a minimum score of 500 (paper) or 173 (computer based) or 61 (internet based) on the TOEFL, sent directly from the educational testing service. Our school code is 1984.
3. English translation of high school transcripts. If you wish to transfer college/university coursework from abroad, you must have your transcript(s) translated and evaluated by an official Credential Evaluation Service. (Listing available upon request from the International Student Office.)
4. Provide proof of adequate financial support - It is estimated that the international student will need a minimum of $\$ 17,542.00$ per year for tuition, books, living, and miscellaneous expenses. There are no scholarships or educational loans available for international students. Submission of a signed and officiated Certification of Finances Form to the attention of the International Student Advisor is required to verify the availability of sufficient funds to cover the cost of the education while attending Cincinnati State College.
5. Upon receipt of the above-mentioned documents, and consequent offer of admission, all international students must submit a $\$ 3,500$ advance tuition deposit fee to the Cashier's Office. This deposit will be credited to the individual's account and used for payment of tuition and fees only. The Advance Deposit Fee covers approximately two terms of tuition. The student must provide for all other expenses, room, board, books, transportation and incidental expenses.
6 . I-20 Form is issued to the student only after the abovementioned steps are completed.
For additional information regarding international admission, contact the International Student Advisor at (513) 569-1543, or visit our Web site at http://www.cincinnatistate.edu.
*Only certain international student visas are eligible for financial aid. Please see the Office of Financial Aid Web site at http://www.cincinnatistate.edu/CurrentStudent/FinancialAid to determine your eligibility.

## Home-Schooled Students

Home-schooled applicants must submit the following: 1) Application for Admission, 2) a notarized letter from their parents detailing the content of the student's home-school experience and duration, and 3) a diploma and transcript from a recognized home-schooling association or a state diploma based on the GED. All home-schooled applicants must take the ACT ${ }^{\top M}$ COMPASS/ESL Placement Test.

## Placement Testing

All students who are seeking a degree or certificate must participate in placement testing for mathematics, reading, writing, and in certain circumstances, keyboarding. Prerequisites are enforced; therefore, students will be required to enroll in any developmental education class tested into before they can enroll in college level courses. This placement testing will assist your advisor in placing you in the appropriate entry level class. Testing is conducted in Room 196 Main Building. No appointment is necessary. Testing is done on a walk-in basis; there is no fee for testing. You may only test one time.

Testing hours are:
Monday through Thursday 8:00 a.m. to 8:00 p.m.
Arrive no later than 6:00 p.m.
Friday
Arrive no later than 2:00 p.m.
First Saturday of Each Month 8:00 a.m. to noon
(Every Saturday in July and August.)
Arrive no later than 9:15 a.m.

- A photo ID is required to test.
- Please note, there is no food or drink permitted in the lab.

For everyone's safety, there are no children permitted in the lab, and the College does not provide child care for this purpose.
Please allow one-and-a-half hours for testing. Any questions regarding the $\mathrm{ACT}^{\top}{ }^{\text {M }}$ COMPASS/ESL Placement Test should be directed to Room 196 Main Building or telephone (513) 569-4740.

## Post-Secondary Enrollment Options Program (PSEO) 9th, 10th, 11th and 12th grades

As provided for in Senate Bill 140 \& HB215 and amended by Substitute HB282.

## Purpose

I. PSEO provides qualified 9th through 12th grade high school students who attend public and chartered non-public Ohio high schools, the opportunity to enrich their educational experience by enrolling in college-level coursework. The program is intended to provide expanded opportunities for qualified high school students to experience coursework at the college level. Any high school student admitted to a course is required to perform at the same level as Cincinnati State's regular students.
Important dates: By March 7, the school district notifies students and parents about the PSEO program. By April 14, the student informs school district of intent to participate in the PSEO program.
II. A. All 9th, 10th, 11th and 12th grade students who wish to enter Cincinnati State for college and/or high school credit should submit the following items:

1. For each academic year, PSEO applicants must apply and have all credentials on file no later than: Public Schools: June 20 for Early Fall \& Late Fall term, November 21 for the Winter \& Spring term. Non-Public Schools: March 15 for all terms. (PSEO does not qualify for the Summer term.) Please refer to the PSEO Application for exact dates.
2. A letter of recommendation from the high school counselor attesting to the student's academic and social readiness to enter college courses. This must be mailed directly from the high school to the Office of Admission Records.
3. An official copy of the high school transcript mailed directly from the high school to the Office of Admission Records. (All 9th grade proficiency tests must have been passed.)
B. All PSEO applicants need to complete the $A C T^{\top M}$

COMPASS/ESL Placement Test administered on the Cincinnati State campus. Hours of testing are:
Monday through Thursday 8:00 a.m. to 8:00 p.m.
Arrive no later than 6:00 p.m. Friday

Arrive no later than 2:00 p.m.
First Saturday of Each Month
Arrive no later than 9:15 a.m.
Please allow approximately one-and-a-half hours for testing within the scheduled hours. No reservations required. Each applicant may only test once, retesting is not permitted.
C. Admission to the PSEO program is based upon the completed Application for PSEO and qualification for collegelevel courses as indicated by the COMPASS/ESL test scores. Students must demonstrate college-level mastery in all areas. Students cannot enroll in Developmental Education courses under the program.
D. All students who are accepted in the post-secondary enrollment options program at Cincinnati State are required to include a parent/guardian at the initial registration meeting. This meeting will include a review of the College's academic procedures, practices, and policies.
E. High school counselors are responsible for explaining the equivalency, or lack of equivalency, of a given course at Cincinnati State in meeting high school graduation requirements. High school counselors must enter recommended/ approved courses on the PSEO application.
F. Students must see the PSEO advisor prior to registration each term to prepare a schedule for the term. These registrations will not be processed until one week before classes begin.
G. To remain eligible for the PSEO program, students are required to successfully complete coursework and earn a minimum 2.5 GPA after 12+ credit hours. Home School - In order to qualify for PSEO consideration, home schooled students must be registered with their local district prior to submission of the PSEO application.
Cincinnati State reserves the right to review the final selection of college classes approved by the high school, and to limit participation in any class based on such circumstances as extraordinary lab fees, age, safety issues, excessive course load, or academic probation. High school students are not eligible to receive state or federal financial aid.
For additional information and/or application contact the Office of Admission, (513) 861-7700.

## Financial Information

## Student Expenses

The Ohio Board of Regents (OBR) provides a state share of instructional subsidy to Cincinnati State Technical and Community College for each Ohio resident enrolled. The amount received from the Regents is less than one-half of the College's operating costs. The balance must come from tuition payments and other sources. Out-of-state students pay a higher tuition since the College does not receive a subsidy for their instruction. (See the end of this section for complete explanation of residency determination.)

## Schedule of Fees*

Tuition includes instructional fee, general fee, and other non-instructional service fees. Non-resident fees includes a non-resident surcharge.

| Tuition per credit hour | Ohio Resident <br> $\$ 80.20$ |  |
| :--- | :--- | :--- |
| $\$ 160.40$ |  |  |



## Cooperative Education Employment

Please refer to the specific curriculum to determine exact co-op credits required. Charges for co-op credit must be paid in advance on the established registration date.

## Books and Supplies

The cost of books and supplies can vary from term to term. Also, different programs have different requirements. Students in the engineering technologies, for example, generally will spend more on supplies and equipment than the businessoriented programs.
The first school term usually is the most expensive one as students purchase books and supplies at that time that they also use in later terms. The average expense for books and supplies is $\$ 250$ per term.

## Senior Citizens

Tuition fee waivers are available for senior citizens who register to audit courses on a space-available basis during openregistration periods. The waiver covers the in-state tuition fee. Senior citizens must pay all other fees. Waivers are not applicable to non-audited courses nor non-credit courses A senior citizen is defined as a student who is sixty years of age or older at the time of registration.

## Refund of Tuition Charges

Students are responsible for paying all charges incurred as a result of registering for classes. The College will not drop a student's classes nor reduce tuition charges/fees due to a student's non-payment of those charges. Students may receive a fee reduction for classes by formally withdrawing from those classes for any reason. The amount of the fee reduction is based upon the date of withdrawal and calculated according to the College's published refund schedule. Refunds are disbursed to the student or/and a third-party payor. Refund checks are mailed to students within 14 days of financial aid disbursal.

1. Requests for refunds will be considered only if the student officially withdrawals from the course. Students may utilize the online Registration function of mySERVICES to drop courses up to the calendar day before the term begins. The online option to drop a course is not available once the term begins. Students may also withdraw from a course at any time by completing and signing the official College drop/add form form available in the Registrar's Office.
2. The Admissions fee is not refundable.
3. The following fees are not refundable unless the College cancels all classes for which the student registers:

Registration fee
Technology/Activity fee
Facilities fee
Extended Payment fee
Late Registration/Payment fees
4. The College's refund schedule is as follows:

Refunds for dropped classes processed in the Registrar's Office before the first day of the term are calculated at a rate of $100 \%$ refund of the in-state or out-of-state tuition and course/lab fee for the dropped class.

Refunds for dropped classes processed in the Registrar's Office from the first day of the term through the seventh calendar day of the term will be calculated at a rate of $100 \%$ refund of the in-state or out-of-state tuition and course/lab fee only for the dropped class.

Refunds for dropped classes processed in the Registrar's Office from the eighth to fourteenth calendar day of the term are calculated at a rate of $50 \%$ refund of the in-state or out-ofstate tuition fee and course/lab fee for the dropped class. There is no reduction of charges for courses dropped after the fourteenth calendar day of the term.
5. Flexibly scheduled courses: Courses which have a beginning or/and ending date different than the first and last weeks of the normal term schedule are considered flexibly scheduled and will have a prorated refund period applied to them. A $100 \%$ refund is applicable to a flexibly scheduled course dropped in the first $11 \%$ period of that course's term. A $50 \%$ refund is applicable to a flexibly scheduled course dropped in the $12 \%$ to $22 \%$ period of that course's term. No refund is applicable after the $22 \%$ period of the term.
6. Course cancellation: A refund of $100 \%$ will be made to a student who has registered for courses that have been cancelled by the College (if the student does not change to another course).
7. Refunds for students whose registration bill was paid by third-party funding (financial aid, agency) are applied toward reimbursing the third-party before any disbursement to the student.
8. If a student owes a financial obligation to the College, the refund will be applied toward payment of the balance due before any disbursement to the student.
9. Students who do not follow the established dropped-class procedures of the College will not be eligible for a refund.
10. Students who have questions concerning refunds may direct those questions to the College Cashier's Office.
11. Appeals to this refund policy may be filed by completing/ submitting an Appeal form that is available at the College Cashier's Office.

## Non-Attendance of Classes

1. Instructors are required to document student attendance in each course meeting through the first two (2) weeks of the term.
2. From the first day of the term until the First Day to Withdraw for the term, students who drop or withdraw from a course must identify whether or not they attended the course section.
3. A student who enrolls in a course but does not attend the course within the first two weeks will be designated a No Show (NS) and dropped from the course by the instructor.
4. If there is a discrepancy between a student's self-reported attendance status and the attendance status reported by an instructor, the attendance status reported by the instructor will be the status of record.
5. Students are not permitted to begin attending a course section after a No Show (NS) has been issued by the instructor or self-reported by the student for that course section.
6. The designation of No Show (NS) will not appear on the student's transcript.
7. A student who receives a No Show (NS) designation for a course is still financially responsible for payment for the course. State and Federal Financial Aid is not applicable to a course for which a student has received a No Show (NS) designation.
A student is not permitted to withdraw from a course he or she did not attend or to which a No Show (NS) has been assigned.

CINCINNATI STATE TECHNICAL AND COMMUNITY COLLEGE RESERVES THE RIGHT TO REVISE THIS STATEMENT OF TUITION REFUNDS AT ANY TIME.

## Ohio Residence for Tuition Surcharge Purposes

Tuition is charged on the basis of residence in the State of Ohio and residence outside of the State of Ohio. A student with a question of their right to claim legal residence in the State of Ohio for educational purposes may request the College review their residency status. The student initiates the review process by submitting a completed Review of Residency Form to the Office of the Registrar. The Review of Residency Form should
be submitted to the Office of the Registrar at least five working days prior to the beginning of the term in which the student plans to enroll.
Proof of residency will be required when requesting a review of residency. An Ohio Driver's License or Ohio State Identification Card is required. A lease, deed, or notarized letter to validate living in the state is required. Proof of paying Ohio income tax; bank statements; voter registration card; employment letters all can be considered as support documents to validate residency status. Other documents as needed may be requested.

## General Residency Guidelines

1. The following persons shall be classified residents of the state of Ohio for tuition surcharge purposes. (Documentation supporting the student's request for being classified as an Ohio resident will be required).
a. A dependent student, at least one of whose parents or legal guardian has been a resident of the state of Ohio for all other legal purposes for twelve consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.
b. A person who has been a resident of Ohio for the purpose of this rule for at least twelve consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and had not directly or indirectly received in the preceding twelve consecutive months, financial support from other persons or entities who are not residents of Ohio for all other legal purposes.
c. A dependent child of a parent or legal guardian, or the spouse of a person who, as of the first day of the 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. Documentation will be required. Residency status will be lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside of Ohio less than twelve months after accepting employment and establishing domicile in Ohio.
d. A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for tuition surcharge purposes.
e. A person who enters and currently remains on 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 as long as Ohio remains the state of such person's domicile.
f. A person on active duty status in the United State military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio.
2. A dependent person classified as a resident of Ohio for these purposes as a result of (1) (a) listed above and who is enrolled in an institution of higher education when his/her parents or legal guardian removes their residency from the State of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic program.
3. In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of twelve months following such removal, constitute
relinquishment of Ohio residency status otherwise established under items (1)(a) or (1)(b) listed above.
4. A person transferred by his or her employer beyond the territorial limits of the fifty 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 for these purposes as long as Ohio remains the state of such person's domicile and as long as such person has fulfilled his or her tax liability to the State of Ohio for at least the tax year preceding enrollment.
5. 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 for at least four months during each of the three years preceding the proposed enrollment.
6. Any person once classified as a non-resident, upon the completion of twelve consecutive months of residency, must apply to the institution he or she attends for reclassification as a resident of Ohio for theses purposes if such a person in fact wants to be reclassified as a resident. Should such a person present clear and convincing proof that no part of his or her financial support is or in the preceding twelve months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such a person shall be reclassified as a resident.
7. 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.
8. Evidentiary determinations under this rule shall be made by the institution which will require the submission of documentation regarding the sources of a student's actual financial support and other documentation. Criteria which may be considered in determining residency for tuition purposes may include, but are not limited to:
a. Criteria evidencing residency:
1) if a person is subject to tax liability under section 5747.02 of the Revised Code;
2) if a person qualifies to vote in Ohio;
3) if a person is eligible to receive state welfare benefits;
4) if a person has an Ohio Driver's License and/or motor vehicle registration
5) if a person has a signed and binding lease/deed to a domicile in the State of Ohio;
b. Criteria evidencing lack of residency:
6) if a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);
7) if a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of welfare benefits i.e. driver's license, etc.

IMPORTANT: An individual's immigration status will affect his or her ability to obtain resident status for tuition purposes. Contact the Office of the Registrar at (513) 569-1522 for more information.

Additional information and guidelines concerning Residency are available in the Office of the Registrar.

## Tuition Reciprocity for Northern Kentucky Residents

Cincinnati State Technical and Community College does not charge out-of-state tuition to residents of Boone, Bracken, Campbell, Carroll, Gallatin, Grant, Kenton, and Pendleton Counties in Kentucky who are approved to enroll at Cincinnati State under the reciprocity agreement between Ohio and Kentucky. To qualify for reciprocity, students must be admitted to Cincinnati State as degree-seeking (matriculated) students and enroll in eligible associate degree programs. To be admitted a student must submit an admission application, have high school and college (if applicable) transcripts mailed to Cincinnati State, and complete the placement test. Certificate programs are excluded from this tuition reciprocity agreement.
This same reciprocity agreement enables graduates of Cincinnati State who are residents of Butler, Clermont, Hamilton, and Warren Counties in Ohio to enroll in certain baccalaureate degree programs at Northern Kentucky University and pay Kentucky resident tuition rates. Graduates must satisfy all NKU regular transfer admission requirements, including any requirements of the specific baccalaureate program.

## Financial Aid

At Cincinnati State the goal of the Office of Financial Aid (OFA) is to enable access to higher education by providing college financial planning and quality customer service to students and families in pursuit of their educational goals. Cincinnati State awards over thirty million dollars annually from federal and state financial aid programs, private donors and the College's own funds to some 15,000 students. More information on financial aid can be found on our Web site located at: http://www.cincinnatistate.edu/CurrentStudent/FinancialAid.
Financial aid is money in the form of scholarships, grants, loans and employment (work-study). Most scholarships do not have to be repaid. Some scholarships, however, are awarded to students who promise to teach or perform some other service when they finish school. Grants are typically awarded on the basis of financial need and do not have to be repaid. Loans are borrowed money that has to be PAID BACK over a period of time, usually after the student leaves school. Work-study is money that students earn by working at a part-time job.
Generally, financial aid is awarded to students based on need. One of the principles behind awarding need-based financial aid is that students and their families should pay for educational expenses to the extent they are able. A family's ability to pay for educational costs must be evaluated in an equitable and consistent manner. To be fair to everyone, a standard federal formula is used to calculate a student's Expected Family Contribution (EFC). The information is derived from the student's completed Free Application for Federal Student Aid (FAFSA). Financial need is the difference between a student's total annual educational expenses and the amount the student and his or her family is expected to contribute toward those expenses. A student's need for financial assistance will differ from school to school because the cost of attendance will differ.
All financial aid is awarded according to federal, state, and institutional guidelines. Please see the section on eligibility criteria for more information. Financial Aid is disbursed to students after the processing of no-show rosters has been completed.

Please see the section on eligibility criteria for more information.
Students participating in a study abroad program should contact the Office of International Affairs at (513) 569-4696, or stop by the office located in Room 168 Main Building.

## Office Hours (and phone hours)

The Office of Financial Aid is open 8:00 a.m. to 5:00 p.m. Monday through Friday.

## How To Apply

Each year, beginning January 1, students need to complete the Free Application for Federal Student Aid (FAFSA). The FAFSA includes all the information necessary to determine the student's Expected Family Contribution (EFC). The FAFSA must be completed for consideration of most federal student aid programs. Many states, including Ohio and Indiana, use the FAFSA to award state aid. Students automatically receive a RENEWAL FAFSA in subsequent years that contains a summary of the information reported on the prior year FAFSA from the Department of Education.
The FAFSA may be accessed from our Web site at or at the Department of Education's Web site located at http://www.fafsa.ed.gov. Be sure to first apply for a PIN number at http://www.pin.ed.gov and it will be sent to your email address within 48 hours. Students must provide the federal school code number for each school where they want their FAFSA results sent. The federal school code number for Cincinnati State is 010345.
To receive maximum consideration for certain programs, including the Federal Supplemental Educational Opportunity Grant (SEOG), and Federal Work-Study (FWS), students should submit their FAFSA forms by February 15 of each calendar year. Once a FAFSA is submitted, students receive an email with a Student Aid Report (SAR). Students should keep all parts of their SAR. The College will receive the results of each student's FAFSA electronically in about two weeks. Any changes to a SAR should be submitted at http://www.fafsa.ed.gov.
Students will receive email notification from the Office of Financial Aid (OFA) when any further documentation is needed or their award is ready to be viewed on myCSTATE.

## Eligibility Criteria

To receive financial aid from the federal financial aid programs, students must:

- have financial need,
- have a high school diploma or General Education Development Certificate (GED),
- be enrolled or accepted for enrollment as a regular student working toward a degree or certificate in an eligible program,
- be a U.S. citizen or eligible non-citizen,
- have a valid Social Security Number,
- sign a statement on the FAFSA certifying that all federal student aid will be used only for educational purposes,
- not be in default on a federal student loan or owe money back on a federal student grant,
- register with the Selective Service, if required,
- make Satisfactory Academic Progress (SAP) (see later in the catalog a more detailed description, and
- not have been convicted for any illegal drug offense while receiving federal financial aid funds.

Other general financial aid information you should know:

- financial aid awards are adjusted appropriately for changes in a student's enrollment status between terms;
- to be eligible for federal student aid, students must enroll and attend classes in which they are registered. The Office of Financial Aid is required to recalculate a student's financial aid award(s) to reflect only those classes for which the student actually begins attendance.
Detailed information on these and other financial aid eligibility criteria may be obtained from the Office of Financial Aid.


## Types of Aid

## Federal Pell Grant

Pell Grants are awarded to undergraduate students who have not earned a bachelor's or professional degree and demonstrate financial need. The annual maximum Pell Grant is determined, each year, by the federal government. Pell Grants may be awarded to both full and part-time students and are pro-rated based on attendance.

## Academic Competitiveness Grant (ACG)

Academic Competitiveness Grants are awarded to full time undergraduate students who have completed a rigorous secondary school (example: high school) program of study after January 2005.

## Supplemental Educational Opportunity Grant - SEOG

SEOG is for undergraduate students with exceptional financial need and who are eligible to receive a Pell Grant. Priority for SEOG at Cincinnati State is given to students who have a completed financial aid file by April 1 of each year. Funding is limited and is awarded based on the availability of funds. SEOG may be awarded to both full and part-time students and are prorated based on attendance.

## Federal Work-Study

Federal Work-Study provides jobs for students with financial need allowing them to earn money to help pay for educational expenses. The amount a student may earn may not exceed the Work-Study award. When assigning work hours, supervisors will consider a student's class schedule, Work-Study award amount, and employer needs. Work-Study awards are offered first to students with exceptional financial need. Priority is given to students who have a completed financial aid file by April 1 of each year. Funding is limited and is awarded based on the availability of funds. This program is intended to help train students for the labor market as well as meet their financial needs.

## Federal Stafford Loan Program

Federal Stafford loans (subsidized and unsubsidized), are lowinterest loans made to students attending school on at least a halftime basis. At Cincinnati State, half-time means enrolled for at least six credit hours per term. Students are not required to make payments on subsidized or unsubsidized loans while in at least half time (six or more credit hours). However, students are required to make payments on the interest that accrues, while in school at least half time, on an unsubsidized loan. An option to have the interest capitalized on an unsubsidized loan is available.

At Cincinnati State, ALL first-time borrowers are required to complete an on line loan entrance counseling session in order to receive the first disbursement of their loan proceeds for the academic year. Students access the loan counseling session at http://www.cincinnatistate.edu/Current Student/FinancialAid. The Office of Financial Aid will send a letter to students when their loan counseling session and Master Promissory Note (MPN) are ready. For first-time borrowers at Cincinnati State, loan proceeds are delayed for the first 30 days of the loan period. Students must maintain their eligibility during this period. The purpose of these mandatory loan counseling sessions is to ensure that all student borrowers:

- review and understand their loan repayment obligation
- anticipate their average monthly repayment amount
- remember to update their lender/guaranty agency with any address or other pertinent change
- review the deferment, forbearance and cancellation conditions of their loan, and
- review the consequences of delinquency and default of a student loan.


## Federal Plus Loans - Loans for Parents

PLUS loans enable parents (of dependent students) with good credit histories to borrow funds to help pay their child's educational costs. The student, for whom a PLUS loan is borrowed, must be attending school on at least a half-time basis. To apply parents should complete a prescreening for eligibility at http://www.parentanswer.com or http://www.cincinnatistate. edu/Current Student/FinancialAid and alert the Office of Financial Aid of their status.

## Ohio Student Aid Programs

The Ohio Board of Regents (OBR) administers several state financial aid programs providing assistance to college students based on a variety of criteria ranging from need to academic achievement. For more information on these programs, visit the OBR Web site at http://www.regents.state.oh.us.
Ohio Instructional Grant/Ohio College Opportunity Grant The Ohio Instructional Grant (OIG) and Ohio College Opportunity Grant (OCOG) programs provide financial assistance to needy Ohio students attending Ohio and Pennsylvania schools as full-time undergraduate students. Students from families with incomes below a certain threshold, as established each year by the OBR, are eligible. To receive an OIG or OCOG, eligible students must be enrolled in an eligible degree granting program. Students enrolled in a certificate program are not eligible for OIG or OCOG. Students may receive OIG or OCOG for a maximum of 15 terms, limited to four terms per academic year at Cincinnati State. Students apply for OIG and OCOG by completing the annual FAFSA by October 1 of each year. Students are not eligible for both OIG and OCOG.
Part-Time Student Instructional Grant - The part-time Ohio Instructional Grant program provides financial assistance to needy Ohio undergraduate students attending Ohio schools on a part-time basis. Part-time Ohio grant dollars are limited.
Ohio Academic Scholarship - The Ohio Academic Scholarship program provides scholarships for up to four years for academically outstanding Ohio high school graduates on a competitive basis. The program's objective is to encourage Ohio students to attend an Ohio college or university. Ohio's academically top-ranked students are eligible and should contact their high school guidance counselor for more information
or go to the OBR Web site located at http://regents.ohio.gov for more information.
Ohio War Orphan's Scholarship - The Ohio War Orphan's Scholarship program provides reimbursement for undergraduate instructional fees waived by state-assisted institutions on behalf of eligible students. The children of disabled or deceased veterans who served in the military during a period when the U.S. was at war, are eligible to apply. Please go to the OBR Web site located at http://regents.ohio.gov for more information and to apply.

## Nurse Education Assistance Loan Program-NEALP -

The purpose of the NEALP is to provide financial assistance to students enrolled in approved nurse education programs in Ohio schools and to encourage students to remain in Ohio as they enter the nursing profession. NEALP loans are limited to $\$ 3,000$ per year for a maximum of three years or $\$ 12,000$ total loan balance. After graduation from an approved nurse education program, a borrower may be eligible for debt cancellation at a rate of 20 percent per year for a maximum of four years ( 80 percent) if the borrower is employed in the clinical practice of nursing in the State of Ohio. To be eligible for a Nurse Education Assistance Loan, an applicant must: be enrolled in an approved Ohio pre-licensure or post licensure LPN or RN nurse education program, not owe a refund or be in default on any education loan, and maintain good academic standing. Students preparing for the following nursing professions are also eligible to receive Nurse Education Assistance Loans: Certified Nurse Practitioner, Certified Registered Nurse Anesthetist and Certified Nurse Midwife. Please go to the OBR Web site located at http://regents.ohio.gov for more information and to apply.
Tuition Waiver for the Children of Fire Fighters and Peace Officers Killed in the Line of Duty - The tuition waiver for the children of fire fighters and/or peace officers killed in the line of duty provides a waiver of undergraduate instructional fees at state-assisted colleges. Please go to http://regents.ohio.gov for more information and to apply.

## Indiana Student Aid Programs

Frank O'Bannon Grant Program (formerly Indiana State Grant Program) - Residents of Indiana are eligible to use their Frank O'Bannon State Grant award for attendance at Cincinnati State. Students apply for the Frank O'Bannon State Grant by completing the FAFSA by March 1 of each year. Applications received after March 1 are generally not considered.
Indiana Contract for Space Grant Program - Each year the State of Indiana and Cincinnati State contract to pay the cost of out of state fees for three terms of attendance each year at Cincinnati State for some Indiana students. To be eligible for tuition assistance from the Indiana Contract for Space Program, a student must reside in one of the following six Indiana counties: Dearborn, Franklin, Jefferson, Ohio, Ripley or Switzerland. Students must also be accepted for admission and enrolled in a program leading to an associate's degree. A separate Indiana Contract for Space Grant Application must be completed each year and is available at the Web site http://www.cincinnatistate. edu/CurrentStudent/FinancialAid. Funds are limited. Students are encouraged to apply as soon as possible after January 1 of each year.

## Cincinnati State Scholarship Program

The purpose of the scholarship program at Cincinnati State is to acknowledge and reward high academic achievement by helping deserving students finance their college educational costs. The Cincinnati State scholarship application deadline date is March 1 of each calendar year. RECIPIENTS OF A SCHOLARSHIP FROM CINCINNATI STATE MUST REAPPLY EACH YEAR. Eligibility requirements include:

- U. S. citizenship
- enrolled or accepted for enrollment into a degree or certificate program
- minimum grade point average of 3.0
- for new students, have ranked in upper $20 \%$ of their high school graduating class
- for continuing students, have completed a minimum of 12 credit hours at Cincinnati State
- for need-based applicants, have applicable FAFSA results on file
- two letters of recommendation

Students who complete all requirements to apply for a scholarship by the due date will be considered for all scholarships for which they are eligible. The number and type of scholarships vary from year to year depending on donations received for the scholarship program.

## Private ("Outside") Scholarship Opportunities

The public library is an excellent source of information on private sources of financial aid. Many companies have programs to help students pay for post-secondary educational cost for employees and their family members. In addition, financial assistance is available from many foundations, religious organizations, fraternities, sororities, town and city clubs, local school boards, and civic groups. This information is FREE. There are FREE online scholarship search programs accessible via the internet. Students are invited to visit the Cincinnati State Office of Financial Aid Web site located at http://www.cincinnatistate. edu/CurrentStudent/FinancialAid for access to one of the largest FREE online scholarship search programs called FASTWeb or visit http://www.fastweb.com! Students are also encouraged to review the Scholarship Bulletin Board located outside the Financial Aid Office for up-to-date scholarship opportunities.

## Staff and Dependent Tuition Waivers

Staff and Staff Dependents are eligible for tuition waivers at Cincinnati State.

| Type | Covered |  |
| :--- | :--- | :--- |
| Staff/Faculty | Not Covered <br> Tuition | Fab Fees <br> Facility Fee |
| Staff/Faculty <br> Dependent | Tuition | All Fees |
| Adjunct | Tuition <br> Faculty | All Fees |
| (only for term in which the adjunct teaches) |  |  |
| Adjunct Faculty | $1 / 2$ Tuition | All Fees |

Part Time Staff Tuition All Fees
for two courses per term

## Alumni Gathering

Alumni who attend an Alumni Gathering are eligible to receive tuition only for a three credit-hour class.

## How Awards are Calculated

Students are assigned a Cost of Attendance (COA) based on tuition, fees, transportation and other living expenses.

| In State | Independent | Dependent |
| :---: | :---: | :---: |
|  | 5 terms | 5 terms |
| Tuition \& Fees | \$6,092.00 | \$6,092.00 |
| Living Expenses | 8,100.00 | 4,050.00 |
| Books | 2,000.00 | 2,000.00 |
| Transportation | 1,500.00 | 1,500.00 |
| Personal | 3,000.00 | 3,000.00 |
| Facility Fee | 275.00 | 275.00 |
| Tech Fee | 125.00 | 125.00 |
|  | \$21,092.00 | \$17,042.00 |
| Out of State | Independent | Dependent |
|  | 5 terms | 5 terms |
| Tuition \& Fees | \$10,90.00 | \$10,904.00 |
| Living Expenses | 8,100.00 | 4,050.00 |
| Books | 2,000.00 | 2,000.00 |
| Transportation | 1,500.00 | 1,500.00 |
| Personal | 3,000.00 | 3,000.00 |
| Facility Fee | 275.00 | 275.00 |
| Tech Fee | $\underline{125.00}$ | 125.00 |
|  | \$28,259.04 | \$22,218.54 |

Awards are calculated using the following formula:
COA minus (-) EFC equal (=) Need
A Student's COA is pro-rated based on the number of terms enrolled.
Student's aid cannot exceed the assigned COA. Need based aid (ie: pell grant, SEOG, subsidized Stafford loans, work-study, and state grants) are assigned first to students based on their Expected Family Contribution (EFC), priority filing (if necessary) and federal limits. Then, non need-based aid (ie: Unsubsidized Stafford loans, PLUS loans) are assigned to students by subtracting the need based aid from the COA, and using the federal limits, to award aid for the difference. If a student received any other funding source (ie: NEALP, scholarships) the student's award must be re-adjusted to ensure the award does not exceed the COA. For the student's benefit, aid will be adjusted in the following order:

1. PLUS Loan
2. Unsubsidized Loan
3. Subsidized Loan
4. Federal Work-Study (any unearned amount)
5. SEOG

Based on a student's COA, EFC, scholarship awards, and eligibility, each student's awards will look very different.

## Enrollment of Less than Half Time and Loans

Students must be enrolled for at least half time (six credit hours) to be eligible for loans. Any time a Stafford loan-borrowing student withdraws to less then six credit hours, takes off a term, or enrolls less than half time, exit counseling is required. Even though a student may intend to return to Cincinnati State within at least six credit hours, the student is required by Federal Regulations to complete exit counseling as their repayment deferment time period has begun. Students may complete exit counseling http://www.cincinnatistate.edu/CurrentStudent/ FinancialAid.

## Official and Unofficial Withdrawal Policy for Financial Aid Recipients and The Return of Title IV Funds (R2T4)

The Higher Education Act of 1998, as amended, substantially changed the way funds are to be handled when a recipient of Title IV (federal) funds completely withdraws (officially or unofficially) in a given term. The Department of Education (ED) regulations require that students earn their eligibility for Title IV funds through attendance in classes. If a Title IV recipient ceases to be enrolled prior the end of the term, the student's eligibility for Title IV funding must be recalculated. The recalculation process (R2T4) may require that portions of the Title IV funding be returned to the funding source.

## Official Withdrawals

Upon dropping all classes for any given term, a student is considered to have officially withdrawn from Cincinnati State, even if future enrollment is anticipated. To officially withdraw, a student MUST submit the Course Withdrawal Form to the Registration Office. A student who completely withdraws after the 14th day of the term will be subject to a Return of Title IV Funds (R2T4) calculation and will have to return a pro-rated portion of their financial aid to Cincinnati State.

## Unofficial Withdrawals

The official withdrawal date that is used to determine the prorata schedule is the date the student signs and submits the Course Withdrawal Form. Students who do not officially withdraw from the college will be considered an unofficial withdrawal if she/he receives a failing grade (" F ") in ALL classes for which the student was registered in the term and began class attendance. A student can appeal this unofficial withdrawal status to the Office of Financial Aid in ten working days of the date official notification was sent to the student. The student must in her/his appeal provide documentation, which can be confirmed by the instructor, Dean or Assistant Dean of the applicable division. The following are acceptable forms of such documentation: exams, records of attendance, tutorials, computer-assisted instruction, counseling, academic advisement, or study groups. The withdrawal date for a student considered an unofficial withdrawal will be the midpoint of the term for which Title IV funds were disbursed unless proved otherwise through the appeal process.

## Earning Financial Aid

Although financial aid is disbursed to a student that meets certain eligibility criteria, Cincinnati State is obligated to ensure that students earn this money by attending classes. Regulations dictate that a pro-rata schedule be used to determine the amount of Title IV funds a student has earned when he or she completely withdraws after commencing attendance in a given term. Up through the $60 \%$ point in each payment period (term), a pro-rata schedule is used to determine how much Title IV funds the student has earned at the time of the withdrawal. After the $60 \%$ point in the payment period (term), a student has earned $100 \%$ of the Title IV funds.

## Late Disbursements and Title IV Refunds

If a student receives less Title IV program funds than the amount earned, the college must comply with the procedures for late disbursement specified by the Department of Education (ED) regulations by disbursing the amount of grants earned by the student. If a student receives more Title IV program funds than the amount earned, the college will return the unearned funds, as required and in the order specified, to the Title IV program(s). The student will owe the amount returned to the College and must pay this amount before registering for any subsequent terms or make satisfactory repayment arrangements with the College Bursar's Office.

## Tuition Charges

Students that completely withdraw from classes during a given term, or that fail all classes in a given term, are still required to pay any and all charges for that term. Although financial aid may be reduced, charges for the term will not be reduced.
Refunds on behalf of a Title IV aid recipient must be distributed in the following order:
(1) Federal Unsubsidized Stafford
(2) Federal Subsidized Stafford
(3) Federal PLUS (Parent Loan)
(4) Federal Perkins Loan
(5) Federal Direct Unsubsidized Stafford Loans
(6) Federal Direct Subsidized Stafford Loans
(7) Federal Perkins Loans (Cincinnati State no longer participates in this program)
(8) Federal Pell Grant
(9) Federal SEOG
(10) Other federal, state, private or institutional sources of aid
(11) Student

Repayments from Title IV recipients must be distributed as follows:
(1) Federal Perkins Loans
(Cincinnati State no longer participates in this program)
(2) Federal Pell Grants
(3) Federal SEOG
(4) Other Title IV programs
(5) Other federal, state, private or institutional sources of aid

## Cincinnati State

 Office of Financial Aid Standards of Academic Progress (SAP) Policy
#### Abstract

IT IS THE RESPONSIBILTY OF THE STUDENT TO READ, UNDERSTAND AND ADHERE TO THIS POLICY. FAILURE TO COMPLY WITH THIS POLICY MAY RESULT IN CANCELLATION OF STATE AND/OR FEDERAL FINANCIAL AID, FULL OR PARTIAL REPAYMENT OF THE FINANCIAL AID.


Students who receive state and/or federal financial aid are required to make Satisfactory Academic Progress (SAP). SAP is measured by completing a required percentage of credit hours, completing one degree within a maximum time frame, attempting a maximum amount of DE/Pre-Tech credit hours, and maintaining a minimum grade point average (GPA).
SAP will be reviewed each term for financial aid recipients. Students who fail to meet all conditions of SAP will either be terminated from receiving State and Federal financial aid or be put on probation, depending on how many credit hours have been attempted and if there is a pattern of not meeting SAP (see Probation/Termination below).

## Definitions

## Attempted Credit Hours

Attempted credit hours are those that are not dropped before then end of the $100 \%$ refund period. A status of " A ", " N ", " D ", " I ", or " W " count as attempted. A grade of " $A$ ", " $B$ ", " $C$ ", " $D$ ", " S ", " U ", or " F " also count as attempted.

## Completed Credit Hours

A grade of "A", " $\mathrm{B}^{\prime}$, " C ", " S ", or " D " count as a completed course.

## Measures

Completion Percentage Standard - Students must complete $67 \%$ of the credit hours (Not including DE/pre-tech credit hours) that are attempted (\# of credit hours attempted / \# of credit hours completed). Attempted credit hours are those that a student registers for without dropping during the $100 \%$ refund period. A status of I, W, D, count as an attempted class. A grade of F counts as an attempted class. Completed classes are those in which a student receives a D, C, B, or A.
Maximum Time Frame Standard - Students may attempt 150\% of the credit hours required for one degree program at Cincinnati Sate. After $150 \%$ has been attempted, students have exhausted the maximum time frame to complete a degree and therefore will no longer be eligible to receive financial aid at this institution. For instance, if the published requirement of a degree program is 108 credit hours, a student may receive financial aid for up to 162 credit hours ( $108 \times 150 \%$ ) to complete a degree. Transfer credit hours that apply to your degree program count toward the maximum time frame. (This cannot be appealed.)
Maximum DE/Pre-Tech - Students may only take up to 45 credit hours of remedial courses (DE/pre-tech), after which financial aid is only granted for non-remedial courses. (This cannot be appealed.) (This MAY not terminate all of your aid, but only aid toward your DE classes.)

Minimum GPA - Students must maintain a 2.0 cumulative grade point average. Remedial (DE/pre-tech) coursework does not count in your cumulative GPA.

## Special Conditions

English as a Second Language (ESL) Courses - Enrollment in these courses will not count against the $150 \%$ maximum time frame. These courses count towards the maximum credits allowed for DE courses.
Repeated Courses - The highest grade recorded in a repeated course is the grade of record at Cincinnati State and will be used in computing the student's grade point average. Both courses will count towards the student's institutional hours attempted, but only the hours associated with the last grade will be counted as completed hours.
Transfer Students - Credit hours that transfer in to Cincinnati State will count in the total number of institutional credit hours attempted and completed. Transfer students are subject to all measures of SAP as a non-transfer student.
Audits - Audited courses do not count towards hours attempted or hours completed. Students may not receive aid for auditing a course.
Fresh Start and Academic Forgiveness - Students who receive Fresh Start or Academic Forgiveness are not exempt from meeting SAP. All credit hours attempted and completed, as well as GPA, must be taken into consideration in determining SAP for financial aid purposes.
Re-Entry - Students who return to Cincinnati State following any length of separation are subject to meeting SAP for any and all terms of enrollment at Cincinnati State.
Prior Enrollment Without Financial Aid - Those students who previously did not use financial aid are not exempt from meeting SAP. All credit hours attempted, completed, as well as GPA, must be taken into consideration in determining SAP regardless of previous financial aid status.
Change of Majors/Double Majors - Students who decide to change their major or double major while enrolled at Cincinnati State are subject to all provisions of SAP. Attempted and completed credit hours, as well as GPA for all majors, must be taken into consideration in determining SAP.

## Probation/Termination

Termination - Students who are not meeting SAP will have their state and federal aid terminated. All aid for current and future terms will be terminated until the student is meeting all provisions of SAP, or has an approved appeal.
Probation - Students who are in danger of not meeting SAP will be placed on probation. A student will be allowed aid for the current term; however, all future aid will be placed on hold pending a review of their status each term. When the student is meeting standards or no longer in danger of falling below standards then their aid will be taken off hold. When the student is in a termination category, as defined above, their aid will be terminated. It is the responsibility of the student to contact their advisor to have their progress reviewed each term.

## Appeals

Students have the right to appeal their financial aid status if they do not meet the requirements of this policy (except for the maximum time frame standard and the DE maximum standard).
Appeals are for documented extenuating circumstances only! Examples of extenuating circumstances include a medical emer-
gency, or a family emergency. All appeals must be legibly handwritten or typed, and submitted to the Office of Financial Aid Appeals Committee with supporting documents/reason for not meeting SAP, as required. Students who appeal are encouraged to present at least one letter of support from an unrelated third party, their academic advisor or another faculty/staff member familiar with their situation, as well as provide enough supporting documentation to substantiate the extenuating circumstance. Students who wish to complete a second major at any time, must provide an appeal stating why the second degree is necessary for career attainment and a degree audit. Students without adequate documentation will not be approved in the appeal process.
Appeals will be considered by the Office of Financial Aid Appeals Committee. The committee will then determine if the student is eligible to continue receiving state and federal financial aid, based on the documents provided, and under what conditions the student may receive aid. If the appeal is denied, the student must enroll without state or federal aid until such time as the requisite GPA and completion percentage are met (up to the $150 \%$ maximum time frame).
Appeals that are approved are not retroactive to previous terms. All appeal decisions are final and not able to be appealed to another college representative or the Department of Education. The appeals committee has the authority to exercise professional judgment in all cases as necessary.
Please be sure to read the Cincinnati State Office of Financial Aid brochure, and our Web site at http://www.cincinnatistate. edu/CurrentStudent/FinancialAid for more information.


## Equal Opportunity

Cincinnati State Technical and Community College is committed to a policy of equal educational opportunities for all persons regardless of race, age, handicap, sexual orientation, national origin, or gender. This policy is adopted as a matter of law and as a matter of educational policy consistent with the goals and purposes of the College.
The College also adheres to a policy of equal employment opportunity and affirmative action to end any illegal pattern of discrimination and to overcome the effects of past discrimination.

## Assessment of Student Academic <br> Achievement and Graduate Educational Competencies

All Cincinnati State students participate in assessment activities throughout their academic life at the College. In addition, the College collects and analyzes information from graduates, employers, advisory committee members, and other external sources to assist faculty and staff in monitoring the effectiveness of academic programs.
Cincinnati State is a member of the Academic Quality Improvement Project (AQIP) of the Higher Learning Commission, North Central Association of College and Schools. Under the auspices of the AQIP, and in congruence with the College Mission statement (see page 13), Cincinnati State has established the following criteria for assessing the general educational competencies of Cincinnati State graduates. Currently, the College is establishing procedures for continuous measurement of graduates' attainment of these competencies.
A Cincinnati State graduate will be able to:

- Read critically, including the ability to analyze and interpret a variety of printed books, documents, and articles.
- Produce clear, logical, correct, coherent, and properly documented prose.
- Plan, write, and deliver an effective oral presentation.
- Use mathematical skills to solve practical problems.
- Analyze, interpret, and critically respond to nonprint media/sources.
- Explain how social, organizational, and technological systems work.
- Display awareness of cultural, ethnic, gender, racial, and religious diversity.
- Demonstrate self-management skills such as being able to assess self accurately, set personal goals, and monitor personal progress.
- Demonstrate professional and ethical workplace practices by successful completion of cooperative education, clinical or practicum experience, or internships.
- Function in the workplace both independently and as a member of a team.
- Display a commitment to lifelong learning.


## Cooperative Education Program Policies

The cooperative education program is an integral part of Cincinnati State's past growth, current strength, and continued success. The College's commitment to cooperative education is reflected in the curricula of most of the associate degree programs.

## Cooperative Education Requirements

Cincinnati State Technical and Community College values the cooperative education experience, but each division establishes its own policies regarding how the student may fulfill co-op requirements.
Students should refer to the academic division sections of this catalog for specific information on how the divisions expect students to meet cooperative education requirements.

## Meeting Academic Eligibility Requirements

To be eligible for placement in cooperative education employment (or clinical experience/directed practice), a student must maintain the required grade point average as stated in the College catalog (see "Academic Probation and Dismissal" in this section of the Catalog). The student must also demonstrate satisfactory proficiency in core or other required courses.
A student who does not maintain the required GPA will not be eligible for cooperative education or clinical experience/directed practice without the permission of the program coordinator.
Refer to the division sections of the catalog for additional requirements.

## Obtaining Cooperative Education Assignments

The College has been quite successful in placing most students in cooperative education jobs; however, there is no absolute guarantee of initial or continuing employment. The employer is solely responsible for decisions about hiring, retention, dismissal, promotion or demotion of a cooperative education student. Initial and continuing employment depends on the skills, aptitudes, and behaviors the individual student offers to each potential employer.

## Co-op Registration Policy

1. No student may report to his or her co-op job until he or she has registered and paid for co-op.
2. A student failing to register for co-op will not be eligible to receive co-op credit for that term.
3. Employers of co-op students who fail to register for co-op will be notified by the coordinator that the student no longer has co-op status. The employer has the option to allow the student to continue to work full-time without co-op status or terminate employment. This decision will be made by the employer.

## Withdrawal From Co-op/Clinical Experience

If a student is removed from a cooperative education or clinical experience course due to unsatisfactory performance, and the student subsequently withdraws from that course, the faculty member responsible for the course, with the approval of the division dean, may remove the " $W$ " and assign a grade of " U " or "F."

# Grading Policies 

## Grade Reports

Course grades are provided to students at the end of each term, and at the end of a flexibly-scheduled course, through the mySERVICES section of the College Web site. It is the student's responsibility to check his or her grades for accuracy. Any errors, discrepancies, or omissions should be reported to the instructor and/or division dean responsible for the course. Student concerns about grades should be made known within 30 days of the end of the term for which the grade was issued. (See "Academic Appeals Procedures" elsewhere in this section.)

## Grade Changes

Changes to course grades must be initiated by the instructor who issued the grade, and must be submitted to the appropriate division dean for approval no later than two terms after the term in which the grade was originally issued. The division dean forwards all approved grade changes to the Office of the Registrar for processing.

## Grading Standards

The College does not have a universal policy or standard for determining grades for courses or for assignments. Grading policies and procedures are the prerogative of each instructor. In some instances, academic departments or programs have established grading standards that apply to a particular course or group of courses. It is the student's responsibility to be aware of the instructor's grading policies, and to seek this information from the instructor if necessary.

## Making Up Missed Work

The privilege of making up missed assignments, quizzes, tests, exams, and other course activities is not automatic. An instructor does not have to permit or grant make-up privileges. It is the student's responsibility to be aware of the instructor's make-up policies, and to seek this information from the instructor if necessary.

## Grading System and Credits Earned

The following system is used to record student achievement or status in courses:

Grade Point Value
Grade Explanation Per Credit Hour
A ....Superior . . . . . . . . . . . . . . . . . . . . . . . . . . . 4.000
B . . . .Good . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3.000
C ....Average ........................................ 2.000
D . . .Poor . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1.000
F . . . .Failure to complete course requirements . . . 0.000
W . . .Withdrawal (Official) . . . . . . . . . . . Not Computed
AC . . .Advanced Placement Program Credit

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        . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Not Computed
    CL . . .CLEP Credit . . . . . . . . . . . . . . . . . . Not Computed
    EC . . .Cincinnati State Proficiency Examination Credit . . .
                                .Not Computed
    EL . . . External Certificate/Learning Exam . Not Computed
    ET . . . External Formal Training Program . . Not Computed
    EX . . . Work Experience Credit . . . . . . . . . Not Computed
    I .....Incomplete .......................... Not Computed
    IB . . . International Baccalaureate Credit . Not Computed
    K . . . . Transfer Credit . . . . . . . . . . . . . . . . Not Computed
N . . . No Grade Reported . . . . . . . . . . . . . Not Computed
S . . .Satisfactory . . . . . . . . . . . . . . . . . . . . Not Computed
TP . . . Tech Prep Credit . . . . . . . . . . . . . . . Not Computed
U . . . Unsatisfactory . . . . . . . . . . . . . . . . . Not Computed
VO . .Vocational Teacher Referral Credit . Not Computed
X . . .Audit . . . . . . . . . . . . . . . . . . . . . . . Not Computed

## Calculation of Grade Point Average (GPA)

The College utilizes three grade point averages (GPA) for each student.
The cumulative GPA is calculated as the total quality points earned (Grade Point Value Per Credit Hour, listed above) divided by the total credit hours attempted for courses bearing quality points at the College.
The Term GPA is calculated as the total quality points earned divided by the total credit hours attempted for courses bearing quality points for the term.
The Program GPA is calculated as the total quality points earned divided by the total credit hours attempted for all courses bearing quality points listed in the student's current audit curriculum.
The audit curriculum is the list of requirements the student must complete in order to earn a degree or certificate. See "Program Graduation Requirements" later in this section for addition information.
Developmental Education courses and English as a Second Language courses, with course numbers in the format "DE 00XX and ESL 00XX," are not calculated in the GPA.

## Incomplete (I)

A grade of " $I$ " (Incomplete) is awarded at the discretion of the instructor. When unusual circumstances prevent a student from completing course requirements during the term in which the student is enrolled, the instructor may agree to record a grade of " $I$ " until the final grade is established. Timetables and requirements for the completion of the course are the instructor's prerogative. If a final grade has not been submitted to the Office of the Registrar by the last instructional day of the following term, a grade of " $F$ " will be automatically recorded.

## Satisfactory/Unsatisfactory Grades (S/U)

The grade of " S " represents satisfactory performance, or "passing," in those courses graded satisfactory/unsatisfactory. Only the grades of "C" or higher are considered passing in the satisfactory/unsatisfactory system.

## No Grade Reported (N)

An " $N$ " grade is administratively assigned by the Office of the Registrar if no grades are reported for an individual student or for an entire section of a course. A grade of " N " is not issued to individual students by the instructor.

## Official Course Withdrawal (W)

A student who withdraws from a regularly-scheduled course after the Last Day to Drop a Course for the term through the thirty-fifth (35) instructional day of the term will receive a grade of "W" for the course. Students who withdraw from a flexiblyscheduled course after the day designated as the Last Day to Drop a Course for that course section through the day designated as the Last Day to Withdraw from that course section will receive a grade of " W " for the course. The student must com-
plete a withdrawal form in the Office of the Registrar. The date of withdrawal will be the date received in the Office of the Registrar. A "W" grade is not computed in the student's grade point average (GPA).

## Audit (X)

Students who are interested in taking a course solely for the value of the instruction may register to audit the course. No college credit may be earned or later claimed for an audited course. Regular tuition is charged for courses being audited. Requirements for attendance, completion of assignments, and examinations are the prerogatives of the instructor of the course.
A student may not request a transfer from "credit" to "audit" or vice versa after the Last Day to Drop a Course for the term.

## Advanced Standing Credit

(AC, CL, EC, EL, ET, EX, IB, TP, VO)

Advanced standing credit means that a student receives credit for completing a Cincinnati State course or cooperative education requirement by using one of the methods listed below to demonstrate successful completion of appropriate prior academic and/or work experience. Advanced standing credit is available to students who have been accepted into a degree or certificate program.
Students seeking advanced standing credit must follow the college and divisional procedures described in the Cincinnati State Student Guide to Advanced Standing Credit. This publication is available in the Office of the Registrar and in each academic division's main office. The information is also available on the Office of the Registrar's Cincinnati State Web site.
The types of advanced standing credit are:
External Proficiency Examination. The amount of credit given for an external proficiency examination is determined by the appropriate academic department.

- Credit may be awarded for Advanced Placement (AP) scores of three or higher. Credit is shown on the student's record as "AC."
- Credit is awarded for College Level Examination Program (CLEP) scores of 480 or higher. Credit is shown on the student's record as "CL." Students should have their CLEP test scores sent to the Cincinnati State Office of Admission for processing.
- Credit may be awarded for International Baccalaureate program scores of five or higher. Credit is shown on the student's record as "IB."
Internal Cincinnati State Proficiency Exam.
Credit is shown on the student's record as "EC."
Credit for Applicable Work Experience.
Credit is shown on the student's record as "EX."
Credit for an External Certificate/Licensing Exam.
Credit is shown on the student's record as "EL."
Credit for an External Formal Training Program.
Credit is shown on the student's record as "ET."
Credit through Senior Vocational Teacher Referral.
Credit is shown on the student's record as "VO."
Credit for Tech Prep Coursework.
Credit is shown on the student's record as "TP."
Some types of advanced standing credit are not available in some degree or certificate programs.
Students should be aware that advanced standing credit awarded by Cincinnati State may not be applicable to degrees at other colleges or universities. A student who intends to trans-
fer to another college or university should consult with a transfer advisor at that institution concerning the transferability of Cincinnati State advanced standing credits.
Students should make arrangements to apply for advanced standing credit as soon as possible after admission to a program.


## Requesting Advanced Placement Credit

Cincinnati State awards advanced standing credit to students who have completed Advanced Placement courses in high school and have achieved test scores at or above the levels in the following list.
For Advanced Placement subjects not listed, credit may be awarded for scores of three or higher, based on the recommendation of the appropriate Cincinnati State academic department or division.
Students should have their Advanced Placement test scores sent to the Cincinnati State Office of Admission.


## Requesting International Baccalaureate Credit

Cincinnati State awards credit to International Baccalaureate (IB) diploma graduates for higher level $(\mathrm{HL})$ subjects passed at a satisfactory level. Minimum scores vary, by subject area, from five to seven as indicated in the following list.
For International Baccalaureate subjects not listed, credit may be awarded based on the recommendation of the appropriate Cincinnati State academic department or division.
Students should have their International Baccalaureate test scores sent by the International Baccalaureate Organization to the Cincinnati State Office of Admission.

| International Baccalaureate |  | Cincinnati State |  |
| :---: | :---: | :---: | :---: |
| Subject | Score | Course Equivalent | Credits Awarded |
| Biology | 5,6, or 7 | BIO 4081, 4082, \& 4083 | 15 |
| Chemistry | 5 | CHE 2251 | 5 |
|  | 6 or 7 | CHE 2251 \& 2252 | 10 |
| Economics | 5,6, or 7 | ECO 1512, 1513, \& 1514 | 9 |
| English A1 | 5 | ENG 1001 | 3 |
|  | 6 | ENG 1001 \& 1002 | 6 |
|  | 7 | ENG 1001, 1002, \& 1003 | 9 |
| English A2 | 5,6, or 7 | ENG 1001, 1002, \& 1003 | 9 |
| World History | 5 | HST 1561 | 3 |
|  | 6 | HST 1561 \& 1562 | 6 |
|  | 7 | HST 1561, 1562, \& 1563 | 9 |
| History of the Americas | 5 | HST 1568 | 3 |
|  | 6 | HST 1568 \& 1569 | 6 |
|  | 7 | HST 1568, 1569, \& 1570 | 9 |
| African History | 5,6, or 7 | HST 1575 | 3 |
| European History | 5,6, or 7 | HST electives | 9 |
| French Ab initio | 5 or 6 | FRN 1060 \& 1061 | 8 |
|  | 7 | FRN 1060, 1061, \& 1062 | 12 |
| German Ab initio | 5 or 6 | GRM 1070 \& 1071 | 8 |
|  | 7 | GRM 1070, 1071, \& 1072 | -12 |
| Spanish Ab initio | 5 or 6 | SPN 1080 \& 1081 | 8 |
|  | 7 | SPN 1080, 1081, \& 1082 | 12 |
| French B | 5 or 6 | FRN 1063 \& 1064 | 8 |
|  | 7 | FRN 1063, 1064, \& 1065 | 12 |
| German B | 5 or 6 | GRM 1073 \& 1074 | 8 |
|  | 7 | GRM 1073, 1074, \& 1075 | - 12 |
| Spanish B | 5 or 6 | SPN 1083 \& 1084 | 8 |
|  | 7 | SPN 1083, 1084, \& 1085 | 12 |
| Philosophy | 5,6, or 7 | PHI 1621 | 3 |
| Psychology | 5,6, or 7 | PSY 1505 \& 1506 | 6 |
| Physics | 6 or 7 | Consult Department Chair |  |
| Mathematics | 6 or 7 | MAT 1152 \& 1154 | 10 |

## Requesting Other Advanced Standing Credit

To obtain advanced standing credit for all other types of prior learning, the student should follow these steps:
The student obtains a Petition for Advanced Standing Credit from the Office of the Registrar.
The student meets with his/her program chair or academic advisor to determine eligibility for advanced standing credit,
and to determine which faculty member should receive the completed Petition and supporting documentation.
If necessary, the student pays the advanced standing credit fee at the College Cashier's Office, and the Petition is marked "paid." This step applies to students seeking advanced standing credit either through internal proficiency exams or through documented valid academic or work experience. There is a separate fee charged for each attempt to earn credit through an internal proficiency exam.
The student submits the completed Petition and supporting documentation to the appropriate faculty member, as determined in Step 2.
After the Petition and related materials have been reviewed by appropriate division personnel, and the request for advanced standing credit has been approved or disapproved, the Petition is forwarded to the Office of the Registrar and the student is notified of the results.
Students cannot earn credit through an exam for a course already completed at Cincinnati State. A course is defined as "completed" if a grade of A, B, C, D, F, S, U, or W has been issued.
Additional information is contained in the Cincinnati State Student Guide to Advanced Standing Credit, available in the Registrar's Office.

## Transfer of Credit

Once a student is accepted in a degree or certificate program, official transcripts from previously attended colleges and universities submitted for admission will be forwarded to the Office of the Registrar for transfer of credit evaluation. In general, only coursework earned at a regionally-accredited institution with a grade of "C" or better will be acceptable in transfer. Courses in which a " $D$ " was earned also will be transferable, but only if the course was completed in Fall 2005 or later. Once the evaluation of transfer work is completed, the student will receive, by mail, a Transfer Evaluation Report, which lists all credits awarded in transfer and what equivalent courses have been assigned at Cincinnati State. In the event that no equivalent course at Cincinnati State can be assigned, the transfer course will be accepted as elective credit. Whether or not courses accepted as elective credit are applicable to the student's degree or certificate program is at the discretion of the program chair or academic advisor.
In situations where coursework is five years old or older, or where requisite skills may have been lost, courses previously taken at other institutions will be subject to review by the faculty and dean of the division that offers the equivalent course(s). Those courses reviewed which do not meet current program requirements and standards will not count towards degree or certificate requirements.
Transfer credit accepted at Cincinnati State will appear on a student's transcript as a cumulative number of hours accepted.

## Dean's List and Academic Merit

Students who earn in one term 12 or more credit hours for academic courses for which quality points are awarded will qualify for Dean's List status if their GPA for the current term is 3.5 or greater and no grades of I, F, or $U$ have been earned in the current term. Developmental Education courses are not included in GPA calculations for the Dean's List.
Students who earn in one term between six and 11 credit hours of academic courses for which quality points are award-
ed will qualify for Academic Merit status if their GPA for the current term is 3.5 or greater and no grades of $\mathrm{I}, \mathrm{F}$, or U have been earned in the current term. Developmental Education courses are not included in GPA calculations for Academic Merit.
Students who receive a grade of " $N$ " will not initially be eligible for Dean's List or Academic Merit. To be eligible for Dean's List or Academic Merit, the grade change for the " N " grade must be submitted to the Office of the Registrar by the end of the 10th instructional day of the following term. Grade changes for " N " grades submitted after the 10th instructional day of the following term will not be recalculated for Dean's List or Academic Merit status. Recalculation for Dean's List and Academic Merit status will be done only for " N " grades issued for the immediately preceding term and only if the grade changes are submitted by the deadline.

## Academic Probation, Suspension and Dismissal

Cincinnati State students enrolled in a degree or certificate program must demonstrate satisfactory performance in order to remain in good standing at the College. Students who do not demonstrate satisfactory performance will be placed on Academic Probation. If the work of a student on Probation does not improve, they may be subject to Academic Suspension and then Academic Dismissal from the College.
A student cannot graduate from a degree or certificate program while on Academic Probation or Academic Suspension.

## Academic Probation

- A student who has attempted at least 18 credits and has a Cumulative Grade Point Average (GPA) below 2.0 is immediately placed on Academic Probation.
- A student on Academic Probation must have his or her advisor's permission before registering for any classes. The number of credits for which the student may register will be determined based on consultation with the advisor.
- A student who is placed on Academic Probation will be reevaluated at the end of each enrolled term.


## Academic Suspension

If a student who is on Probation earns a Term GPA below 2.0 in the next enrolled term, the student will be placed on Academic Suspension.
A student placed on Academic Suspension may not register for any courses at Cincinnati State for two terms, and may not represent the College or participate in College-sponsored activities, except activities intended to help the student improve his or her academic performance.
A student may appeal the Academic Suspension through a written request to the Academic Vice President. The written request must include a rationale for the appeal and supporting documentation. The decision of the Academic Vice President is final.

## Readmission after Suspension

A student who is readmitted to the College after Suspension is subject to the following conditions:

- The student must meet with his or her program chair/ advisor to determine a plan for academic success.
- The student must have his or her advisor's permission before registering for any classes.
- The student must maintain a Term GPA of 2.0 or greater
for every enrolled term. The student will continue to be considered on Probation as long as the student's Cumulative GPA is less than 2.0.


## Academic Dismissal

Cincinnati State expects students to be able to demonstrate continued academic success. A student who has been readmitted after Suspension and is still on Probation (because of a Cumulative GPA below 2.0) is expected to raise the Cumulative GPA to 2.0 or above within three terms. Failure to attain a Cumulative GPA of 2.0 or above within three terms will result in Academic Dismissal.
A student who has been Academically Dismissed may not register for any courses for a period of one year.
A student may appeal the Academic Dismissal through a written request to the Academic Vice President. The written request must include the rationale for the appeal and supporting documentation. The decision of the Academic Vice President is final.

## Registration

Students may register in person in the Office of the Registrar or by using the mySERVICES section of the Cincinnati State Web site. Registration for a term begins approximately four weeks prior to the first day of the term.

## Priority Registration

The registration period each term consists of three overlapping segments or registration "windows":

- Priority 1 registration is the time period set aside for active degree-seeking and certificate-seeking students with 30 or more credit hours (including transfer credits). Students in the Honors Experience program can also register at this time, regardless of their accumulated credit hours. The Priority 1 registration window generally begins on a Saturday and extends through the day before the first day of classes for the term.
- Priority 2 registration begins approximately four to five days after Priority 1 registration begins. This period is for active degree-seeking and certificate-seeking students regardless of their accumulated credit hours. The period extends through the day before the first day of classes for the term.
Open Registration begins approximately two weeks after Priority 1 registration begins. Students who are not seeking a degree or certificate may register at this time. Applicants who have not been admitted to a program may also register. Registration for all students ends on the day before the first day of classes for the term.
For specific dates of registration and information regarding Web registration, refer to the Calendar section of the College Web site.


## Late Registration

Once classes for the term have begun, all registration activity must be done in person. Web registration is not available. Late registration and adding of classes are possible only with permission of the class instructor after the class first meets. The late registration period ends on the seventh calendar day of the term. The additional consent of the division dean is required to register and add classes after the seventh calendar day. Registrations are not permitted after the fourteenth calendar day of the term.

## Prerequisite Requirements

Before a student will be permitted to register for any course, the student must have successfully completed prerequisite requirements, or currently be enrolled in the course that is the prerequisite. In some cases, the prerequisite to a course is either an appropriate score on the COMPASS placement test, or successful completion of a designated Development Education (DE) course.

## Enrollment Status

Enrollment status is determined by the official number of credit hours for which a student is registered each term. Enrollment status often is used to help determine eligibility for financial aid, veteran's benefits, company and agency funding, and health benefits.
Students are responsible for knowing their enrollment status and understanding the impact of changing their credit hours by using the add/drop process.
Cincinnati State defines a student's enrollment as follows:
Full-Time Enrollment
12 or more credit hours or full-time cooperative education placement
3/4 Time Enrollment
9-10-11 credit hours
1/2 Time Enrollment
6-7-8 credit hours
Less than
Half-Time Enrollment 5 or fewer credit hours
Students placed on a part-time cooperative education placement are not considered half-time students for the purpose of enrollment verification.

## Enrollment Verification

Students may submit enrollment verification request(s) to the Office of the Registrar. Depending on the information requested, Enrollment Verifications may take up to five (5) business days to process. An Enrollment Verification form is available from the College Web site.

## Administrative Withdrawal from Admitted Status

An admitted student who has not enrolled in classes for five consecutive terms will be administratively removed from admitted status. To regain admitted status, the student must reapply for admission and pay a $\$ 10$ non-refundable fee.
Students who apply for readmission five or more years after their prior admission date must submit a new Application for Admission, pay a $\$ 10$ non-refundable fee, and complete all other required admissions steps, including COMPASS testing.
For additional information, see the "Admission, Fees, \& Financial Aid" section of this catalog.

## Completing More Than One Degree ("Double Major")

When a student is admitted to the College he or she is considered to be seeking only one academic degree or certificate. In some cases, students may seek to "double major" by pursuing a second associate degree in an area that is closely related to their initial degree program.
To be considered for a "double major," a student must first be
fully admitted to an associate degree program. Students in preadmit status are not eligible to apply for a "double major". Students who are seeking a certificate rather than a degree are not eligible to apply for "double major" status.
To be considered for a "double major," a student must apply for admission to the second program by completing a Double Major form available online (see http://www.cincinnatistate. edu/FutureStudent/Admission/DoubleMajorForm.htm). The academic division in which the student seeks the second major will determine whether the student is eligible to pursue the second major.
Students who are granted "double major" status are expected to consult regularly with their program advisor (or advisors) to ensure that they are making appropriate progress in their degree programs.
Students with questions or concerns about their academic status or goals should consult with their program advisor, or with the Admission Office.

## Changing Degree Programs

Students who wish to transfer from one degree or certificate program to another must complete the online "Change of Major Form."
Calculation of Program GPA for a Student Who Transfers to a New Degree Program - When a student transfers from one degree or certificate program to another, all courses attempted that apply to the new audit curriculum, with the exception of cooperative education courses, will automatically transfer to the new program. The new program's audit curriculum will serve as the basis for calculating the program grade point average.
Additional transfer of courses to the new program, including cooperative education courses, will be evaluated by the divisional faculty and dean on an individual basis.

## Repeated Course

If a course is repeated, only the highest grade is computed in the calculation of the GPA. If a student earns the same grade upon repeating a course, only one grade will be computed in the calculation of the GPA. The original course grade will continue to be shown on the transcript with an indication that it is not calculated in the GPA.

## Limits to Repeated Course

A student who has received a grade of "F," "W," or any other grade twice for the same course cannot register for the course a third time without written permission of the student's program chair/advisor. The program chair/advisor may require the student to meet with a Cincinnati State counselor to discuss potential for success in the student's current degree or certificate program. (Note: A few Cincinnati State courses, such as Physical Education courses, do permit students to register more than twice without special permission.)

## Academic Reassessment Policies

Cincinnati State offers two options for students who wish to recalculate their grade point average. Students experiencing current academic success may adjust their grade point average (GPA) by applying to remove from their GPA calculation courses in which they earned grades of " D, , "F," "V," or "WF" that do not apply to the student's current degree or certificate program.
Students may discuss with their program chair or academic advisor one of the following procedures:

- Fresh Start - for students returning to Cincinnati State after an absence of three years or more.
- Academic Forgiveness - for students who have attended Cincinnati State continuously, or who are returning after an absence of less than three years.
Both Fresh Start and Academic Forgiveness are one-time, nonreversible options. Students may use only one of these options. Courses that are part of a degree or certificate that the student has earned previously at Cincinnati State are not eligible for reassessment.
Students who plan to transfer to another college or university should note that the new college or university may use all grades earned in computing grade point averages for admission or other purposes.


## Fresh Start

For Fresh Start eligibility, students must:

- Complete all readmission procedures and requirements.
- Be admitted to a degree or certificate program and have completed all Developmental Education requirements.
- Have twelve or more credits-not including coursework for which Satisfactory/Unsatisfactory grades are assignedto complete in their program at the time of application.
To request Fresh Start, students must:
- Complete a Petition for Fresh Start (available in division offices) in consultation with the program chair or academic advisor. This petition lists courses in which the student earned grades of " D, " "F," "V," or "WF" and requests that they no longer be calculated in the grade point average.
- Submit the completed petition to the Office of the Registrar within five terms of admission to a degree or certificate program at Cincinnati State.


## Academic Forgiveness

For Academic Forgiveness eligibility, students must:

- Be admitted to a degree or certificate program and have completed all Developmental Education requirements.
- Have twelve or more credits-not including coursework for which Satisfactory/Unsatisfactory grades are assignedto complete in their program at the time of application.
To request Academic Forgiveness, students must:
- Complete a Petition for Academic Forgiveness (available in division offices) in consultation with the program chair or academic advisor. This petition lists courses in which the student earned grades of " D, " " F ," " V ," or "WF" and requests that they no longer be calculated in the grade point average.
To initiate the request for Fresh Start or Academic Forgiveness, students must:
- Submit the completed petition to the Office of the Registrar by the twelveth calendar day of the term. Late petitions will be held until the following term.
- Complete a minimum of twelve additional credits and maintain a grade point average of 2.0 or higher and earn no grade lower than a " C ". Developmental Education courses and co-op courses are not eligible.
At the end of the term:
- The Office of the Registrar evaluates the petitions. If the student has successfully completed twelve credits with a term grade point average of 2.0 or higher and earned no grade below a "C", Fresh Start or Academic Forgiveness is applied.
- If the student has not completed twelve credits, the Office of the Registrar holds the petition and reviews it at the end of each term until the student completes twelve credits. If the student has maintained a term grade point average of 2.0 or higher and has earned no grade below a C, Fresh Start or Academic Forgiveness is applied.
- After the petition is approved, the following statement will appear on the student's transcript: "The Fresh Start or Academic Forgiveness policy has been applied to academic work at Cincinnati State prior to (term/year of Petition approval)." A new cumulative and program grade point average are calculated using the new set of applicable courses.


## Academic Procedures

## Academic Appeals Procedure

Cincinnati State Technical and Community College has adopted the following procedures to ensure that students with legitimate concerns about academic processes (hereafter called "academic appeals") can resolve these concerns equitably. A student is expected to first attempt to resolve concerns directly with the instructor, within two terms of when the grade was issued.

1. A student is expected to bring his or her academic appeal first to his or her faculty advisor (program chair or cooperative education coordinator).
2. If the concern cannot be settled at this level, the student is expected to bring his or her academic appeal to the division dean or the dean's designee.
3. It is expected that most academic appeals will be resolved at the division level. However, if the concern cannot be resolved by the division dean, the student may continue the academic appeals process by meeting with an academic appeals panel. To initiate this process, the student must submit a written request to appeal the decision of the division dean, including a statement of the concern that is to be addressed, and pertinent documentation, to the Academic Vice President. The Academic Vice President will review all pertinent information in order to determine if the appeal merits the formation of a panel. If the Academic Vice President determines that an appeals panel should appropriately be formed, the process continues with step four. If the Academic Vice President does not feel the student's appeal merits the formation of a panel, he/she will meet with the student involved and relay his/her findings and recommendations.
4. If an academic appeals panel is convened, it will be composed of one dean (excluding the dean of the division involved in the appeal), appointed by the Academic Vice President; and two faculty members, appointed by the Faculty Senate. The designated dean will chair the panel, solicit appointment of the faculty representatives, convene meetings of the panel, and provide copies of necessary documentation to the other panel members. Documentation will include:
a. The student's written statement and other material the student wishes to submit.
b. A written summary of the disposition of the case at the division level, prepared by the division's dean.
c. The student's transcript, or any other related materials the panel may wish to examine.
5. The chair will convene a meeting that includes the student, the members of the panel, and other participants the panel may choose to invite to the meeting. The student will have an opportunity to present his or her concern, and the panel members will have the opportunity to ask questions and seek clarification. If the panel determines there are issues involved which are not academic concerns, the panel will inform the student of appropriate measures to be taken.
6. The panel may, at its own discretion, refer the matter to the Academic Policies \& Curriculum Committee (APCC) for advice and recommendations.
7. If the APCC is to be convened to review the appeal, the panel chair must ensure that all related documentation is submitted to the APCC chair one week prior to the APCC meeting. Any recommendations made by the APCC will be submitted to the academic appeals panel for consideration.
8. The chair of the academic appeals panel will forward a recommendation along with all related documentation to the Academic Vice President (chief academic officer) of the College. The chief academic officer will make the final determination regarding the appeal and will notify the dean of the division involved in the appeal. That dean will communicate this determination to the student who initiated the appeal.

## Attendance

Each student is expected to attend all classes and cooperative education/clinical placements as scheduled. Each College faculty member is expected to document student attendance during the first two weeks of the term and to report attendance to the Office of the Registrar. Attendance in cooperative education and clinical placements is reported by the Cooperative Education/Clinical Coordinator based on reports from the student's site coordinator.
Individual faculty members may establish course policies that consider attendance as a factor in determining course grades. Each student should check with his or her instructors to determine how attendance will be taken and in what ways, if any, attendance is a factor in grading.
A student who enrolls in a course but does not attend any classes during the first two weeks will be designated by the instructor as a "No Show" (NS).
Additional policies related to attendance appear in the next section under point six, "Non Attendance."

## Adding, Dropping or Withdrawing from a Course

The College Term Calendar, available on the College Web site, lists the dates when students may add, drop or withdraw from a course after completing their initial registration. Student transactions to add, drop or withdraw from a course are not official unless processed using the mySERVICES section of the Cincinnati State Web site or the appropriate form has been processed by the Office of the Registrar. The appropriate forms for registration activity can be obtained in the Office of the Registrar. The following regulations apply to all courses offered during the term:
Adding a course

- Prior to the first course meeting of the term, no approval is required to enter an open course, unless the course has an "instructor consent" requirement.
- Once a course has met, the approval of the instructor of the course must be obtained.
- From the eighth through the fourteenth calendar day of the term, the approval of the instructor and dean are required to register for a course. In an instance when the fourteenth calendar day falls on a weekend or holiday, the last day to enter a course will be the preceding business day.
- The fourteenth calendar day of the term is the last day to enter a course.


## Dropping a course

- Courses dropped from the time of registration through the fourteenth calendar day of the term do not need additional approval to be processed.
- The fourteenth calendar day of the term is the last day to drop a course. In an instance when the fourteenth day falls on a weekend or holiday, the last day to drop a course will be the preceding business day.
Withdrawing from a course
- The Withdrawal period for regularly scheduled courses begins each term the day after the Last Day to Drop a Course and ends on the thirty-fifth (35) instructional day. The Withdrawal period for flexibly scheduled courses begins after the day designated as the Last Day to Drop a Course for that course section through the day designated as the Last Day to Withdraw from that course section. No additional approval is required to withdraw from a course during this period.
- Only in circumstances beyond the student's control will a Withdrawal be permitted after the thirty-fifth (35) instructional day. All official withdrawals must be approved by the instructor of the course and the division dean. In cases not approved, the student will receive the grade assigned by the instructor.
Course Drop/Withdrawal Grading Policy
- Through the fourteenth calendar day of each term, courses officially dropped in the Office of the Registrar will not appear on students' transcripts.
- During the Withdrawal Period, official withdrawals will be assigned a grade of "W." The "W" will appear on the student's transcript, however it will not be calculated into the grade point average (GPA).
- The instructor may not issue a " W " as the final grade. A " W " is assigned only if the student has completed the withdrawal process in the Office of the Registrar.


## Flexibly Scheduled Courses

The following policies and procedures pertain to Flexibly Scheduled Course Sections only:

- Course sections with a beginning and/or ending date different than the first and last days of the normal term schedule are considered flexibly scheduled. Flexibly Scheduled Course Sections are identified in the course schedule with alphabetical section designations.
- Students may register for a flexibly scheduled course section with no additional approvals up to the first course meeting.
- A student may enter a flexibly scheduled course section by the date established as the Last Day to Enter a Course for that course section. Registrations beyond the date established as the Last Day to Enter a Course for that flexibly scheduled course section will not be permitted.
- A student may drop a flexibly scheduled course section without a grade appearing on their record by the date established as the Last Day to Drop a Course for that course section.
- A student may withdraw from a flexibly scheduled course section from the date established as the Last Day to Drop a Course for that section through the date established as the Last Day to Withdraw from a Course for that section.


## Non-Attendance

The following policies apply to all courses.

- Instructors are required to document and report student attendance in each course meeting through the first two weeks of the term.
- From the First Day of the Term until the First Day to Withdraw for the term, students who drop or withdraw from a course must identify whether or not they attended the course section.
- A student who enrolls in a course but does not attend the course within the first two weeks will be designated a No Show (NS) by the instructor.
- If there is a discrepancy between a student's self-reported attendance and the attendance status reported by an instructor, the attendance status reported by the instructor will be the status of record.
- Students are not permitted to begin attending a course section after a No Show (NS) has been issued by the instructor or self-reported by the student for that course section.
- The designation of No Show (NS) will not appear on the student's transcript.
- A student who receives a No Show (NS) designation for a course is still financially responsible for payment for the course. Federal Financial Aid is not applicable to a course for which a student has received a No Show (NS) designation.
- A student is not permitted to withdraw from a course he or she did not attend or to which a No Show (NS) has been assigned.


## Procedures for Students <br> Called to Active Duty

Students enlisted in the military reserves or National Guard who are called to active duty may drop or withdraw from all courses. This may be accomplished in person, by fax, by mail, or through a designee.
Students called to active duty must complete the following:

- Provide the Office of the Registrar with a copy of the military orders. The student or designee may deliver the copy of the orders to the Office of the Registrar, mail it (Office of the Registrar, 3520 Central Parkway, Cincinnati OH, 45223), or fax it to (513) 569-1883.
- Request to be dropped from all courses. If this is accomplished in-person, the student will complete the appropriate form (In-Person Registration Activity Form, Course Withdrawal Form, or Request for Late Withdrawal Form, depending on how far the term has progressed). For fax, mail, or designee requests, staff in the Office of the Registrar will complete the appropriate form on behalf of the student.
- Indicate to the Office of the Registrar whether he/she attended any class sessions.
- If the student attended class sessions, he/she must provide the last date of attendance for each course to be dropped. If a designee who is handling this process cannot provide this information, the Office of the Registrar will obtain the last date of attendance from the instructor.
- In some instances, time constraints may prevent the student from completing a Late Withdrawal request. In this case, the student may present the military orders within 30 business days of his/her return to receive Late Withdrawal. The Office of the Registrar will not accept Requests for Late Withdrawal after that time period.


## Course Cancellation

A course offering may be canceled prior to the beginning of a term because of low enrollment. The College will attempt to notify students of the course cancellation before the first day of the term, but cannot guarantee that such notice will be provided.

## Weather-Related Canceling of Classes

In the event of adverse conditions, it may be necessary to cancel some class sessions. The College will rarely close completely.
Local radio and television stations may begin announcing Cincinnati State's operating status as early as 6:15 a.m. on the day involved.
The status of the evening classes will be handled by a separate announcement later on the day involved.

## Faculty Office Hours

All full-time College faculty maintain office hours to conduct in-person meetings with students. Some faculty members also maintain online office hours for communication with students by e-mail. Students should check with each instructor, or the receptionist in the instructor's division office area, to schedule appointments.

## Children on Campus

Cincinnati State Technical and Community College strives to maintain an environment conducive to teaching and learning. Therefore, whenever children are brought to the campus they must remain with their parents, guardians, or caretakers in all areas of the College. Whether or not a child can be brought into a classroom will be at the discretion of each instructor.
If the College's campus police department finds any child left unattended, they will locate the parent/caretaker so that the child can be cared for properly. Above all else, the College wishes to insure the safety and well-being of each child.

## mySERVICES

mySERVICES is the pathway to Web-based student services at Cincinnati State. Through mySERVICES, students can register, add and drop classes, view and print their class schedules, make payments, check on financial aid status, view and print their grade reports, and access a variety of other services. To access mySERVICES, go to the Cincinnati State Web site at http://www.cincinnatistate.edu, and then choose myCSTATE. Log in with Username and Password. Then choose the mySERVICES tab.

## Requesting College Transcripts from Cincinnati State

To obtain a copy of the college transcript, the student's request may be made in person, by Web (using mySERVICES), by mail, or by fax. All requests must include name, student ID or social security number, dates attended, and the address to which the transcript should be sent. Students wishing to pick up the processed request should indicate so when the request is
submitted. Requests must include the student's signature authorizing the College to release this information.
To request the transcript in person, the Office of the Registrar is open Monday through Friday, 8:00 a.m. to 5:00 p.m. The Welcome Center is open Monday through Thursday until 6:30 p.m.
To request the transcript by mail, please mail the request to: Office of the Registrar
Cincinnati State Technical and Community College 3520 Central Parkway
Cincinnati, OH 45223-2690
Requests may be faxed to: (513) 569-1883.
Please note:

- Students who attended Cincinnati State after 1986 may request an official or unofficial transcript be printed for them while they are in the Office of the Registrar.
- Students who need their official transcript sent directly from the Office of the Registrar may request a transcript be sent to an individual or other institution designated by the student. Please allow five working days for staff to process such requests.
- Students who attended Cincinnati State prior to 1987 may request an official or unofficial transcript. If the student needs an official transcript sent directly from the Office of the Registrar he or she may request a transcript be sent to an individual or other institution designated by the student. Because all or part of records prior to 1986 may be on microfilm, please allow ten working days for staff to process such requests.
There is no charge for any transcript request (official or unofficial). For questions regarding ordering transcripts, please call the Office of the Registrar, (513) 569-1522, and choose the transcript help line.


## College ID Cards

Every enrolled student is required to have a College identification card, called a SurgeCard, with them at all times for security purposes. ID cards are available from the Student Activities Office in Room 204 of the Advanced Technology \& Learning Center.
The SurgeCard is required to use some campus services such as the Library, parking, Fitness Center and to attend College sports activities. More information is available from the Student Activities Office in Room 204 ATLC.

## State of Ohio Policy for Institutional Transfer

Note: The following information is a policy of the Ohio Board of Regents.

## Institutional Transfer

The Ohio Board of Regents in 1990, following a directive of the 119th Ohio General Assembly, developed the Ohio Articulation and Transfer Policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. A subsequent policy review and recommendations produced by the Articulation and Transfer Advisory Council in 2004, together with mandates from the 125th Ohio General Assembly in the form of Amended Substitute House Bill 95, have prompted improvements of the original policy. While all state-assisted
colleges and universities are required to follow the Ohio Articulation and Transfer Policy, independent colleges and universities in Ohio may or may not participate in the transfer policy. Therefore, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements. In support of improved articulation and transfer processes, the Ohio Board of Regents will establish a transfer clearinghouse to receive, annotate, and convey transcripts among state-assisted colleges and universities. This system is designed to provide standardized information and help colleges and universities reduce undesirable variability in the transfer credit evaluation process.

## Transfer Module

The Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university's general education curriculum in A.A., A.S. and baccalaureate degree programs. Students in applied associate degree programs may complete some individual transfer module courses within their degree program or continue beyond the degree program to complete the entire transfer module. The Transfer Module contains 54-60 quarter hours or 36-40 semester hours of course credit in English composition (minimum five to six quarter hours or three semester hours); mathematics, statistics and formal/symbolic logic (minimum of three quarter hours or three semester hours); arts/humanities (minimum nine quarter hours or six semester hours); social and behavioral sciences (minimum of nine quarter hours or six semester hours). Oral communication and interdisciplinary areas may be included as additional options. Additional elective hours from among these areas make up the total hours for a completed Transfer Module. Courses for the Transfer Module should be 100- and 200-level general education courses commonly completed in the first two years of a student's course of study. Each state-assisted university, technical and community college is required to establish and maintain an approved Transfer Module.
Transfer Module course(s) or the full module completed at one college or university will automatically meet the requirements of individual Transfer Module course(s) or the full Transfer Module at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the Transfer Module at Institution S (sending institution) and then transfers to Institution R (receiving institution) is said to have completed the Transfer Module portion of Institution R's general education program. Institution R, however, may have general education courses that go beyond its Transfer Module. State policy initially required that all courses in the Transfer Module be completed to receive its benefit in transfer. However, subsequent policy revisions have extended this benefit to the completion of individual Transfer Module courses on a course-by-course basis.

## Transfer Assurance Guides

Transfer Assurance Guides (TAGs) comprise Transfer Module courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio university and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent learning experiences across the state's highereducation system. A number of area-specific TAG pathways in
the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams.
TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisors at the institution to which a student wishes to transfer should also be consulted during the transfer process. Students may elect to complete the full TAG or any subset of courses from the TAG. Because of specific major requirements, early identification of a student's intended major is encouraged.

## Conditions for Transfer Admission

1. Ohio residents with associate degrees from state-assisted institutions and a completed, approved Transfer Module shall be admitted to any state institution of higher education in Ohio, provided their cumulative grade point average is at least 2.0 for all previous college-level courses. Further, these students shall have admission priority over out-ofstate associate degree graduates and transfer students.
2. When students have earned associate degrees but have not completed a Transfer Module, they will be eligible for preferential consideration for admission as transfer students if they have grade point averages of at least a 2.0 for all previous college-level courses.
3. In order to encourage completion of the baccalaureate degree, students who are not enrolled in an A.A. or A.S. degree program but have earned 60 semester or 90 quarter hours or more of credit toward a baccalaureate degree with a grade point average of at least a 2.0 for all previous collegelevel courses will be eligible for preferential consideration for admission as transfer students.
4. Students who have not earned an A.A. or A.S. degree or who have not earned 60 semester hours or 90 quarter hours of credit with a grade point average of at least a 2.0 for all previous college-level courses are eligible for admission as transfer students on a competitive basis.
5. Incoming transfer students admitted to a college or university shall compete for admission to selective programs, majors, and units on an equal basis with students native to the receiving institution.
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 the institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as native students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be completed at the receiving institution.

## Acceptance of Transfer Credit

To recognize courses appropriately and provide equity in the treatment of incoming transfer students and students native to the receiving institution, transfer credit will be accepted for all successfully completed college-level courses completed in and after fall 2005 from Ohio state-assisted institutions of higher education. Students who successfully completed A.A. or A.S. degrees prior to fall 2005 with a 2.0 or better overall grade point average would also receive credit for all college-level course they have passed. (See Ohio Articulation and Transfer Policy, Definition of Passing Grade and Appendix D) While this reflects
the baseline policy requirement, individual institutions may set equitable institutional policies that are more accepting.
Pass/fail courses, credit by examination courses, experiential learning courses, and other nontraditional credit courses that meet these conditions will also be accepted and posted to the student record.

## 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. Students should use the Transfer Module, Transfer Assurance Guides, and Course Applicability System for guidance in planning the transfer process. 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.

## Appeals Process

Following the evaluation of a student transcript from another institution, the receiving institution shall provide the student with a statement of transfer credit applicability. At the same time, the institution must inform the student of the institution's appeals process. The process should be multi-level and responses should be issued within 30 days of the receipt of the appeal.
The Ohio Board of Regents, following the directive of the Ohio General Assembly, developed a statewide policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. Since independent colleges and universities in Ohio may or may not be participating in the transfer policy, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements.
The Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university's general education program. Transfer Module contains 54 to 60 quarter hours (or 36-40 semester hours) of course credits in the following areas: English, Mathematics, Arts and Humanities, Social and Behavioral Sciences, Natural and Physical Sciences, and Interdisciplinary Study.
A Transfer Module completed at one college or university will automatically meet the requirements of the Transfer Module at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the Transfer Module at Institution S (sending institution) and then transfers to Institution $R$ (receiving institution) is said to have completed the Transfer Module portion of Institution R's general education program. Institution R, however, may require additional general education courses beyond the Transfer Module.
Since many degree programs require specific courses that may be taken as a part of the general education or Transfer Module program at an institution, students are encouraged to meet with
an academic advisor at the institution to which they plan to transfer early in their academic career. For example, students who will be majoring in any of the majors in the College of Business and Administration at the receiving institution should take Economics 201, 202, and 203 (or equivalent course at another institution) rather than the Economics 200 course listed as a part of the Transfer Module. Because of specific major requirements such as these, early identification of a student's intended major is encouraged. Advisors at the institution to which a student wishes to transfer should be consulted regarding Transfer Module and general education courses and any specific program requirements that can be completed before transfer.

## Conditions for Transfer Admission

1. The policy encourages receiving institutions to give preferential consideration for admission to students who complete the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better for all previous college level courses.
2. The policy also encourages receiving institutions to give preferential treatment to students who have not earned an Associate of Arts or Associate of Science degree but have earned 60 semester hours or 90 quarter hours with a cumulative grade point of 2.0 or better for all previous college level courses.
3. The policy further encourages that students who have not earned an Associate of Arts or Associate of Science degree or who have not earned 60 semester hours or 90 quarter hours with a cumulative grade point of 2.0 or better for all previous college level courses are eligible for admission as transfer students on a competitive basis.

## Acceptance of Transfer Credit

1. Students who have completed the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better will receive transfer credit for all college level courses in which a grade of " D " or better has been earned.
2. Students who have not earned an Associate of Arts or Associate of Science degree will receive transfer credit for all college level courses in which a grade of "C" or better has been earned, or a grade of " $D$ " or better if the course was completed in Fall 2005 or later.
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 the 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 all other 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.

## State of Ohio Appeals Process

A student disagreeing with the application of transfer credit by the receiving institution shall be informed of the right to appeal the decision and of 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 of transfer credits at receiving institutions.

## Cincinnati State Transfer Module <br> \section*{Appeal Process}

Should a student transferring into Cincinnati State be dissatisfied with the credit awarded as part of the transfer module program of the State of Ohio, an internal appeal process and an external appeal process are both available.
The internal appeal process must be utilized first. At Cincinnati State, the internal appeal process for a student dissatisfied with credit awarded as part of the transfer module program is the College Academic Appeals Procedure, described previously in this section of the Catalog.
The external appeal process may be utilized only after the internal appeal process has been completed and the student remains dissatisfied with the institution's judgement. The external appeal will be conducted by the Statewide Appeals Review Committee. More information on this process is available from the Ohio Board of Regents in Columbus, Ohio.

## Graduation Requirements

To qualify for the associate's degree, a student must be admitted to a degree program, complete the program requirements as identified in the audit curriculum, attain at least a 2.0 cumulative and program GPA, and petition to graduate.
Completion is defined as earning the grade A, B, C, D, or S for any course. An earned D may not count toward graduation, depending on program and/or division policies.
As part of the graduation requirements for the Associate of Applied Business (AAB), Associate of Applied Science (AAS), Associate of Individualized Study (AIS), and Associate of Technical Study (ATS) degrees, a student must complete at least 21 credit hours in general education areas, distributed as follows:

- Communication Skills - 12 credits

9 credits written communication (department code ENG)
3 credits oral communication (department code SPE)

- Social Sciences and Humanities -

9 credits, selected from these areas:
Social/Behavioral Sciences, including:
economics (department code ECO)
geography (department code GEO)
history
labor relations
political science
psychology
sociology
Arts/Humanities, including: art
culture studies
foreign languages
literature
music
philosophy
theatre
(department code GEO)
(department code HST)
(department code LBR)
(department code POL)
(department code PSY)
(department code SOC)
(department code ART)
(department code CULT)
(department codes
FRN, GRM, SPN, SPB)
(department code LIT)
(department code MUS)
(department code PHI)
(department code THE)

Students seeking an AAB, AAS, AIS, or ATS degree should consult the curriculum for their program, published elsewhere in this Catalog, to determine how the general education requirements should be met. Individual degree programs may require students to complete program-specified general education courses, or may permit students to choose some general education elective courses. Transfer credit for Social Sciences or Humanities courses completed at another institution, in disciplines not listed above, may be applied toward Cincinnati State graduation requirements, with the program chair's permission.
Students seeking the Associate of Arts or Associate of Science degree must meet the general education requirements described on pages 74-78.

## Program Graduation Requirements (Degree Audit Curriculum)

Requirements for each degree and certificate program at Cincinnati State are published each year in this catalog. A student is expected to fulfill the requirements in effect for the catalog year when the student is admitted to the program. This set of requirements may be referred to as the student's Academic Evaluation or Degree Audit curriculum.
Students can review a copy of their Degree Audit curriculum using the mySERVICES section of the Cincinnati State Web site.
A student who is readmitted to the College after an absence of a year or more is expected to fulfill the requirements in effect at the time of readmission.
Students should consult with their Program Chair or academic advisor to discuss any changes made to program requirements that could affect progress toward completing the degree or certificate program.

## College Orientation Requirement

All Cincinnati State students who are enrolled in a degree program are required to complete a college orientation course, either FYE 9002, College Survival Skills, or FYE 9003, The Community College Experience.
Students in the Cincinnati State Honors Experience fulfill the orientation course requirement by completing HNR 1695, Introduction to Honors.
Some certificate programs also require students to complete FYE 9002 or FYE 9003. Each certificate program that requires completion of an orientation course is indicated in the Academic Divisions section of this Catalog.

From Early Fall 2001 through Summer 2006, the required orientation course was titled CAR 9002, College Success Seminar. Students who enrolled in a degree or certificate program that required CAR 9002 and did not complete it are required to complete either FYE 9002 or FYE 9003.
Students must complete the orientation course requirement within the first 18 credit hours taken at Cincinnati State.
A degree-seeking or certificate-seeking student who has already successfully completed 18 or more credits of collegelevel courses at another college or university and has received Cincinnati State transfer credit for these courses is not required to complete an orientation course.
The orientation courses FYE 9002 and FYE 9003 introduce students to the college experience and to Cincinnati State's expectations and resources for new students. The orientation course earns college credit, but it does not fulfill general studies or core course requirements for degree or certificate programs.

## Residency Requirement

Students seeking a degree at Cincinnati State Technical and Community College, except those seeking the Associate of Technical Studies degree or other special training programs, must complete at least 45 credit hours of college-level, non-co-op/non-clinical credit hours at Cincinnati State. Credit hours earned in courses which combine class and lab hours will be considered "non-clinical" credit hours for the purpose of the residency requirement.
Students seeking an Associate of Applied Business or Associate of Applied Science degree must earn a minimum of fifty-percent of college-level, non-co-op-/non-clinical technical coursework (as identified in the Associate Degree Program Summary) required for their program at Cincinnati State. The resident credit hours required for the degree program are applicable to the College Residency Requirement.
Students seeking a certificate at Cincinnati State Technical and Community College must complete a minimum of fifty-percent of their certificate program requirements at Cincinnati State.
Advanced Standing Credit is not applicable to the College Residency Requirement. Credit earned at Cincinnati State through the Greater Cincinnati Consortium of Colleges and Universities is applicable to the College Residency Requirement.
In Associate of Technical Study and Associate of Individualized Study programs, the residency requirement shall be no less than 30 credits at Cincinnati State.
Students who transfer to Cincinnati State from another accredited Ohio college or university with a completed Transfer Module are subject to the guidelines in the "State of Ohio Policy for Institutional Transfer" statement found elsewhere in this section of the Catalog.

## Certificate Programs

To qualify for a certificate, a student must be admitted to a certificate program, fulfill the certificate program requirements as identified in the audit curriculum, attain at least a 2.0 cumulative and program GPA, and petition to graduate. The residency requirement for certificate-seeking students is the same as the requirement for degree-seeking students, as stated above.

## Graduation Petition

A student must file a graduation petition in order to graduate. Any matriculated student may submit a graduation petition when he or she has earned seventy credit hours (including transfer credit) toward an associate degree, or forty credit hours (including transfer credit) toward a one-year certificate. Petitions for certificates in programs shorter than one year should be submitted according to the schedule below and corresponding with the term when the student expects to complete the certificate (no specified number of credit hours required to petition). The petition must be filed in the Office of the Registrar twenty weeks prior to the date of completed coursework.

| Term* | Dates Graduation <br> Petitions Accepted |
| :--- | :--- |$\quad$ Date

Early Fall 2007
(9/05/07-11/05/07) June 4 to July 3, 2007 Nov. 5, 2007
Late Fall 2007
(11/13/07-1/29/08) Aug. 13 to Sept. 12, 2007 Jan. 29, 2008
Winter 2008
(2/04/08-4/07/08) Oct. 22 to Nov. 16, 2007 April 7, 2008
Spring 2008
(4/14/08-6/16/08) Jan. 14 to Feb. 13, 2008 June 16, 2008
Summer 2008
(6/23/08-8/24/08) Mar. 24 to Apr. 18, 2008 Aug. 24, 2008

* Term in which all coursework is completed.
** Petitions submitted during this period will have a preliminary review conducted by the program chair/advisor. Petitions submitted after this period will only have a final review conducted at the end of the term for which the student submitted. During the preliminary review process, if the student's academic evaluation reflects that the student has completed, or will complete, the degree requirements in an earlier term, the student's Program Chair can recommend to the Division Dean and to the Registrar an earlier graduation term.
A student's graduation date is the last day of the academic term in which the student completes all requirements. The College holds only one commencement ceremony each year.


## Participation in Commencement

A student may participate in the annual commencement ceremony if he or she meets all of the following requirements:

1. The student will satisfactorily complete all requirements for a degree during or before the Spring Term immediately preceding commencement, or the student can complete all remaining degree requirements during the Summer Term immediately following commencement. The ability to complete requirements in Summer Term is defined as needing no more than nine credits, which may include the final cooperative education, clinical, or internship placement.
2. The student has not previously participated in a Cincinnati State commencement ceremony to receive the same degree.
3. The student has submitted a Petition to Graduate form to the Registrar's Office, by the published deadline applicable to the term when the student will complete all degree requirements.
4. The student has submitted an Intent to Participate in Graduation form to the Student Activities Office by the published deadline.

## Graduation Honors

Associate degree candidates who earn at least 45 credit hours at Cincinnati State and achieve a cumulative grade point average of 3.50 or higher will graduate with honors. Honors are classified as follows:

Cum Laude 3.500-3.799
Magna Cum Laude 3.800-3.899
Summa Cum Laude 3.900-4.000
Students who complete their degree requirements in the term following commencement (Summer Term) are eligible for honors at commencement only if the remaining requirements are courses that do not affect GPA calculations, such as cooperative education and internship courses.

Honors designations in the printed program at commencement are projected based on GPA calculations made at the end of the Winter Term. The student's GPA at the conclusion of the program will determine the final honors designation.

## Academic Integrity Policy of Cincinnati State Technical and Community College

Ethical conduct is the obligation of every member of the Cincinnati State Technical and Community College community. Violations of academic integrity constitute serious breaches of ethical behavior. Academic integrity requires that all academic work be wholly the product of an identified individual.

## Violations of Academic Integrity

The following acts of misconduct are subject to disciplinary actions as described in Article III, section (2)(a) of the Cincinnati State Technical and Community College Student Code of Conduct.
A. Cheating: Cheating includes, but is not limited to:

1. Use of any unauthorized assistance in taking quizzes, tests, or examinations, or completing assignments.
2. Dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or completing assignments.
3. The acquisition, without permission, of tests or other academic materials belonging to a member of the College faculty or staff.
4. Copying computer files, text, or images of other students or downloading information from the Internet and representing this work as one's own.
B. Fabrication: The falsification or invention of any information or citation in an academic exercise. "Invented" information may not be used in any laboratory experiment or other academic exercise without authorization from the instructor. For example, it is improper to analyze one sample in an experiment and covertly "invent" data based on that single experiment for several more required analyses.
C. Facilitating Academic Dishonesty: Knowingly or negligently allowing one's own work to be used by other students or otherwise aiding in academic dishonesty.
D. Plagiarism: The representation of the words or ideas of another as one's own in any academic exercise. To avoid plagiarism, every direct quotation must be identified by quotation marks or by appropriate indentation and must be properly cited in the text or in a footnote. Acknowledgement is required when material from another source is paraphrased or summarized in whole or in part in one's own work. The correct form for documenting direct quotations and for acknowledging paraphrased material may be found in numerous writing manuals or hand-
books. The faculty in English at Cincinnati State Technical and Community College endorse the MLA style. However, some instructors may require other types of documentation. Students should refer to the instructor's syllabus for guidance on the proper style.
E. Denying Others Access to Information or Material: Denying others access to scholarly resources or deliberately impeding the progress of another student. Examples of offenses of this type include giving other students false or misleading information, making library material unavailable to others by stealing or defacing books or journals, or by deliberately misplacing or destroying reserved materials, stealing another's paper or project, or altering computer files that belong to another.

## Academic Integrity Violations Procedure

A. If an instructor has reason to believe a violation of academic integrity has occurred, the procedure will start in the classroom as outlined by the instructor's syllabus. Penalties imposed by the instructor are limited to those actions whose ramifications fall within the confines of the class, i.e., failure of the assignment or failure of the course. Only the Academic Vice President can impose suspension or dismissal from the College. The instructor has the option of filing a report of the incident with the Academic Vice President for documentation purposes.
B. The instructor may proceed with a formal charge of Academic Dishonesty and recommended sanctions to the Academic Vice President (AVP). The AVP may administer the disciplinary action recommended by the faculty member or a penalty deemed more appropriate. If the student accepts the charge, the AVP will assign sanctions, and the case will be closed. If the student challenges the finding of the AVP and maintains his/her innocence, the case will move forward to an Academic Integrity Panel. The student must submit the challenge to the AVP within five working days of the AVP's notification of sanctions.
C. The Academic Integrity Panel consists of:

- two students appointed by the Student Senate
- two faculty members appointed by the Faculty Senate
- one Dean appointed by the Academic Vice President

The case will be heard within ten working days of receipt of the student's written challenge.
D. The student accused of Academic Dishonesty may be accompanied at the Academic Integrity hearing by a person or persons of his/her choice, not to exceed three individuals. The role of the persons accompanying the student is limited to providing support to the student. Individuals accompanying the student may not present information or answer questions in place of the student.

1. Both the Academic Integrity Panel and the student may call witnesses for the hearing.
2. All hearings will be closed.
E. The decision of the Academic Integrity Panel regarding the guilt of the student is reached by majority vote in a session of Panel members only. The decision of the Panel is communicated in writing to the Academic Vice President, along with recommended sanctions, within ten working days of the final day of panel hearings. The findings of the Academic Integrity Panel and penalty administered by the Academic Vice President are final.

## Penalties

Possible sanctions are described in Article IV, section (D)(2) of the Cincinnati State Technical and Community College Student Code of Conduct. They include:
A. Warning
B. Probation
C. Loss of Privileges
D. Fines
E. Restitution
F. Discretionary Sanctions
G. College Suspension
H. College Expulsion

In each case of Academic Dishonesty that is brought forward to the office of Academic Affairs, the Academic Vice President or the Academic Integrity Panel determines the disciplinary action to be taken. The Academic Vice President administers the disciplinary action.


## Introduction

An important part of the mission of the College is the adherence to the principles of student rights and freedoms, as amplified by the "Joint Statement on Rights and Freedoms of Students," which was formulated by representatives of the American Association of University Professors, United States Student Association, Association of American Colleges, National Association of Student Personnel Administrators, National Association for Women Educators, as well as a number of other professional bodies. These principles speak to the standards and responsibilities of the academic community to ensure student access to education; free discussion in the classroom; maintenance of student records; the freedom to form organizations that promote the common interests of students, and the freedom of inquiry and expression; student participation in institutional government; as well as expectations of student conduct, and the exercise of rights of citizenship. Complete copies of the statement are available from the Dean of Enrollment and Student Development.

## Non-Discrimination Policy

Cincinnati State Technical and Community College affirms that no person shall, on the basis of race, color, national origin, sex and/or disability, be denied the benefits of, or be subjected to discrimination under any educational program or activity conducted under its auspices. This shall extend to employees therein and admission thereto. Inquiries concerning the application of this policy may be referred to the Executive Vice President of the College or to the coordinator designated below.
The Board of Trustees of Cincinnati State Technical and Community College has designated Eugene L. Breyer, Jr., Director of Human Resources, as the Title VI, Title IX, and Section 504 Coordinator for the College.
Complaints under Title VI (race, color and national origin), Title IX (sex), and/or Section 504 (disability) should be referred to:

Eugene L. Breyer, Jr.
Director of Human Resources
Cincinnati State Technical \& Community College
Room 176, Main Building
3520 Central Parkway
Cincinnati, Ohio, 45223-2690
Phone: (513) 569-1564
FAX: (513) 569-1719
E-mail: eugene.breyer@cincinnatistate.edu

## Dissemination Procedure:

This Policy shall be disseminated through the following means:

- Cincinnati State Web site (linked to home page)
- Student Handbook
- College Catalog
- Administrator's Manual
- Student Code of Conduct (by reference)
- Adjunct Handbook
- New Employee Orientations
- College-wide Postings (all campuses)
- Admissions Book
- College Success Strategies Course (required of all new students)

Legal Refs.:

- Civil Rights Act of 1964, as amended in 1972, Title VI, Title VII
- Executive Order 11246, 1965, as amended by Executive Order 11375
- Equal Employment Opportunity Act of 1972, Title VII
- Education Amendments of 1972, Title IX (P.L. 92-318)
- 45 CFR, Parts 81, 86 (Federal Register June 4, 1985, August 11, 1975)
- Public Law 93-162 (Section 504)


## Title IX and Section 504 Grievance Procedures

## Students Alleged Discrimination Grievance Procedures

In accordance with Federal and State OCR (Office for Civil Rights) Guidelines, any student who believes that Cincinnati State Technical \& Community College or any of the College's staff, instructors, and/or administrators have inadequately applied the principles and/or regulations of Title VI of the Civil Rights Act of 1964 (race, color, national origin), Title IX of the Education Amendment Act of 1972 (sex/gender), and/or Section 504 of the Rehabilitation Act of 1973 (disability) may bring forward a complaint which shall be referred to as a formal grievance. However, whenever possible and practical, an informal solution to the alleged grievance is encouraged and should be attempted with the division dean or assistant dean.
If an informal acceptable solution cannot be attained, the student shall reduce the complaint to writing and formal Title IX and Section 504 grievance procedures shall commence. The complainant may file her/his complaint directly with the Office for Civil Rights, United States Department of Education, and/or use the internal grievance set forth as follows:

## Step 1

An alleged formal discrimination grievance complaint should first be made to the Dean of Enrollment and Student Development within ten school days from the date of the incident.

## Step 2

If not resolved at Step 1, the decision may be appealed to the College's Title VI/Title IX/Section 504 Coordinator within five school days from the date of the Step 1 decision.

Title VI/Title IX/Section 504 Coordinator
Eugene L. Breyer, Jr.
Director of Human Resources
Cincinnati State Technical \& Community College
Room 176 Main Building
3520 Central Parkway
Cincinnati, Ohio, 45223-2690
Phone: (513) 569-1564
FAX: (513) 569-1719
E-mail: eugene.breyer@cincinnatistate.edu
Step 3
If not resolved at Step 2, the decision may be appealed to the College's Executive Vice President, who functions as the final
mediator at the local level, within five school days from the date of the Step 2 decision.

## Step 4

If not resolved at Step 3, the decision may be appealed by the complainant to the Office for Civil Rights, U.S. Department of Education, 55 Erieview Plaza, Room 300, Cleveland, Ohio, 44114-1816.

## Code of Conduct

(This Student Code of Conduct is promulgated under the provisions of Ohio Revised Code section 111.15, amplifies Chapter 3346.21 and modifies Ohio Administrative Code Rules 3367:4-198 and 3357:4-52 as they apply to student behavior and conduct.)
(Adapted from the Journal of College and University Law Published by the National Association of College and University Attorneys and the Notre Dame Law School)

Questions about this code should be directed to: Susan Paddock, Dean
Enrollment and Student Development
Cincinnati State Technical and Community College Room 163 Main Building
3520 Central Parkway
Cincinnati, Ohio 45223-2690
(513) 569-1640

E-mail: susan.paddock@cincinnatistate.edu

## 3357:4-1-99 Student Code of Conduct

## A. ARTICLE I: Definitions

(1) The term "COLLEGE" means Cincinnati State Technical and Community College.
(2) The term "STUDENT" includes all persons taking courses at the college both full-time and part-time, pursuing undergraduate, or professional studies and those who attend postsecondary educational institutions other than Cincinnati State Technical and Community College. Persons who are not officially enrolled for a particular term but who have a continuing relationship with the college are considered "students."
(3) The term "FACULTY MEMBER" means any person hired by the college to conduct classroom activities.
(4) The term "COLLEGE OFFICIAL" includes any person employed by the college performing assigned administrative or professional responsibilities.
(5) The term "MEMBER OF THE COLLEGE COMMUNITY" includes any person who is a student, faculty member, college official or any other person employed by the college. A person's status in a particular situation shall be determined by the chief student services officer.
(6) The term "COLLEGE PREMISES" includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the college including adjacent streets and sidewalks.
(7) The term "ORGANIZATION" means any number of persons who have complied with the formal requirements for college recognition or registration.
(8) The term "JUDICIAL BODY" means any person or
persons authorized by the chief student services officer to determine whether a student has violated the student code and to recommend imposition of sanctions.
(9) The term "JUDICIAL ADVISOR" means the chief student services officer or a college official authorized on a case-bycase basis by the chief student services officer to impose sanctions upon students found to have violated the student code. The chief student services officer may authorize a judicial advisor to serve simultaneously as a judicial advisor and the sole member or one of the members of a judicial body. Nothing shall prevent the chief student services officer from authorizing the same judicial advisor to impose sanctions in all cases.
(10) The term "APPELLATE BOARD" means any person or persons authorized by the chief student services officer to consider an appeal from a judicial body's determination that a student has violated the student code or from the sanctions imposed by the judicial advisor.
(11) The term "SHALL" is used in the imperative sense.
(12) The term "MAY" is used in the permissive sense.
(13) The chief student services officer is that person designated by the College President to be responsible for the administration of the student code.
(14) The term "POLICY" is defined as the written regulations of the college as found in, but not limited to, the student code handbook, and undergraduate catalogs.
(15) The term "CHEATING" includes, but is not limited to:
(1) use of any unauthorized assistance in taking quizzes
or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the college faculty or staff.
(16) The term "PLAGIARISM" includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

## B. Article II: Judicial Authority

(1) The judicial advisor shall determine the composition of judicial bodies and appellate boards and determine which judicial body, judicial advisor and appellate board shall be authorized to hear each case.
(2) The judicial advisor shall develop policies for the administration of the judicial program and procedural rules for the conduct of hearings which are consistent with provisions of the student code.
(3) Decisions made by judicial body and/or judicial advisor shall be final, pending the normal appeal process.
(4) A judicial body may be designated as arbiter of disputes within the student community in cases which do not involve a violation of the student code. All parties must agree to arbitration, and to be bound by the decision with no right of appeal.

## C. Article III: Proscribed Conduct

## (1) JURISDICTION OF THE COLLEGE

Generally, college jurisdiction and discipline shall be limited to conduct which occurs on college premises or which adversely affects the college community and/or the pursuit of its objectives.

## (2) CONDUCT - RULES AND REGULATIONS

Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Article IV:
(a) Acts of dishonesty, including but not limited to the following:
(i) cheating, plagiarism, or other forms of academic dishonesty.
(ii) furnishing false information to any college official, faculty member, or office.
(iii) forgery, alteration, or misuse of any college document, record, or instrument of identification.
(iv) tampering with the election of any college-recognized student organization.
(b) Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other college activities, including its public-service functions on or off campus, or other authorized non-college activities, when the act occurs on college premises.
(c) Physical abuse, verbal abuse, threats, intimidation, harassment, coercion and/or other conduct which threatens or endangers the health or safety of any person.
(d) Attempted or actual theft of and/or damage to property of the college or property of a member of the college community or other personal or public property.
(e) Hazing, defined as an act which endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in, a group or organization.
(f) Failure to comply with directions of college officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
(g) Unauthorized possession, duplication or use of keys to any college premises or unauthorized entry to or use of college premises.
(h) Violation of published college policies, rules, or regulations.
(i) Violation of federal, state, or local law on college premises or at college-sponsored or supervised activities.
(j) Use, possession, or distribution of narcotic or other controlled substances except as expressly permitted by law.
(k) Use, possession, or distribution of alcoholic beverages except as expressly permitted by the law and college regulations, or public intoxication.
(I) Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on college premises.
(m) Participation in a campus demonstration which disrupts the normal operations of the college and infringes on the rights of other members of the college community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction which unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.
( n ) Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college-sponsored or supervised functions.
(o) Conduct which is disorderly, lewd, or indecent; breach of peace; or aiding, abetting, or procuring another person to breach the peace on college premises or at
functions sponsored by, or participated in by, the college.
(p) Theft or other abuse of computer time, including but not limited to:
(i) unauthorized entry into a file, to use, read, or change the contents, or for any other purpose.
(ii) unauthorized transfer of a file.
(iii) unauthorized use of another individual's identification and password.
(iv) use of computing facilities to interfere with the work of another student, faculty member or college official.
(v) use of computing facilities to send obscene or abusive messages.
(vi) use of computing facilities to interfere with normal operation of the college computing system. (See Appendix I for entire policy.)
(q) Abuse of the judicial system, including but not limited to:
(i) failure to obey the summons of a judicial body or college official.
(ii) falsification, distortion, or misrepresentation of information before a judicial body.
(iii) disruption or interference with the orderly conduct of a judicial proceeding.
(iv) institution of a judicial proceeding knowingly without cause.
(v) attempting to discourage an individual's proper participation in, or use of, the judicial system.
(vi) attempting to influence the impartiality of a member of a judicial body prior to, and/or during, and/or after a judicial proceeding.
(vii) harassment (verbal or physical), and/or intimidation of a member of a judicial body prior to, during and/or after a judicial proceeding.
(viii) failure to comply with the sanction(s) imposed under the student code.
(ix) influencing or attempting to influence another person to commit an abuse of the judicial system.

## (3) VIOLATION OF LAW AND COLLEGE DISCIPLINE

(a) If a student is charged only with an off-campus violation of federal, state, or local laws, but not with any other violation of this code, disciplinary action may be taken by the college and sanctions imposed for grave misconduct which demonstrates flagrant disregard for the college community. In such cases, no sanction may be imposed unless the student has been found guilty in a court of law or has declined to contest such charges, although not actually admitting guilt (e.g., "no contest" or "nolo contendere").
(b) Cincinnati State Technical and Community College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this student code, for example, if both violations result from the same factual situation, without regard to the pendency of civil litigation in court or criminal arrest and prosecution.
Proceedings under this student code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off-campus.
(c) When a student is charged by federal, state, or local authorities with a violation of law, the college will not request or agree to special consideration for that individual because of his or her status as a student. If the alleged offense is also the subject of a proceeding before a judicial body under the student code, however, the college may advise off-campus authorities of the existence of the student code and of how such matters will be handled internally within the college
community. The college will cooperate fully with law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators. Individual students and faculty members, acting in their personal capacities, remain free to interact with government representatives as they deem appropriate.

## D. Article IV: Judical Policies

## (1) CHARGES AND HEARING

a. Any member of the college community may file charges against any student for misconduct. Charges shall be prepared in writing and directed to the judicial advisor, or the administrative designee, responsible for the administration of the college judicial system. Any charge should be submitted as soon as possible after the event takes place, preferably within (24 hours).
In the event of an incident that is life threatening or that poses serious injury, the campus police department will operate as the judicial advisor designee. The judicial advisor or the administrative designee will be notified, as soon as possible, not later than 24 hours after the incident.
b. The judicial advisor, or the administrative designee, may conduct an investigation to determine if the charges have merit and/or if they can be disposed of administratively by mutual consent of the parties involved on a basis acceptable to the judicial advisor. Such disposition shall be final and there shall be no subsequent proceedings. If the charges cannot be disposed of by mutual consent, the judicial advisor may later serve in the same matter as the judicial body or a member thereof.
c. All charges shall be presented to the accused student in written form. A time shall be set for a hearing, not less than five nor more than 15 calendar days after the student has been notified. Maximum time limited for scheduling of hearings may be extended at the discretion of the judicial advisor.
d. Hearings shall be conducted by a judicial body according to the following guidelines:
(i) Hearings normally shall be conducted in private. At the request of the accused student, and subject to the discretion of the judicial advisor, a representative of the student press may be admitted, but shall not have the privilege of participating in the hearing.
(ii) Admission of any person to the hearing shall be at the discretion of the judicial body and/or its judicial advisor.
(iii) In hearings involving more than one accused student, the judicial advisor of the judicial body, in his/her discretion, may permit the hearings concerning each student to be conducted separately.
(iv) The complainant and the accused have the right to be assisted by any advisor they choose, at their own expense. The advisor may be an attorney. The complainant and/or the accused is responsible for presenting his or her case and, therefore, advisors are not permitted to speak or to participate directly in any hearing before a judicial body.
(v) The complainant, the accused and the judicial body shall have the privilege of presenting witnesses, subject to the right of cross examination by the judicial body.
(vi) Pertinent records, exhibits and written statements may be accepted as evidence for consideration by a judicial body at the discretion of the judicial advisor.
(vii) All procedural questions are subject to the final decision of the judicial advisor of the judicial body.
(viii) After the hearing, the judicial body shall determine (by majority vote if the judicial body consists of more than one person) whether the student has violated each section of the student code which the student is charged with violating.
(ix) The judicial body's determination shall be made on the basis of whether it is more likely than not that the accused student violated the student code.
e. There shall be a single verbatim record, such as a tape recording of all hearings before a judicial body. The record shall be the property of the college.
f. Except in the case of a student charged with failing to obey the summons of a judicial body or college official, no student may be found to have violated the student code solely because the student failed to appear before a judicial body. In all cases, the evidence in support of the charges shall be presented and considered.

## (2) SANCTIONS

a. The following sanctions may be imposed upon any student found to have violated the student code.
(i) WARNING - a notice in writing to the student that the student is violating or has violated institutional regulations.
(ii) PROBATION - a written reprimand for violation of specified regulations. Probation is for a designated period of time and includes the probability of more severe disciplinary sanctions if the student is found to be violating any institutional regulation(s) during the probationary period.
(iii) LOSS OF PRIVILEGES - denial of specified privileges for a designated period of time.
(iv) FINES - previously established and published fines may be imposed.
(v) RESTITUTION - compensation for loss, damage or injury. This may take the form of appropriate service and/or monetary or material replacement.
(vi) DISCRETIONARY SANCTIONS - work assignments, service to the college or other related discretionary assignments (such assignments must have the prior approval of the judicial advisor).
(vii) COLLEGE SUSPENSION - separation of the student from the college for a definite period of time, after which the student is eligible to return. Conditions for re-admission may be specified.
(viii) COLLEGE EXPULSION - permanent separation of the student from the college.
b. More than one of the sanctions listed above may be imposed for any single violation.
c. Other than college expulsion, disciplinary sanctions shall not be made part of the student's permanent academic record, but shall become part of the student's confidential record. Upon graduation, the student's confidential record may be expunged of disciplinary actions other than, college suspension or college expulsion, upon application to the judicial advisor. Cases involving the imposition of sanctions other than college suspension or college expulsion shall be expunged from the student's confidential record three years after final disposition of the case.
d. The following sanctions may be imposed upon groups or organizations:
a. those sanctions listed above in paragraphs (c)(2)(a)(i) to (c)(2)(a)(viii).
b. deactivation-loss of all privileges, including college recognition, for a specified period of time.
e. In each case in which a judicial body determines that a student has violated the student code, the sanction(s) shall be determined and imposed by the judicial advisor. In cases in which persons other than or in addition to the judicial advisor have been authorized to serve as the judicial body, the recommendation of all members of the judicial body shall be considered by the judicial advisor in determining and imposing sanctions. The judicial advisor is not limited to sanctions recommended by members of the judicial body. Following the hearing, the judicial body and the judicial advisor shall advise the accused in writing of its determination and of the sanction(s) imposed, if any.

## (3) INTERIM SUSPENSION

In certain circumstances, the chief student services officer or designee, may impose a college suspension prior to the hearing before a judicial body:
(i) Interim suspension may be imposed only: a) to ensure the safety and well-being of members of the college property; b) to ensure the student's own physical or emotional safety and wellbeing; or c) if the student poses a definite threat of disruption of or interference with the normal operations of the college.
(ii) A standing appellate board will be formed at the direction of the chief student services officer who will ensure that it is fairly composed of representatives of the student body, staff, faculty, and administration of Cincinnati State Technical and Community College.
(iii) During the interim suspension, students shall be denied access to the campus (including classes) and/or all other college activities or privileges for which the student might otherwise be eligible, as the chief student services officer or the judicial advisor may determine to be appropriate.

## (4) APPEALS

a. A decision reached by the judicial body or a sanction imposed by the judicial advisor may be appealed by accused students or complainants to an appellate board within five school days of the decision. Such appeals shall be in writing and shall be delivered to the chief student services officer, judicial advisor, or his/her designee. The appellate board shall be composed of seven members, four chosen by the chief student services officer, and three chosen by the accused student or complainant. All shall be members of the college community.
b. Except as required to explain the basis of new evidence, an appeal shall be limited to review of the verbatim records of the initial hearing and supporting documents for one or more of the following purposes:
(i) To determine whether the original hearing was conducted fairly in light of the charges and evidences presented, and in conformity with prescribed procedures, giving the complaining party a reasonable opportunity to prepare and present evidence that the student code was violated, and giving the accused student a reasonable opportunity to prepare and to present a rebuttal of those allegations.
(ii) To determine whether the decision reached regarding the accused student was based on substantial evidence, that is, whether the facts in the case were sufficient to establish that a violation of the student code occurred.
(iii) To determine whether the sanction(s) imposed were appropriate for the violation of the student code which the student was found to have committed.
(iv) To consider new evidence, sufficient to alter a decision, or other relevant facts not brought out in the original hearing,
because such evidence and/or facts were not known to the person appealing at the time of the original hearing.
c. If an appeal is upheld by the appellate board, the matter shall be remanded to the original judicial body and judicial advisor for re-opening of the hearing to allow reconsideration of the original determination and/or sanction(s).
d. In cases involving appeals by students accused of violating the student code, review of the sanction by the appellate board may not result in more severe sanction(s) for the accused student. Instead, following an appeal, the chief student services officer may, upon review of the case, reduce, but not increase, the sanctions, imposed by the judicial advisor.
e. In cases involving appeals by persons other than students accused of violating the student code, the chief student services officer may, upon review of the case, reduce or increase the sanctions imposed by the judicial advisor or remand the case to the original judicial body and judicial advisor.

## E. Article V: Interpretation and Review

(1) Any question of interpretation regarding the student code shall be referred to the chief student services officer for final determination.
(2) The student code will be reviewed every three years under the direction of the chief student services officer and/or judicial advisor.
R: 4/15/00

# Cincinnati State Technical and Community College Policy on Responsible Use of Information Technology and Resources 

## Introduction and General Statement About Responsible Use of Information Technology and Resources

## Introduction

This policy contains the College's philosophy, policy, rules and standards regulating the use of technology resources. It is the responsibility of all students and all who are employed by the College, whether they are employed as students, temporary personnel, contractors, consultants, staff, or faculty to implement and comply with this policy and all other applicable regulations and to maintain the highest standard of ethics when dealing with information technology resources.
Note: This policy conforms to Ohio IT Policy ITP-E. 8 "Use of E-mail, Internet and Other IT Resources."

## General Statement

In support of its mission of teaching and community service, Cincinnati State Technical and Community College acquires,
develops, maintains, and provides access to information technology and resources for students, temporary personnel, contractors, consultants, faculty and staff. These resources include but are not limited to telecommunications systems, computers, laptops, PDA's, computer terminals, peripheral computer hardware, software, networks, and the information that can be accessed using these tools. These computing resources are intended for Collegerelated use, including direct and indirect support of the College's instruction, research, and service missions; College administrative functions; student and campus life activities; and the free exchange of ideas.
The rights of free expression and academic freedom apply to the use of College computing resources. So, too, however, do the responsibilities and limits associated with those rights. All who use the College's computing resources must act responsibly, in accordance with the highest standard of ethical and legal behavior. Thus, legitimate use of computing resources does not extend to whatever is technically possible. Users must abide by all applicable restrictions, whether or not they are built into the client device, operating system, application software, or network and whether or not they can be circumvented by technical means.
This policy applies to all users of College computing resources, whether affiliated with the College or not, and whether the users access resources from on campus or remote locations. This policy applies equally to College-owned or College-leased technology resources. Additional policies may apply to specific computers, computer systems, or networks provided or operated by specific units of the College or to uses within specific units.

## Policy Statement

All College computing resource users must:

1. Comply with all federal, Ohio and other applicable law; all generally applicable College rules and policies; and all applicable contracts and licenses. Examples of such laws, rules, polices, contracts, and licenses include: the laws of libel, privacy, copyright, trademark, obscenity, and child pornography; the Family Educational Rights and Privacy Act (FERPA); the Health Insurance Portability and Accountability Act (HIPAA); the Electronic Communications Privacy Act and the Computer Fraud and Abuse Act, which prohibit "hacking", "cracking", and similar activities; the College's code of student conduct; the Cincinnati State Technical and Community College Administrators' Manual, Faculty Handbook, the College's sexual harassment policy; and all applicable software licenses.
Users must respect copyrights, intellectual-property rights, ownership of files, and passwords. Unauthorized copying of files or passwords belonging to others or to the College may constitute plagiarism or theft. Accessing or modifying files without authorization (including altering information, introducing viruses or Trojan horses, or damaging files) is unethical, may be illegal, and may lead to sanctions.
Users who engage in electronic communications with persons in other states or countries or on other systems or networks should be aware that they may also be subject to the laws of those other states and countries and the rules and policies of those other systems and networks. Users are responsible for ascertaining, understanding, and complying with the laws, rules, policies, contracts, and licenses applicable to their particular uses.
Cincinnati State extends these policies and guidelines to systems outside the College that are accessed via the College's
facilities (e.g., electronic mail or remote logins using the College's Internet connections).
2. Use only those computing resources that they are authorized to use and use them only in the manner and to the extent authorized. Ability to access computing resources does not, by itself, imply authorization to do so. Users are responsible for ascertaining what authorizations are necessary and for obtaining them before proceeding. Accounts, passwords, and other authentication mechanisms, may not, under any circumstances, be shared with, or used by, persons other than those to whom they have been assigned by the College.
3. Respect the finite capacity of those resources and limit use so as not to consume an unreasonable amount of those resources or to interfere unreasonably with the activity of other users. Although there is no set bandwidth, disk space, CPU time, or other limit applicable to all uses of College computing resources, the College may require users of those resources to limit or refrain from specific uses in accordance with this principle. The reasonableness of any particular use will be judged in the context of all of the relevant circumstances.
4. Limit the personal use of College computing resources and refrain from using those resources for personal commercial purposes or for personal financial or other gain. Personal use of College computing resources is permitted on a limited basis when it does not interfere with the performance of the user's job or other College responsibilities, and is otherwise in compliance with this and other College policy. College computing resources are not to be used for commercial purposes without written authorization from the College. In such cases, the College may require payment of appropriate fees. This usage does not include links to personal Web pages. This usage is subject to monitoring by the ITS staff. Further limits may be imposed upon personal use in accordance with normal supervisory procedures.
Any personal use of computing resources that disrupts or interferes with College business, incurs an undue cost to the College, could potentially embarrass or harm the College, or has the appearance of impropriety is strictly prohibited. Personal use that is strictly prohibited includes, but is not limited to, the following:

- Violation of Law. Violating or supporting and encouraging the violation of local, state or federal law is strictly prohibited.
- Illegal Copying. Downloading, duplicating, disseminating, printing or otherwise using copyrighted materials, such as software, texts, music and graphics, in violation of copyright laws is strictly prohibited.
- Operating a Business. Operating a business, directly or indirectly, for personal gain is strictly prohibited.
- Accessing Personals Services. Accessing or participating in any type of personals ads or services, such as or similar to dating services, matchmaking services, companion finding services, pen pal services, escort services, or personals ads is strictly prohibited.
- Accessing Sexually Explicit Material. Downloading, displaying, transmitting, duplicating, storing, or printing sexually explicit material is strictly prohibited.
- Harassment. Downloading, displaying, transmitting, duplicating, storing, or printing material that is offensive, obscene, threatening, or harassing is strictly prohibited.
- Gambling or Wagering. Organizing, wagering on, participating in, or observing any type of gambling event or activity is strictly prohibited.
- Mass E-mailing. Sending unsolicited e-mails or facsimiles in bulk or forwarding electronic chain letters in bulk to
- recipients inside or outside the state environment is strictly prohibited.
- Solicitation. Except for agency-approved efforts, soliciting for money or support on behalf of charities, religious entities, or political causes is strictly prohibited.
- Damage or Theft. Any attempt by users to damage or disrupt the operation of computing equipment, communications equipment, or communications lines; or attempting to remove College owned or leased equipment without written approval of Chief Information Officer (CIO) is strictly prohibited and will be subject to disciplinary action.
- Participation in Online Communities. Any use of stateprovided IT resources to operate, participate in, or contribute to an online community including, but not limited to, online forums, chat rooms, listservs, blogs, wikis, peer-to-peer file sharing, and social networks, is strictly prohibited unless organized or approved by the agency.
- Internet Security. A public servant participating in an online community organized or approved by the agency shall adhere to the security requirements and policies by the College.
- Unauthorized Installation or Use of Software. Installing, copying, or using software including, but not limited to, instant messaging clients and peer-to-peer file sharing software, or personally-owned software, without the approval of the CIO is strictly prohibited. Installation and use of unlicensed software is strictly prohibited.
Copying College-owned or licensed software or data for personal or external use without prior written approval; or attempting to modify or copy College-owned or another users licensed software or data without prior approval is strictly prohibited.
- Unauthorized Installation or Use of Hardware. Installing, attaching, or physically or wirelessly connecting any kind of hardware device to any state-provided IT resource, including computers and network services, without prior authorization is strictly prohibited.

5. Refrain from stating or implying that they speak on behalf of the College and from using College trademarks and logos without authorization to do so. Affiliation with the College does not, by itself, imply authorization to speak on behalf of the College. Authorization to use College trademarks and logos may be granted only by Cincinnati State. The use of appropriate disclaimers is encouraged. Personal Web pages linked to the College Web site should disclaim association with Cincinnati State.
6. Respect That There is No Expectation of Privacy. This policy serves as notice to users that they shall have no reasonable expectation of privacy in conjunction with their use of collegeprovided IT resources. Contents of College computers may be subject to review, investigation, and public disclosure. Access and use of the Internet, including communication by e-mail and instant messaging and the content thereof, are not confidential, except in certain limited cases recognized by state or federal law. The College reserves the right to view any files and electronic communications on state college computers, monitor and log all electronic activities, and report findings to appropriate supervisors and authorities.
While the College does not routinely monitor individual usage of its computing resources, the normal operation and maintenance of College computing resources requires the backup and caching of data and communications, the logging of activity, the monitoring of general usage patterns, and other such activities that are necessary for the rendition of service.

The College may also monitor the activity and accounts of individual users of College computing resources, including individual sessions and communications, without notice. This may occur:
(a) when the user has voluntarily made them accessible to the public, as by posting to Usenet or a Web site;
(b) when it reasonably appears necessary to do so to protect the integrity, security, or functionality of College or other computing resources or to protect the College from liability;
(c) when there is reasonable cause to believe that the user has violated, or is violating, this policy;
(d) when an account or device appears to be engaged in unusual or unusually excessive activity, as indicated by the monitoring of general activity and usage patterns; or
(e) when it is otherwise required or permitted by law.

Any such individual monitoring, other than that specified in "(a)", or required by law, or necessary to respond to perceived emergency situations, must be authorized in advance by the Chief Information Officer (CIO) or a designee of same.
The College, at its discretion, may disclose the results of any such general or individual monitoring, including the contents and records of individual communications, to appropriate College personnel or law enforcement agencies and may use those results in appropriate College disciplinary proceedings
7. Impeding Access. Impeding the College's ability to access, inspect, and monitor IT resources is strictly prohibited. A user shall not encrypt or conceal the contents of any file or electronic communications on state computers without proper authorization. A user shall not set or manipulate a password on any college computer, program, file, or electronic communication without proper authorization
8. Misrepresentation. Concealing or misrepresenting one's name or affiliation to mask unauthorized, fraudulent, irresponsible, or offensive behavior in electronic communications is strictly prohibited.

## Privacy and Security Issues Regarding Responsible Use of Computing Resources

## Protection of College Data

Users of College information resources-especially faculty and staff—have a responsibility to protect sensitive information. This includes but is not limited to student and employee personal information and College financial data. All users are expected to report suspected or discovered security incidents, such as social engineering and virus attacks.

## Privacy and Security

Information technology provides important means of communication, both public and private. Users and system administrators must respect the privacy of person-to-person communication in all forms, including voice (telephone), text (electronic mail and file transfer), and image (graphics and television). The principle of freedom of speech will apply to public communications in all these forms.

The College employs various measures to protect the security of its computing resources and users accounts. However, users should be aware that the College does not and cannot guarantee such security.

Any use of college-provided IT resources that interferes with or compromises the security or operations of any computer system, or compromises public trust, is strictly prohibited. Privacy and security violations can be, but are not limited to the following:

- Confidentiality Procedures. Using IT resources to violate or attempt to circumvent confidentiality procedures is strictly prohibited.
- Accessing or Disseminating Confidential Information. Accessing or disseminating confidential information or information about another person without authorization is strictly prohibited.
- Accessing Systems without Authorization. Accessing networks, files or systems, or an account of another person without proper authorization is strictly prohibited. Users are individually responsible for safeguarding their passwords which means they are not to disclose them to another user.
- Distributing Malicious Code. Distributing malicious code or circumventing malicious code security is strictly prohibited.


## Enforcement of this Policy

The College demands a high standard of conduct for all students, faculty, and staff in the use of, and access to the College's information technology and resources. Anyone whose conduct misuses the College's information technology and resources is subject to College disciplinary action. This conduct includes, but is not limited to, the aforementioned following policies and security and privacy issues.
Alleged violations of this policy shall be dealt with in accordance with the procedures in the Cincinnati State Technical and Community College personnel policies described in the Employee Handbook, Administrator's Manual, College collective bargaining agreements, and the Student Code of Conduct. The College treats violations of this policy seriously and will pursue criminal and civil prosecution where appropriate.
Whenever it becomes necessary to enforce College rules or policies, an authorized administrator may: disallow network connections by certain computers (even departmental and personal ones); require adequate identification of computers and users on the network; undertake audits of software or information on shared systems where policy violations are possible; take steps to secure compromised computers that are connected to the network; or deny access to computers, the network, and institutional software and databases.

## Sanctions Regarding Misuse of Computing Resources

Users who violate this policy may be denied access to College computing resources and may be subject to other penalties and disciplinary action, both within and outside of the College. Violations will normally be handled through the College disciplinary procedures applicable to the relevant user. Alleged violations by students will normally be investigated, and the Student Services Office will normally impose any penalties or other discipline.
However, the College, through its information managers, may suspend or block access to an account prior to the initiation or completion of such procedures; when it reasonably appears necessary to do so, and in order to protect the integrity, security, or functionality of College or other computing resources; or to protect the College from liability.

The College may also refer suspected violations of applicable law to appropriate law enforcement agencies.

## Sexual Harassment Policy

Cincinnati State Technical and Community College affirms its commitment to ensuring an environment for all employees and students which is fair, humane, and respectful - an environment which supports and rewards employee and student performance on the basis of relevant considerations such as ability and effort. Behaviors which inappropriately assert sexuality as relevant to employee or student performance are damaging to this environment.
Title VII of the Civil Rights Act of 1969 and Title IX of the Educational Amendments of 1972 as interpreted by Federal Regulation prohibit sexual harassment.

## Definition

Sexual favors may not be required explicitly or implicitly as a term or condition of an individual's employment or student status. The submission to or rejection of sexual favors may not be used as a basis for employment or educational decisions. Sexual conduct which has the purpose or effect of unnecessarily interfering with an individual's work or student performance or creating an intimidating, hostile or offensive working or educational environment is prohibited.
Such conduct may include:

- verbal harassment or abuse
- subtle pressure for sexual activity
- sexist remarks about a woman's or man's clothing, body, or sexual activities
- unnecessary touching, patting, or pinching
- leering or ogling of a woman's or man's body
- constant brushing against a woman's or man's body
- demanding sexual favors accompanied by implied or overt threats concerning one's job, grades, letters of recommendation, etc.
- physical assault


## Substance Abuse Policy

Cincinnati State Technical and Community College prohibits the unlawful manufacture, possession, use, or distribution of drugs on its property or as a part of its activities. Cincinnati State also prohibits the use or possession of alcoholic beverages on campus property except as authorized by campus policy. Students and staff may be accountable to both civil authorities and to the College administration for drug and alcohol related actions which are a violation of federal, state or local laws, or the College policy as stated below. In 1989, the College Board of Trustees approved a Drug Free Workplace policy found below.

## Policy For Drug-Free Workplace: $\mathbf{8 9 . 4 9}$

The unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Cincinnati State workplace. Employees who violate this prohibition will be subject to disciplinary action up to and including immediate discharge.

All employees are obligated to the terms of this policy and must notify their immediate supervisor of conviction for any criminal drug statute violation occurring in the workplace no later than five days after such conviction.
Each employee of the College will receive a written copy of this POLICY STATEMENT regarding a Drug-Free Workplace and will be notified that, as a condition of employment, he or she must abide by this POLICY STATEMENT and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace not later than five days after such conviction.
Upon receiving notice that an employee who is engaged in the performance of a federal contract has had any criminal drug statute conviction for a violation occurring in the workplace, Cincinnati State will notify the federal contracting agency within ten days. The College will impose a sanction on, or require participation in, a drug abuse assistance/rehabilitation program by the convicted employee.
Substance abuse is a serious problem in our society. In response to this problem, Cincinnati State offers the following educational activities and personal assistance to all members of the campus community.

- An annual distribution of this statement to all students and employees of the College.
- Health/Wellness Information is available in the hall outside the Admission Office.
- The Department of Athletics and Student Activities has an alcohol/drug education assistance program for athletes.
- Two College-wide workshops on issues dealing with substance abuse are held during each academic year.
- Information and literature on substance abuse is available in the Counseling Center, Room 168 Main Building.
- Students, as well as faculty and staff members who may have alcohol or other substance abuse problems, may receive confidential counseling and referral to appropriate community agencies from the counselors in the Counseling Center, Room 168 Main Building, or employees may contact the Office of Human Resources for assistance.
Early recognition, intervention, and treatment for substance abuse is necessary to avoid detrimental effects to physical and mental health. Health risks associated with substance abuse include, but are not limited to:
- Physical dependence
- Psychological dependence
- Alterations in the body's immune system
- Digestive problems
- Liver complications
- Neuropsychological complications
- Nutritional deficiencies
- Certain cancers
- Cardiovascular complications
- Respiratory complications
- An increased risk of contracting AIDS
- Deterioration in learning ability, memory, and judgment
- Placental transfer resulting in low birth weight, mental retardation, congenital malformation, and neonatal addiction
- Moral deterioration
- Deterioration of personal relationships
- Death may result from continued substance abuse.


## Alcohol and the Law

You have a responsibility to follow the laws of your city, state, and nation. If you fail to live up to that responsibility, you may face certain penalties. Some of the potential legal consequences of committing an alcohol-related criminal offense are listed in this statement.

## Underage Consumption, Purchasing or Possession of Alcohol

The legal drinking age in Ohio for consumption of an alcoholic beverage is 21 years old. Anyone purchasing, possessing or consuming alcohol prior to their 21 st birthday is guilty of a first degree misdemeanor. The maximum penalties associated with this offense are six months imprisonment or a $\$ 1,000$ fine or both. A 20-year-old student, therefore, risks being imprisoned and fined when he or she decides to drink alcohol.

## Providing Alcohol to an Underage Person

A person who furnishes alcohol to an underage person is guilty of a first degree misdemeanor. The maximum penalties associated with this offense are six months imprisonment or $\$ 1,000$ fine or both. A social host, therefore, risks being fined and imprisoned when he or she furnishes alcohol to a person he or she knows or should know is not 21 years of age.

## Fake ID

Possession or display of a fictitious operator's license is a first degree misdemeanor. The offense includes mere possession of a fictitious license or display of someone else's valid operator's license. The maximum penalties for this offense are six months imprisonment or a $\$ 1,000$ fine or both. Moreover, if the fictitious operator's license is utilized to purchase alcohol or enter an establishment that serves alcohol, the minimum fine must be at least $\$ 250$ and the person displaying the fictitious operator's license may have his or her valid operator's license suspended for three years.

## Driving Under the Influence of Alcohol or Drugs (DUI)

In Ohio, a person may not operate a motor vehicle if he or she is impaired by alcohol and/or drugs. The maximum penalties for operating a vehicle while under the influence are six months imprisonment (mandatory three days in jail) or a $\$ 1,000$ fine or both. In addition, the operator must forfeit his or her driving privileges for three months.

## Open Container

It is illegal to possess in public an open container of an alcoholic beverage. If convicted of this offense, the maximum penalty is a $\$ 100$ fine. Consumption of alcohol in a motor vehicle is a fourth degree misdemeanor with maximum penalties of 30 days imprisonment or a $\$ 250$ fine or both.

## Disorderly Conduct

Disorderly conduct while intoxicated is a minor misdemeanor and carries a maximum penalty of a $\$ 100$ fine. Disorderly conduct occurs when one recklessly causes inconvenience, annoyance, or alarm to another due to offensive conduct.

## Federal and State Penalties for Sale and Possession

The Federal Government decides if and how a drug should be controlled. Psychoactive (mind-altering) chemicals are categorized according to Schedule I-V. This schedule designates if the drug can be prescribed by a physician and under what conditions. Factors considered in this categorization include a drug's known and potential medical value, its potential for physical or psychological dependence, and risk, if any, to public health. Penalties for the illegal sale or distribution of a drug are established using the designation of Schedule I-V. If you have knowledge of a felony you must report it to a law enforcement official.
Schedule I drugs have a high potential for abuse with no medical use. Production of these drugs is controlled. Examples include heroin, methaqualone, all hallucinogens (except phen-cyclidine-PCP), marijuana and hashish. Tetrahydrocannabinol (THC), depending on its form, can also be a Schedule II drug.
Schedule II drugs have a high potential for abuse, but have some medical uses. Production of these drugs is controlled. Examples include opium, morphine, codeine, some other narcotics, barbiturates, cocaine, amphetamines, and phencyclidine (PCP).
Federal and State of Ohio penalties for selling Schedule I and II drugs vary with the quantity of the drug. Additionally, if death or serious injury is associated with the sale and/or if it is a second offense, penalties are more severe. When establishing penalties for sale, marijuana and hashish are separated from this designation according to the schedule. The penalties, however, are similar to those set for Schedule I and II drugs.
The Federal penalty for first offense sale of small amounts of Schedule I and II drugs is "not less that four years/not more than 40 years; if death or serious injury, not less than 20 years/not more than life; fine of not more than $\$ 2$ million individual/ $\$ 5$ million other than individual."
In the State of Ohio the penalty for "delivery, possession with intent to deliver, and manufacture" of less than 25 grams is "mandatory one to 20 years; up to $\$ 25,000$ or life probation." The penalty for possession of less than 25 grams is "up to four years, or fined up to $\$ 25,000$ or both." Both are a felony. Use is a misdemeanor which has a penalty of "up to two years, \$2,000 fine or both."
Schedule III, IV and V drugs include those that most citizens would categorize as "prescription drugs." Schedule III drugs have some potential for abuse, but less than I and II. The potential for abuse of Schedule IV drugs is less than Schedule III, and Schedule V is less than IV. All Schedule III-V drugs have medical uses and production is not controlled. Examples of these drugs include some narcotics, chloral hydrate (IV), barbiturates (III \& IV), amphetamines (III), and other stimulants (III \& IV).
The Federal penalty for first offense sale of a Schedule III drug is "Not more than five years; fine of not more than $\$ 250,000$ individual/\$1 million not individual." The Federal penalty for first offense sale of schedule IV drugs is "not more than three years." The fine is the same as for Schedule III drugs. The Federal penalty for first offense sale of Schedule $V$ drugs is "not more than one year; fine of not more than \$100,000 individual/ \$250,000 not individual."
Sale of some Schedule III drugs is a felony and has a State of Ohio penalty of "up to seven years; or a fine up to $\$ 5,000$; or both." State of Ohio penalty for sale of Schedule IV drugs is a felony and has a penalty of "up to four years; or a fine up to $\$ 2,000$; or both." Sale of Schedule V drugs in the State of Ohio
is also a felony and has a state penalty of "up to two years; or a fine up to $\$ 2,000$; or both."
For further information on substance abuse and early intervention and treatment, contact the Counseling Center, Room 161 Main Building, (513) 569-1544, or the Office of Human Resource Services in Room 177 Main Building, (513) 569-1565.

## Release of Information

Cincinnati State Technical and Community College, in accordance with the Family Educational Right to Privacy Act of 1974, has designated the following information regarding its students as directory (public) information:

1. Name
2. Program
3. Participation in officially recognized activities and sports
4. Weight and height of members of intercollegiate athletic teams
5. Dates of Attendance
6. Degrees and awards received (including dates of graduation and major)
7. Most recent previous educational agency or institution attended.
8. Enrollment Status (part-time or full-time), including date(s) of change(s) in status if specifically requested.
This information may be released without the written consent of the student. All other information is confidential and will be released only with written consent from the student for legitimate College purposes or as otherwise required by law.

Students have the right to withhold directory information from the public if they desire. Each student who wants all directory information withheld is required to inform the Office of the Registrar in writing. At least five days should be allowed for processing such requests.

Upon receipt of a written request to withhold directory information, the Office of the Registrar will place a hold on the student's record alerting staff in the Office of the Registrar the student has requested that no information be provided. No information will be released, regardless of any authorizations the student has completed either before or after notification has been submitted to the Office of the Registrar.

Cincinnati State receives many inquiries for "directory information" from various sources, including prospective employers, insurance companies, loan agencies, other institutions of higher education, government agencies, and news media. All students are advised to carefully consider the consequences of a decision to withhold directory information. If a student requests to have directory information withheld, the student will be required to provide written consent to the Office of the Registrar for any and all information to be released. Students requesting that all directory information be withheld will not be able to register through the touch-tone registration service.

Photographs and/or films of students for promotional and recruitment purposes are taken throughout the school year. Students who do not wish to be included in these visuals must inform the Director of Public Information prior to photographing and/or filming.

## Solomon Amendment

In compliance with the Solomon Amendment which became effective on April 1, 1997, Cincinnati State Technical and Community College must supply the following information (if captured) to representatives of any branch of Federal Armed Forces for the purpose of federal recruiting:

Student Name
Address
Telephone Number
Major
Date and Place of Birth
Level of Education
Degree(s) Received
Prior Military Experience
Most recent previous education institution enrolled
Cincinnati State will only release this information without the student's written prior consent in compliance with the Solomon Amendment and upon written request of an official representative of the Federal Armed Forces. Please review the above section for information pertaining to the release of directory information.

## Notification of Rights under the Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their educational records. They are:

1. The right to inspect and review the student's education records within 45 days of the date that Cincinnati State Technical and Community College receives a request for access. Students should submit to the registrar, dean, program chair or other appropriate official, a written request that identifies the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.
Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.
If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosure of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.
One exception which permits disclosure without consent is disclosure to schools officials with legitimate educational interests. A school official is:

- a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel);
- a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent);
- a person serving on the Board of Trustees; or a student serving on an official committee, such as disciplinary or grievance committee, or assisting another school official in performing his or her tasks.
A College official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Cincinnati State Technical and Community College to comply with the requirements of FERPA. The name and address of the office that administers FERPA are:

Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-4605


## Services for Students

As a service to students and to the academic community, Cincinnati State Technical and Community College maintains a cadre of professional and support staff to help students in making meaningful decisions regarding admission to college, registering for classes, applying for financial aid, career and educational decision making, personal and social counseling as well as the participation in a variety of student activities and sports.

## Advising

Academic Advisors are available to assist all students in reaching their academic and career goals at Cincinnati State. Academic Advisors, Program Chairs, and Faculty are assigned to guide students through:

- Setting academic goals
- Selecting courses
- Making appropriate referrals (campus support services)
- Clarifying career and personal goals
- Developing an educational plan
- Explaining academic policies and procedures
- Addressing academic challenges
- Providing information on transfer credits
- Meeting requirements for graduation


## Counseling

The Counseling office maintains a professional staff to assist students. All sessions are confidential and free of charge to all Cincinnati State students.
The following services are provided by the counseling staff:
Individual Counseling - counsel students regarding personal, social, or academic problems or concerns, and crisis intervention.
Career Counseling - help students with career decisions and concerns, through individual counseling which may include career assessment, exploration of career information resources, career decision making processes and assistance with choosing a college major.
Ombudsman - act as advocate to provide support and assistance to resolve problems or complaints encountered as a Cincinnati State student.
Referral Assistance - help students make connections with appropriate campus resources and external agencies.

Student Advocacy - help students understand their rights and responsibilities and how to work through appropriate campus procedures.
The Counseling Center is located in Room 168 Main Building. Office hours are 8:00 a.m. to 7:00 p.m. Monday and Wednesday, and 8:00 a.m. to 5:00 p.m. Tuesday, Thursday, and Friday.

## Disability Services

Disability Services will work with students to ensure they receive reasonable academic accommodations in courses of study. The major goal is to guarantee that all students with disabilities have an equal opportunity in the pursuit of their educational objectives. Services and programs are available for students according to their individual needs. Students who consistently use the resources and accommodation services earn higher grades and graduate at a higher rate than students who choose not to use them. For further information regarding these services, contact Disability Services in Room 129 Main Building, (513) 569-1613.

## International Students

The International Student Office (ISO) is responsible for developing programs to support and serve the international student community. The ISO also provides admission advising and immigration regulations assistance. The International Student Advisor assists students with adapting to the campus environment as well as seeking internal and external referral resources.

## Student Support Services

Staff members in the Student Support Services Office work with first-generation, low income, and/or disabled students who demonstrate an academic need. The goal of the program is to assist students in completing an associate degree or transfer to a baccalaureate program. Tutoring, mentoring and other support services are provided.

## Veterans

The Office of Veteran Affairs (OVA) at Cincinnati State offers assistance to veterans, eligible dependents, and selected reservists who wish to initiate, continue, or resume using their VA educational benefits.
The OVA provides benefit counseling, filing claims to the Department of Veterans Affairs (DVA), admission advising, and referrals to other support services on campus and to various community agencies. The office also monitors student degree plans and graduation progress.
The State Approving Agency for Veterans Training has approved Cincinnati State Technical and Community College for the education and training of veterans and all their dependents under all existing public laws. Inquiries concerning eligibility should be directed to the Coordinator of Veterans' Affairs in Room 168 Main Building.

## Facilities and Services for the Disabled

The Office of Disability Services is located in Room 129 Main Building. It is the mission of the office to provide otherwise qualified students with disabilities equal access to all opportunities, programs, and services offered by the College. The College has renovated areas to make its facilities accessible to disabled students. Outdoor and indoor ramps, elevators, and specially designed restroom facilities are available to assist any physically disabled person.
Disabled students who need accommodations must first register with the Office of Disability Services and present appropriate documentation. Additionally, students must present their class schedules to the Counselor for Special Needs before the start of an academic term to determine appropriate accommodations. Services include counseling (personal, academic, transfer, career), test proctoring, note-taking, scribing, interpreting, assistive technology, conflict resolution, and providing audio texts and Braille access.

## mySERVICES

mySERVICES is the pathway to Web-based student services at Cincinnati State. Through mySERVICES, students can register, add and drop classes, view and print their class schedules, make payments, check on financial aid status, view and print their grade reports, and access a variety of other services. To access mySERVICES, go to the Cincinnati State Web site at http://www.cincinnatistate.edu, and then choose myCSTATE. Log in with Username and Password. Then choose the mySERVICES tab.

## Student Activities

## Student Government

All students are encouraged to attend Student Government meetings. The Student Government is involved in student activities and acts as a liaison between students and the administration. Additional information is available through student activities.

## Athletics

Cincinnati State currently competes in the National Junior College Athletic Association (NJCAA) in five sports: women's and men's basketball, women's and men's soccer, and golf. All five teams regularly compete under the rules and regulations of the National Junior College Athletic Association Region XII (Indiana, Michigan, and Ohio) and play a very competitive junior college schedule.

## Student Organizations

Students are encouraged to join the clubs and organizations that appeal to their academic and social interests. Student organization offices are located in Room 204 ATLC.
Current student organizations on-campus are: Adult Learners on Campus, American Culinary Federation Junior Chapter at MWCI, American Society of Civil Engineers, Association of Medical Assisting Students, Black Student Union, Cincinnati State Pagan Alliance, Cincy4Christ, Cincinnati State Democrats, College Republican Club, Environmental Club, HFT Student Club, International Student Association, Interpreter Training Club, Integrative Massage Therapy, Muslim American Society, Nursing Student Association, Occupational Therapy Association, Ornamental Horticulture Club, Peer Resource Group, Phi Theta Kappa, Rainbow Alliance, Students in Free Enterprise, Student Senate, Surgical Technology Association, Unity Club.
New clubs/organizations may be chartered through the Student Senate.

## Facilities

## College ID Cards

Every enrolled student is required to have a College identification card (SurgeCard) with them at all times for security purposes. ID cards are available from the Student Activities Office in Room 204 ATLC.
The SurgeCard is required to use some campus services such as the Library, parking, Fitness Center and to attend College sports activities. Additional uses for the SurgeCard include bookstore, computer lab printing, food services, vending machines, day care door access for qualified parents, and other services. More information is available from the Student Activities Office in Room 204 ATLC.

## Use of College Facilities

Students presenting a Cincinnati State ID card may use such facilities as the gymnasium, pool, game room, weight room, library, auditorium, meeting rooms, etc. Such use is restricted to hours set aside for student use for free time recreation. These hours will not conflict with previously scheduled events, and may be subject to change because of short term scheduling of intramurals, athletics, community use, etc.
Students or student groups may lease on-campus facilities through the Office of the Director of Facilities. The use of facilities is outlined in the Facility Usage and Rental Guidelines.

## Smoking Policy

Cincinnati State Technical and Community College is a smoke-free facility. No smoking is permitted in any College owned or operated building. Students, employees, and guests should extinguish smoking materials in receptacles provided at entrances to the building. The courtyard outside the College's main entrance, the small dock area near the courtyard, visitor's entrance, and the plaza in front of the Health Professions Building are also designated smoke-free. Smoking is not permitted within 25 feet of any building entrance.
All employees and students share in the responsibility for adhering to and enforcing this policy. Employees and students are expected to assist in the enforcement of this policy through the following actions: refraining from smoking inside the building and politely reminding persons who smoke inside the building to observe the College's policy.

## Johnnie Mae Berry Library

The Johnnie Mae Berry Library, named for the College's first librarian, provides library services to the College community. The Library is open from 7:30 a.m. to 10:00 p.m. Monday through Thursday, 7:30 a.m. to 4:30 p.m. on Friday and 8:00 a.m. to 4:00 p.m. on Saturday. A trained, full-time staff member is available during these hours to assist library patrons in locating information and using the College's reference, circulation, and periodical collection. Along with standard print resources, the Library also has a wide array of resources available electronically.
The Library's homepage is available online at http://cincinnatistate.edu/library or by clicking on the word "Library" from the College's homepage. It provides access to BLINK, the Library's online catalog, and numerous links to a wide variety of sites which support the College's curriculum.
Students may check out circulating books for a three-week period or audio books for a two-week period by presenting their College SurgeCard. If items are not returned within three weeks of the receipt of an overdue notice, students will receive a bill of at least $\$ 100$ per item to cover the replacement and processing costs. Upon return of the items, the charge will be reduced to $\$ 25.00$ per item.

Cincinnati State is a member of the Ohio Library Information Network also known as OhioLINK. This network provides access to a central catalog of the colleges and universities throughout Cincinnati and Ohio. Students can request books from any other OhioLINK libraries through this system. Items are usually delivered within three days and are checked out for three weeks. Overdue fines of 50 cents per day are charged for books borrowed from other libraries. A fee of $\$ 50.00$ per item is charged for books overdue more than 28 days.
Cincinnati State students also have access to a number of libraries in the area through the SWON Libraries, Southwest Ohio and Neighboring Libraries. To use the member libraries, students must obtain a "SWON Common Patron ID" card from the Circulation Desk in the Berry Library. These IDs expire at the end of each academic term and must be renewed every term. SWON's Web site http://www.swonlibraries.org/ provides access to a member directory and lending policies.
The Library's media collection provides a variety of instructional videotapes, DVD's, slides, laser discs, etc., which are available for students to view in the Library during the Library hours.
Laptops are available to be checked out for two hours and are to be used in the Library. A SurgeCard is required for checkout. The laptops contain the software found in the computer labs and
connect to the Internet via a wireless network. A $\$ 10.00$ per hour fine is charged for laptops checked out for more than two hours.
The Library has two group study rooms, and a variety of tables, desks, and carrels for individual study. Two coin-operated copiers are available for making copies for 10 cents per page. Two typewriters are also available for student use during Library hours.

## William L. Mallory Child Development Center

The William L. Mallory Child Development Center is located on the Fourth Floor Main Building. It offers a comprehensive program of child care for infants of six months and older through pre-kindergarten. The Center is operated both day and evening. Students interested in placing children in the program should contact the director.

## National City Bank Bookstore

The bookstore is located on the lower level of the ATLC. A complete supply of new texts and a limited supply of used books are available covering all the courses offered at the College. The store also carries a complete line of classroom supplies, calculators, and course-related equipment and supplies.
Used books are purchased by the bookstore at any time during the year.
Books for which an exchange or refund is requested must be accompanied by the original receipt and presented to the College bookstore within one week after the beginning day of each term. If a student drops a course and wishes a refund within the established time frame, the student must show the bookstore personnel a copy of the drop/add form. Only books on approved technology book lists can be returned as used books and refunded accordingly.
Regular hours of the Bookstore are Monday, 8:00 a.m. to 7:00 p.m., Tuesday through Thursday, 8:00 a.m. to 6:00 p.m., and Friday 8:00 a.m. to 2:00 p.m. During registration periods, hours are extended.

## Dining and Vending Services

The cafeteria offers a wide selection of wholesome foods and refreshments.
Hours of operation are 7:30 a.m. to 6:00 p.m. Monday through Thursday and 7:30 a.m. to 2:15 p.m. on Friday.
Vending facilities are open 6:30 a.m. to 10:00 p.m. daily in the first floor cafeteria area ATLC, the third floor student lounge Main Building, and on the second and third floor of the Health Professions Building. If necessary, refunds from vending facilities can be obtained from the cafeteria cashier.

## Game Room

A Game Room is located in Room 135 ATLC. Table tennis, billiards, and board games are available free with a SurgeCard. Racquetball courts are also available for use by currently enrolled students. Racquets and balls can be checked out with a SurgeCard.

## Gymnasium

The gymnasium is open only at designated times and a SurgeCard (student ID card) is required to check out equipment. No food or drink are allowed in the gym. Gym shoes must be worn when using the gymnasium (street shoes with soft soles are not permitted). It is also recommended that gym clothes be worn when using the gymnasium.

## Pool

The pool is open to students and staff for free swimming at designated hours. A SurgeCard is required for pool usage and must be presented to the lifeguard. For the safety of all swimmers, no loud or disruptive behavior is tolerated. No street clothes are allowed in the pool area and locker rooms are available before and after swimming in the Fitness Center. Swimsuits are not allowed in other areas of the College.

## Fitness Center

A SurgeCard is required for usage of the Fitness Center and a liability waiver must be on file. All patrons must be currently enrolled students. Children, food, drinks, or loitering are not permitted in the Center. Personal fitness trainers are available. A towel is required while using the equipment. Hours of operation are posted each term.

## Lockers

The College has lockers available for use by students. Students must provide their own locks. Cincinnati State Technical and Community College assumes no responsibility for any loss, theft, or damage to lockers, locks, or contents due to fire, trespassers, etc. Each year, at the end of the Spring (April) Term, students must remove locks and contents from their lockers so that general cleaning and maintenance can be performed.

## Parking \& Traffic Regulations

The regulations set forth in this section were developed by the Campus Police Department, and approved by the College Administration in accordance with the Ohio Revised Code.
The goal is to utilize the available parking resources for the benefit of students, faculty, and visitors to insure that the parking areas are maintained and safe.

## Parking Facilities

Students:
The College offers student parking in Lot C (on the corner of Ludlow Avenue and Central Parkway) Lot G (on Central Parkway across from College Drive), the Central Parkway Garage and the Ludlow Garage.
The Cincinnati State SurgeCard provides access to parking. Students are able to purchase a term parking privilege, valid for the entire term, online through myCSTATE. The parking privilege will be placed on the student's SurgeCard. The student will need to "swipe" the SurgeCard at the card-reader - either on entry to Ludlow garage, or while exiting the Central Parkway garage. Parking privileges are sold on a per-term basis. A student will need to purchase a new privilege before the start of every new term.
Students may also pay for parking on a per-use basis. Faculty/Staff:
The College offers faculty and staff parking in Lot A (off of College Drive), Lot D (located at the end of " A " wing), and in spots along the front and rear of the main building. Additionally, faculty and staff may park in the parking garages or in Lot C. A College-issued parking permit is required to park in these areas. Motorcycle Parking:
There is motorcycle parking provided at the end of " A " wing near Lot D.
Daily Parkers (Cash Customers):
Students who wish to pay for parking on a daily basis will have several options available to them:

## Lot C:

Students may continue to pay $\$ 2.00$ at the booth located in Lot C. Lot C will also serve any overflow from garages or Lot G . The Central Parkway Garage and Lot C:
These facilities are equipped with "Auto-Cashiers." These devices are similar to vending machines, and upon exit, the student may insert \$2.00 (Lot C) or \$5.00 (Central Parkway Garage) in either change or bill form, and vend the gate. Additionally, students may use the debit-feature on their SurgeCard and pay for parking at the card-reader located at the gate. Lot G:
Students who have not purchased a term parking privilege, as outlined above, will have the option of parking in Lot G. Students without the term parking privilege will need to utilize the debit feature of their SurgeCard to pay $\$ 1.00$ for parking at the card-reader located at the gate.

## Important Notes

- Students will utilize their SurgeCard (or pay for parking) upon exit. Except for Ludlow Garage which is SurgeCard entry.
- The debit function of the SurgeCard will not work at the parking exit gates. Students wishing to pay for parking on a per-use basis must use cash.
- Students should recognize that their student SurgeCard is valid only for student parking areas and will not allow them access to any faculty/staff parking area. Additionally, student parking is not permitted in any parking spot located at the front of school, along College Drive.
Questions regarding these changes should be directed to the Campus Police Department at (513) 569-1558.


## Handicapped Parking

Parking permits are available allowing use of the Handicap parking spaces. Both a state-issued license plate/plaque and a Cincinnati State parking permit are required. Contact the Campus Police Office (Room 7 Main Building) for details.

## Visitor Parking

Visitor parking is available in the Central Parkway Garage for $\$ 5$ or Lot C for $\$ 2$. These lots can be used by students registering or visiting campus. Parking vouchers are available at Campus Police. The Parking voucher must be presented for free parking.

## Emergencies

If you see a crime being committed on campus or need assistance from Campus Police, call 861-8888.
Emergency phones are located near the parking areas and in the garages. These phones are monitored by the Campus Police Department 24 hours a day.
If you accidentally lock your keys in your car or need a jump start, come to the Campus Police Department in Room 7 Main Building and a Campus Police Officer will assist you.

## Violations

## Citation Procedure

College parking regulations are enforced by the Campus Police Department. Any violations can result in a citation being issued. Citations must be paid or appealed within 10 business days from the date of issue. After that time, the ability to appeal will be lost.
Any citation not paid or appealed within 10 business days of issue will double in cost, and the vehicle is subject to impoundment. After 30 days from issue, any unpaid citations will be
automatically added to the student's account. Repeated or serious violations could result in loss of campus parking privileges, towing of vehicle and/or impoundment at the owner's expense. Ignorance of College parking policy is not an excuse for operating or parking in violation. Citations are payable at the Cashier's Office or mail to:

Cincinnati State Technical and Community College
ATTN: Cashier's Office
3520 Central Parkway
Cincinnati, OH 45223
The purchase and display of a parking permit does not guarantee the availability of a parking space and does not justify parking against College policy.

## Parking Violations

A list of violations is available in Room 7 Main Building.

## Citation Appeal Procedure

Any ticket issued by the Campus Police Department can be appealed by filling out the appeal form available in the Campus Police Department, Room 7 Main Building. The form must be completed and submitted within ten business days after the ticket was issued. The findings of the Appeal Committee are final.

## Liability

Cincinnati State Technical and Community College assumes no responsibility for theft or damage to vehicles parked on College property.
The Campus Police Department is here to help you. If you have any questions, please stop by our office or call us at (513) 569-1558.


## Academic Divisions \& Programs of Study

Cincinnati State Technical and Community College has four academic divisions which offer credit courses: Business Technologies, Center for Innovative Technologies, Health and Public Safety, Humanities and Sciences.
The College offers a variety of educational programs that lead to associate degrees. Full-time students can complete these programs in two years or less; however, many students take longer to complete their degree requirements.
Technical associate's degree programs are intended to prepare students for employment immediately after graduation, although the credits earned in these programs also are transferable to four-year colleges and universities.
The technical associate degrees awarded are Associate of Applied Business (AAB), Associate of Applied Science (AAS), Associate of Technical Study (ATS), and Associate of Individualized Study (AIS). In this catalog, the AAB and AAS degree programs are listed according to the academic division that offers the program. The ATS programs are listed on pages 138 and 153.
University-parallel associate degree programs are intended to prepare students for immediate transfer to a four-year college or university, by providing the courses required for the first two years of a bachelor's degree. Students who complete these degrees are given preferential consideration for admission to a public university in Ohio.
The university-parallel degrees awarded are Associate of Arts (AA) and Associate of Science (AS). These associate's degree programs are listed beginning on page 74 .
In addition to associate degree programs, the College offers several certificate programs that prepare students for specific occupational situations. These certificate programs usually can be completed in less time than is required to complete an associate's degree.
The College also offers courses and services to assist students who may need additional preparation or support in order to be successful in achieving their academic goals.

## College-Wide Graduation Requirements

As part of the graduation requirements for the Associate of Applied Business (AAB), Associate of Applied Science (AAS), Associate of Individualized Study (AIS), and Associate of Technical Study (ATS) degrees, a student must complete at least 21 credit hours in general education areas, distributed as follows:

- Communication Skills - 12 credits

9 credits written communication (department code ENG)
3 credits oral communication (department code SPE)

- Social Sciences and Humanities -

9 credits, selected from these areas:
Social/Behavioral Sciences, including:
economics
geography
history
labor relations political science psychology sociology
(department code ECO)
(department code GEO)
(department code HST)
(department code LBR)
(department code POL)
(department code PSY)
(department code SOC)

Arts/Humanities, including:

| art | (department code ART) |
| :--- | :--- |
| culture studies | (department code CULT) |
| foreign languages | (department codes |
|  | FRN, GRM, SPN, SPB) |
| literature | (department code LIT) |
| music | (department code MUS) |
| philosophy | (department code PHI) |
| theatre | (department code THE) |

Students seeking an AAB, AAS, AIS, or ATS degree should consult the curriculum for their program, published elsewhere in this Catalog, to determine how the general education requirements should be met. Individual degree programs may require students to complete program-specified general education courses, or may permit students to choose some general education elective courses. Transfer credit for Social Sciences or Humanities courses completed at another institution, in disciplines not listed above, may be applied toward Cincinnati State graduation requirements, with the program chair's permission.
Students seeking the Associate of Arts or Associate of Science degree must meet the general education requirements described on page 74 .

## Program Graduation Requirements <br> (Degree Audit Curriculum)

Requirements for each degree and certificate program at Cincinnati State are published each year in this catalog. A student is expected to fulfill the requirements in effect for the catalog year when the student is admitted to the program. This set of requirements may be referred to as the student's Academic Evaluation or Degree Audit curriculum.
A student who is readmitted to the College after an absence of a year or more is expected to fulfill the requirements in effect at the time of readmission.
Students should consult with their Program Chair or academic advisor to discuss any changes made to program requirements that could affect progress toward completing the degree or certificate program.

## College Orientation Requirement

All Cincinnati State students who are enrolled in a degree program are required to complete a college orientation course, either FYE 9002, College Survival Skills, or FYE 9003, The Community College Experience.
Students in the Cincinnati State Honors Experience fulfill the orientation course requirement by completing HNR 1695, Introduction to Honors.
Some certificate programs also require students to complete FYE 9002 or FYE 9003. Each certificate program that requires completion of an orientation course is indicated in the Academic Divisions section of this Catalog.
From Early Fall 2001 through Summer 2006, the required orientation course was titled CAR 9002, College Success Seminar. Students who enrolled in a degree or certificate program that required CAR 9002 and did not complete it are required to complete either FYE 9002 or FYE 9003.
Students must complete the orientation course requirement within the first 18 credit hours taken at Cincinnati State.

A degree-seeking or certificate-seeking student who has already successfully completed 18 or more credits of collegelevel courses at another college or university and has received Cincinnati State transfer credit for these courses is not required to complete an orientation course.
The orientation courses FYE 9002 and FYE 9003 introduce students to the college experience and to Cincinnati State's expectations and resources for new students. The orientation course earns college credit, but it does not fulfill general studies or core course requirements for degree or certificate programs.

## The Honors Experience

The Cincinnati State Honors Experience supports the institutional goal of serving all aspects of the community by offering enhanced learning opportunities to academically talented, highly motivated students. The Honors Experience curriculum complements the existing degree programs. Students can take Honors sections of many of the required courses. The Honors Experience strives to establish an intellectual community among students and faculty; to provide challenging coursework, academic enrichment activities, academic honors advising, and opportunities for student involvement. Honors Experience graduates receive recognition at Commencement and on their diploma and transcripts.
The Honors Experience is open to full and part-time admitted degree-seeking students in all divisions of the College who meet the entry criteria listed below. Students are first admitted to a degree program and then to Honors. All Honors students must take HRN 1695, Orientation to Honors, as a co/pre-requisite to taking other Honors classes.
Students accepted into the Honors Experience who enter Cincinnati State directly from an area high school are eligible to apply for an Honors Experience scholarship.
For more information, contact Marcha L. Hunley, Honors Chair, (513) 569-1732, or visit the Honors Web page at http://www.cincinnatistate.edu/CurrentStudent/Academics/ HonorsExperience.htm
The entry criteria for the Honors Experience are:
A. New student - meet at least one of the following:

- High school GPA of 3.25 or higher
- High school rank - top $20 \%$
- ACT 26 (after April 1996)
- SAT scores 1140 (after April 1996)
- And COMPASS scores of 85 for Reading, 80 for Writing, and Math at program level.
B. Current student - college GPA of 3.25 after 18 academic credits
C. Transfer student - college GPA of 3.25 after 18 academic credits
And for all students - 2 recommendations from persons familiar with the student's academic potential and performance in a teaching/learning environment.


## Developmental Education

Developmental courses are available for students whose placement test scores indicate a need for additional preparation in the areas of reading, writing, and math skills prior to entering their program of study. Typically, students take these courses prior to admission to a degree program. However, in some
cases, developmental courses can be taken in conjunction with program-level coursework. Students who need developmental courses are assigned a pre-technical or pre-major advisor. The advisor assists students in selecting appropriate coursework and monitors the progress of each student toward meeting program admission requirements.
Courses in study skills are also available. These courses provide students with important college success skills such as taking tests, managing time, using the library, and taking notes. In addition, a computer learning laboratory and tutoring services are provided free of charge when extra help is needed.
Courses with a DE or ESL department code are counted in the total number of attempted hours on student transcripts, but they are not used to calculate a student's grade point average (GPA). Even though these grades do not affect the GPA, they can affect financial aid eligibility. Grades earned in courses with a CAR department code do count toward the student's GPA. DE courses can not be counted toward graduation.
The following courses are offered every term:

|  |  | Credits |
| :--- | :--- | :---: |
| DE 0003 | Basic Writing 1 | 4 |
| DE 0004 | Basic Writing 2 | 4 |
| DE 0005 | Basic Writing 3 | 4 |
| DE 0010 | College Reading 1 | 4 |
| DE 0011 | College Reading 2 | 4 |
| DE 0020 | Basic Mathematics 1 | 4 |
| DE 0024 | Basic Algebra 1 | 4 |
| DE 0025 | Basic Algebra 2 | 4 |
| CAR 9014 | College Study Skills | 4 |
| ESL 0060 | Reading and Writing 1 | 4 |
| ESL 0061 | Reading and Writing 2 | 4 |
| ESL 0063 | Conversation | 2 |
| ESL 0064 | Advanced Writing | 4 |

Students may be advised to take other developmental courses not listed above that are offered on varying schedules to meet specific program preparation needs.

## ESL Courses

International students who successfully complete courses in English as a Second Language (ESL) are considered to have completed developmental writing and reading courses. Additional developmental writing and reading courses are not required.

## Learning Lab

The Learning Lab is located in Rooms 254 and 258 of Main. This computer laboratory provides students the opportunity to use supplemental instructional materials to sharpen their basic skills while reinforcing their ability to learn independently.

## Tutoring

Individual or group tutoring is available to Cincinnati State students in a variety of subject areas and is free of charge. Instruction is provided by qualified faculty or by student tutors who are recommended by faculty. All tutors receive training in methods, policies, and practices aimed at promoting independent learning. Students may request a tutor through the Tutoring Center in Room 261 Main. Drop-in tutoring and tutoring by appointment are available for students who need assistance.

## Distance Learning

To provide a variety of academic options for students, Cincinnati State offers a number of courses in a distance learning format.
Distance learning courses provide the same quality and content as traditional classroom-based instruction. Course lectures and instructional materials are made available to students through Web-based instruction (sometimes called "online" or "virtual college" classes); broadcast via public television; CD, video, or audio media; and/or print-based methods. Instructors of distance learning courses may require on-campus class meetings at announced times (such as course orientation, midterm exam, and final exam). All distance learning course instructors are available to answer student questions throughout the term.
Students who are interested in the scheduling flexibility provided by distance learning courses should contact the office of the dean of the division which offers the course(s). More information is available on the distance learning Web page, http://www.cincinnatistate.edu/CurrentStudent/Academics/Aca demicDivisions/dlhome.htm

## Extension Sites

Cincinnati State provides college credit and non-credit courses through community learning centers located at Lower Price Hill School, the Health Professions Academy at the Health Alliance Business Center, the Cincinnati State West campus in Harrison, and the Workforce Development Center in Evendale.
Whether students earn college credit or seek personal enrichment, courses offered at the extension sites bring Cincinnati State programs to local neighborhoods. Courses offered at the extension sites are listed in the Term Schedule and are identified with a site abbreviation code under the "Building" (BLDG) column.

## Weekend Classes

Cincinnati State schedules a range of classes on weekends. For selected associate's degree and certificate programs, the College provides opportunities for students to complete their programs with all classes scheduled in a combination of weekend and evening classes, or a combination of weekend and distance learning classes. Students seeking more information should contact the office of the dean of the division which offers the program of interest.

## Courses Available for Credit by Cincinnati State Exam ("Test Out")

Course Number and Name

Faculty Test Monitor

## Business Technologies Division

Graphic Imaging Technology/

GC 1403 Computer Graphics for Print 1
GC 1415 Graphic Arts Processes
GC 1419 Survey of Printing Inks
GC 1421 Computer Graphics for Print 2
GC 1422 Graphic Design for Desktop Publishing
K. Freed
G. Walton
G. Walton
K. Freed
K. Freed

| GC 1425 | Film \& Plates for Packaging | G. Walton |
| :--- | :--- | :--- |
| GC 1429 | Screen Printing | K. Freed |
| GC 1430 | Label \& Packaging Presswork 1 | G. Walton |
| GC 1431 | Label \& Packaging Presswork 2 | G. Walton |
| GC 1439 | Introduction to Offset Presswork | G. Walton |
| GC 1440 | Offset Presswork | G. Walton |
| GC 1449 | Printing Estimating 1 | G. Walton |
| GC 1450 | Printing Estimating 2 | G. Walton |
| GC 1480 | Digital Photography \& Imaging 1 | G. Walton |
| GC 1481 | Computer Graphics for Print 3 | K. Freed |
| GC 1483 | Computer Graphics for Print 4 | K. Freed |

Office Technologies
OT 1850 Computerized Business Applications
C. Crossley

OT 3002 Document Formatting 1 J. Haft
OT 3007 Keyboarding J. Haft
Tests for Microsoft computer applications can be available through Microsoft Office Specialist Certification
J. Haft

Accounting Technologies
ACC 2911 Principles of Accounting 1
L. Schaffeld

## Center For Innovative Technologies

Aviation Maintenance Technology
AVT 81XX All Aviation Maintenance Tech courses
J. Schmid

Biomedical Equipment and Information Systems Technology, Computer Network Engineering Technology,
Electronics Engineering Technology
BMT 7739 Introduction to
Biomedical Instrumentation S. Yelton
BMT 7749 Biomedical Instrumentation $1 \quad$ S. Yelton
BMT 7759 Biomedical Instrumentation 2 S. Yelton
EET 7701 Electronic Fundamentals L. Pohlgeers
EET 7707 Electrical Applications L. Pohlgeers
EET 7710 DC Circuit Analysis L. Morris
EET 7711 DC Circuits Lab L. Morris
EET 7716 Computer Calculations $\begin{aligned} & \text { for Electronics }\end{aligned}$
EET 7720 AC Circuit Analysis L. Morris
EET 7721 AC Circuits Lab L. Morris
EET 7728 Digital Combinational Logic B. McLain
EET 7730 Electronics $1 \quad$ L. Pohlgeers
EET 7738 Digital Sequential Logic B. McLain
EET 7740 Electronics 2 L. Pohlgeers
EET 7748 Microprocessor Systems 1 B. McLain
EET 7750 Electronics 3 L. Pohlgeers
EET 7768 Microprocessor Systems 2 B. McLain
EET 7778 Programmable Logic Devices B. McLain
Mechanical Engineering Technology
EET 7706 Electrical Fundamentals L. Feist
MET 7108 Engineering Drawing 1 with AutoCAD M. DeVore
MET 7310 Manufacturing Processes with CNC Programming $1 \quad$ L. Feist

Information Technologies
IT 5201 Information Technology Concepts J. Vetter
Health and Public Safety Division
BIO 4014 Anatomy \& Physiology 1 R. Eveslage
BIO 4015 Anatomy \& Physiology 2
R. Eveslage

| BIO 4016 | Anatomy \& Physiology 3 | R. Eveslage |
| :--- | :--- | :--- |
| CLT 4301 | Basic Laboratory Techniques | K. Fields |
| CLT 4302 | Basic Hematology \& Hemostasis | K. Fields |
| CLT 4303 | Basic Urinalysis and Body Fluids | K. Fields |
| CLT 4321 | Introduction to |  |
|  | Clinical Lab Science | K. Fields |
| HIM 4400 | Introduction to |  |
|  | Health Information Management | C. Kneip |
| HIM 4410 | Basic CPT Coding | S. Mallett |
| HIM 4420 | Basic ICD-9-CM Coding | S. Mallett |
| HIM 4421 Intermediate ICD-9-CM Coding | S. Mallett |  |
| HIM 4451 Intermediate CPT Coding | S. Mallett |  |
| MCH 4002 Informatics in Healthcare | D. Robinson |  |
| MCH 4805 Patient Care Skills | D. Lierl |  |
| MCH 4806 Medical Terminology 1 | D. Robinson |  |
| MCH 4807 Medical Terminology 2 | D. Robinson |  |
| MCH 4816 Health \& Wellness Promotion | D. Robinson |  |
| MCH 4840 Orientation to the Health Record | D. Robinson |  |
| MCH 4841 Unit Coordinator Procedures 1 | D. Robinson |  |
| MCH 4842 Unit Coordinator Procedures 2 | D. Robinson |  |

## Humanities Division

English Composition

| ENG 1001 English Composition 1 | G. Woolf |
| :--- | :--- |
| ENG 1002 English Composition 2 | G. Woolf |
| ENG 1009 Business English | G. Woolf |
| Psychology |  |
| PSY 1505 Introduction to Psychology 1 | P. Davis |
| PSY 1506 Introduction to Psychology 2 | P. Davis |
| PSY 1508 Psychology: Child Development | P. Davis |
| PSY 1509 Psychology: Adult Development | P. Davis |
| PSY 1510 Psychology: |  |
| Adolescent Development |  |
| PConomics Davis |  |
| ECO 1512 Microeconomics |  |
| ECO 1513 Macroeconomics | P. Davis |

Sociology and Labor Relations
SOC 1521 Introduction to Sociology 1 C. Bossard
SOC 1523 Introduction to Sociology 2
SOC 1525 Changing Roles for
Men \& Women
SOC 1526 Sociology:
Marriage and the Family C. Bossard
LBR 1535 Introduction to Labor/
Management Relations
LBR 1539 Introduction to Employment and Workplace Law 1

Spanish
SPN 1080 Elementary Spanish 1
SPN 1081 Elementary Spanish 2
SPN 1082 Elementary Spanish 3
SPN 1083 Intermediate Spanish 1
SPN 1084 Intermediate Spanish 2
SPN 1085 Intermediate Spanish 3
C. Bossard
C. Bossard

Sciences Division
MAT 1105 Mathematics for the Health Professions
MAT 1121 Business Math 1
MAT 1122 Business Math 2
MAT 1123 Business Math 3
C. Bossard
C. Bossard
R. Moreno
R. Moreno
R. Moreno
R. Moreno
R. Moreno
R. Moreno

MAT 1124 Business Algebra

| MAT 1128 | Business Calculus |
| :--- | :--- |
| MAT 1151 College Algebra 1 | J. Hoeweler |
| MAT 1152 Pre-Calculus | J. Hoeweler |
| MAT 1154 Calculus 1 | J. Hoeweler |
| MAT 1155 Calculus 2 | J. Hoeweler |
| MAT 1170 Introduction to Tech. Math 1 | J. Hoeweler |
| MAT 1191 Algebra and Trigonometry 1 Hoeweler |  |
| MAT 1192 Algebra and Trigonometry 2 | J. Hoeweler |
| MAT 1193 Analytic Geometry and Calculus 1J. Hoeweler |  |

## Transfer Module

The State of Ohio has developed a statewide policy to facilitate movement of students and transfer credits from one Ohio public college or university to another. (See policy statement on page 40 .)
The Cincinnati State Transfer Module consists of 55 to 59 quarter credit hours that transfer to any public Ohio two- or four-year college. Categories contained in the Transfer Module are:

English Composition
Mathematics
Arts/Humanities
Social/Behavioral Sciences
Biological/Physical Sciences
Students earning the Transfer Module select courses from these categories. The Transfer Module requirements are included in the degree requirements for students earning the Associate of Arts (AA) or Associate of Science (AS); however, students earning the AA or AS degree also are required to complete additional courses selected from the Transfer Module categories. The AA/AS requirements are described on pages 74-78.
Students completing the Transfer Module should consult with their academic advisor to assure that courses selected are appropriate for the institution and the degree program that the student plans to pursue after completing studies at Cincinnati State
The following courses constitute the Transfer Module.

## ENGLISH COMPOSITION

Select one 3-course sequence.

## 9 Credits

ENG 1002 English Composition 1
3
ENG 1002 English Composition 2
ENG 1003 English Composition 3
ENG 1001 English Composition 1
3
ENG 1002 English Composition 2
ENG 1010 Technical Writing 1
or
ENG 1011
Business Communications
3
ENG 1001 English Composition 13
ENG 1010 Technical Writing 1
ENG 1015 Technical Writing 2
3

## MATHEMATICS <br> 4 Credits Minimum

Note: Students must complete MAT 1124, MAT 1151, or
MAT 1191 before enrolling in any of the classes listed.
*MAT 1111 Statistics 1
3
*MAT 1112 Statistics 2
3

* Must take both classes.

MAT 1113 Statistics 3
MAT $1128 \quad$ Business Calculus 5
MAT $1152 \quad$ Pre-Calculus 5
MAT 1154 Calculus $1 \quad 5$

MAT 1155
MAT 1156
MAT 1173

MAT 1179
MAT 1192
MAT 1193
MAT 1194
MAT 1195

## SOCIAL/BEHAVIORAL SCIENCES

Select 5 courses from at least two areas.
Economics
ECO 1512
ECO 1513
ECO 1514
Geography
GEO 1551
GEO 1552
GEO 1553
History
HST 1561
HST 1562
HST 1563
HST 1568
HST 1569
HST 1570
HST 1575
HST 1576
HST 1577
HST 1578
Labor Relations
LBR 1535
Political Science
POL 1531
POL 1532
POL 1533
Psychology
PSY 1505
PSY 1506
PSY 1507
PSY 1508
PSY 1509
PSY 1510
PSY 1511
Sociology
SOC 1521
SOC 1523
SOC 1525
SOC 1526

| Microeconomics | 3 |
| :--- | ---: |
| Macroeconomics | 3 |
| International Aspects of Economics | 3 |
|  |  |
| World Regional Geography 1 | 3 |
| Cultural Geography |  |
| World Regional Geography 2 | 3 |
|  |  |
| History of World Civilization 1 | 3 |
| History of World Civilization 2 | 3 |
| History of World Civilization 3 | 3 |
| American History 1 | 3 |
| American History 2 | 3 |
| American History 3 | 3 |
| History of Africa | 3 |
| African-American History 1 | 3 |
| African-American History 2 | 3 |
| African-American History 3 | 3 |

Intro. to Labor/Mgmt. Relations 3

Calculus $2 \quad 5$
Calculus $3 \quad 5$
Algebra and Trigonometry 2
with Statistics
4
Introduction to Applied Statistics 4 Algebra and Trigonometry 24 Analytic Geometry and Calculus 14 Analytic Geometry and Calculus 24 Analytic Geometry and Calculus 34

5 54
Introduction to American Govt. 13
Introduction to American Govt. 23
Intro. to Comparative Governments 3
Introduction to Psychology 13
Introduction to Psychology 23
Abnormal Psychology 3
Child Psychology 3
Adult Psychology 3
Adolescent Psychology 3
Social Psychology 3
Introduction to Sociology 13
Introduction to Sociology 2 3
Changing Roles for Men \& Women 3
Sociology: Marriage \& the Family 3

## ARTS/HUMANITIES

15 Credits
Select 5 courses from at least two areas.
Art

| ART 1660 | Introduction to Art | 3 |
| :--- | :--- | :--- |
| ART 1662 | Art of the Ancient World | 3 |
| ART 1663 | Art of Medieval \& Ren. World | 3 |
| ART 1664 | Art of Modern World | 3 |
| Culture Studies  <br> CULT 1645 Technology and Culture | 3 |  |3

3333


| CULT 1646 | Mass Media and Culture | 3 |  |
| :---: | :---: | :---: | :---: |
| CULT 1647 | Work and Society | 3 |  |
| CULT 1680 | Introduction to Film Studies 1 | 3 | 0 |
| CULT 1681 | Introduction to Film Studies 2 | 3 | - |
| Literature and Composition |  |  |  |
| LIT 1040 | Survey of American Literature to 1860 | 3 | $\bigcirc$ |
| LIT 1041 | Survey of American Literature 1860 to 1914 | 3 |  |
| LIT 1042 | Survey of American Literature after 1914 | 3 | ¢ |
| LIT 1045 | Survey of British Literature before 1500 | 3 | $\stackrel{\text { er }}{ }$ |
| LIT 1046 | Survey of Renaissance and 18th Century British Literature | 3 | \% |
| LIT 1047 | Survey of 19th and 20th Century British Literature | 3 | 5 |
| LIT 1048 | Introduction to Shakespeare | 3 |  |
| LIT 1049 | Introduction to World Literature | 3 | - |
| LIT 1050 | The Short Story | 3 | ) |
| LIT 1051 | Drama | 3 |  |
| LIT 1052 | Poetry | 3 | $\sigma$ |
| LIT 1053 | The Novel | 3 | 0 |
| LIT 1054 | Children's Literature | 3 |  |
| LIT 1055 | Science Fiction | 3 | ? |
| LIT 1056 | Women Writers | 3 |  |
| LIT 1057 | African-American Writers | 3 | 0 |
| LIT 1058 | Introduction to Literature | 3 |  |
| Music |  |  |  |
| MUS 1665 | Introduction to Music: <br> Middle Ages to Early 19th Century | 3 |  |
| MUS 1666 | Introduction to Music: <br> The 19th and 20th Centuries | 3 |  |
| MUS 1667 | Introduction to Music: Musical Styles | 3 |  |
| Philosophy |  |  |  |
| PHI 1620 | Critical Thinking | 3 |  |
| PHI 1621 | Introduction to Philosophy | 3 |  |
| PHI 1625 | Ethics | 3 |  |
| PHI 1630 | Comparative World Religions: Asia | 3 |  |
| PHI 1631 | Comparative World Religions: Middle East | 3 |  |
| Theatre |  |  |  |
| THE 1670 | Theatre Appreciation | 3 |  |
| THE 1671 | History of Theatre | 3 |  |3

Introduction to Music:
Middle Ages to Early 19th Century

Introduction to Music: Musical Styles

3

BIOLOGICAL/PHYSICAL SCIENCES
12 Credits
Biology
BIO 4071
BIO 4072
BIO 4073
BIO 4081
BIO 4082
BIO 4083
BIO 4009
BIO 4014
BIO 4015
BIO 4016
Chemistry
CHE 2231
CHE 2232

| Concepts of Biology 1 | 4 |
| :--- | ---: |
| Concepts of Biology 2 | 4 |
| Concepts of Biology 3 | 4 |
| Biology 1 | 5 |
| Biology 2 | 5 |
| Biology 3 | 5 |
| General Microbiology | 4 |
| Anatomy and Physiology 1 | 4 |
| Anatomy and Physiology 2 | 4 |
| Anatomy and Physiology 3 | 4 |
|  |  |
| Fundamentals of General Chemistry 4 |  |
| Fundamentals of Organic Chemistry 4 |  |

CHE 2233
CHE 2251
Fundamentals of Biochemistry
CHE 2252
Freshman Chemistry 1
CHE $2253 \quad$ Freshman Chemistry 3
CHE 2281 Organic Chemistry $1 \quad 3$
CHE 2282 Organic Chemistry 2 3
CHE 2283
CHE 2284
CHE 2285
CHE 2286
CMT 6611
CMT 6621
CMT 6631
Organic Chemistry 3
Organic Chemistry 1 Lab 2
Organic Chemistry 2 Lab 2
Organic Chemistry 3 Lab 2
Chemistry 1/Quant. Analysis 6
Chemistry 2/Quant. Analysis 6
Chemistry 3/Quant. Analysis 6

Environmental Science
EVS 7622 Environmental Conservation and Clean up
EVS 7623 Environmental Geology 4
EVS $7524 \quad$ Ecology and Ecosystems 4
Physical Science
PSC 2264 Astronomy 1 - Solar System 4
PSC 2265 Astronomy 2 - The Universe 4
PSC 2267 Energy 4
PSC 2269 Hydrology and Meteorology 4
PSC 2277 Geology
Physics
PHY 2291
PHY 2292
Physics 1

- 4

PHY 2293 Physics 3 4
PHY 2294
PHY 2295
Modern Physics
Physics 1 (Calculus Based) 4

PHY $2296 \quad$ Physics 2 (Calculus Based) 5
PHY 2297
Physics 3 (Calculus Based)

## Associate of Arts and Associate of Science Degrees

Program Chair - Joyce Rimlinger Co-op Coordinator - Linda Romero-Smith
Advisor - Julie McLaughlin
Cincinnati State offers the Associate of Arts and Associate of Science degrees, which are often called "university parallel degrees" or "transfer degrees," because they provide the first two years of a bachelor's degree program. The primary purpose of the Associate of Arts and Associate of Science degrees is to prepare students for transfer to a four-year college or university. Students who earn these degrees and have an overall grade point average of 2.0 or better are given preferential consideration for admission to Ohio public universities.
To earn an Associate of Arts or Associate of Science degree at Cincinnati State students must complete at least 102 credit hours of courses from these areas:

English Composition<br>Mathematics<br>Biological/Physical Sciences<br>Social/Behavioral Sciences<br>Arts/Humanities

Computer Literacy
Cooperative Education/Career Exploration
The Associate of Arts degree is for students who desire to pursue a bachelor's degree by completing the first two years at Cincinnati State in program areas such as:
Communications
Criminal Justice
Education
English
Fine Arts
History
International Affairs
Philosophy
Political Science
Pre-Law
Pre-Mortuary Science
Psychology
Social Work
Sociology
Spanish
Theatre
Urban Planning
Urban Studies

The Associate of Science degree is for students who desire to pursue a bachelor's degree by completing the first two years at Cincinnati State in program areas such as:

## Biology

Chemistry
Mathematics
Meteorology
Physics
Pre-Dentistry
Pre-Medicine
Pre-Optometry
Pre-Pharmacy
Pre-Veterinary Medicine
Zoology
Students who seek the Associate of Arts or Associate of Science degree need to be familiar with the requirements for the bachelor's degree at the institution where they intend to complete their studies. Students work with a Cincinnati State faculty advisor to develop a planned curriculum of required and elective courses. This plan should allow a full-time student to transfer to the desired four-year institution at junior status after two years or less. Students who need additional preparation or attend part-time may take longer than two years to complete their degree requirements.

## Associate of Arts Degree Requirements

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

| English Composition: | 9 Credits - select one sequence |
| :--- | :--- |
| Mathematics: | 4 Credits - select one or two <br> courses |
| Oral Communications: | 3 Credits - select one course |
| Social/ | 15 Credits - select Transfer <br> Behavioral Sciences: <br> Module courses from at least <br> two areas |


| Arts/Humanities: | 15 Credits - select Transfer Module courses from at least two areas |
| :---: | :---: |
| Distributive Credits: | 12 Credits - select courses from Social/Behavioral Sciences or Arts/Humanities |
| Biological /Physical Sciences: | 12 Credits |
| Computer Literacy: | 6 Credits |
| Cooperative Education: | 7 Credits - complete HUM 9801 and consult the co-op coordinator to select additional courses from HUM 9802, HUM 9803, HUM 9804, HUM 9805, HUM 9806, and HUM 9807 |
| Electives: | 19 Credits - in consultation with their advisor, students select courses that meet general and programmatic requirements of the institution where they plan to complete a bachelor's degree |
| Total | 102 credit hours minimum |
| Associate of Science Degree Requirements |  |
| 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State. |  |
| English Composition: | 9 Credits - select one sequence |
| Mathematics: | 8 Credits - select two or three courses |
| Oral Communications: | 3 Credits - select one course |
| Social/ <br> Behavioral Sciences: | 15 Credits - select Transfer Module courses from at least two areas |
| Arts/Humanities: | 15 Credits - select Transfer Module courses from at least two areas |
| Biological/ <br> Physical Sciences: | 24 Credits |
| Computer Literacy: | 6 Credits |
| Cooperative Education: | 7 Credits - complete HUM 9801 and consult the co-op coordinator to select additional courses from HUM 9802, HUM 9803, HUM 9804, HUM 9805, HUM 9806, and HUM 9807 |
| Electives: | 15 Credits - in consultation with their advisor, students select courses that meet general and programmatic requirements of the institution where they plan to complete a bachelor's degree |
| Total | 102 credit hours minimum |

## Courses that meet Associate of Arts and Associate of Science Requirements

Students in the Associate of Arts and Associate of Science programs should complete the transfer module as part of their degree.

ENGLISH COMPOSITION
9 Credits
Select one 3-course sequence.
ENG $1001 \quad$ English Composition 1
ENG 1002 English Composition 2
ENG 1003 English Composition 3
ENG 1001
ENG 1002 English Composition 2
ENG 1010
or
ENG 1011

ENG 1001
ENG 1010
ENG 1015 and consult the co-op coordinafrom HUM 9802, HUM 9803, HUM 9804, HUM 9805,

19 Credits - in consultation with their advisor, students select courses that meet general and programmatic requirements of the institution where they plan to complete a bachelor's degree

Total - 102 credit hours minimum

MATHEMATICS 4 Credits - AA 8 Credits - AS
Note: Students must complete MAT 1110, MAT 1124, MAT 1151, or MAT 1191 before enrolling in any of the classes listed.
*MAT 1111 Statistics 1 3
*MAT 1112 Statistics 2 . 3

* Must take both classes

MAT 1113 Statistics 3
MAT $1128 \quad$ Business Calculus
MAT 1152 Pre-Calculus
MAT 1154 Calculus 1 5
MAT 1155 Calculus 2 5
Calculus 3 5
MAT 1173 Algebra and Trigonometry 2 with Statistics
MAT 1179 Introduction to Applied Statistics 4
MAT 1192 Algebra and Trigonometry $2 \quad 4$
MAT 1193 Analytic Geometry and Calculus 1
ORAL COMMUNICATIONS
SPE $1020 \quad$ Public Speaking
3 Credits

Advanced Public Speaking 3
SPE 1023 Interpersonal Communication 3
SPE $1024 \quad$ Group Dynamics 3
SPE 1027 Team Building \& Group Facilitation 3
SOCIAL/BEHAVIORAL SCIENCES 15 Credits
Courses listed below are Transfer Module courses.
Select five courses from at least two areas.

## Economics

ECO 1512 Microeconomics 3
ECO 1513 Macroeconomics 3
ECO 1514
Geography
GEO 1551
GEO 1552
GEO 1553
History
HST 1561 History of World Civilization 13
HST 1562 History of World Civilization 2
HST 1563 History of World Civilization 3

|  | HST 1568 | American History 1 | 3 | LIT 1054 | Children's Literature | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | HST 1569 | American History 2 | 3 | LIT 1055 | Science Fiction | 3 |
|  | HST 1570 | American History 3 | 3 | LIT 1056 | Women Writers | 3 |
|  | HST 1575 | History of Africa | 3 | LIT 1057 | African-American Writers | 3 |
|  | HST 1576 | African-American History 1 | 3 | LIT 1058 | Introduction to Literature | 3 |
|  | HST 1577 | African-American History 2 | 3 | Music |  |  |
| $\omega$ | HST 1578 | African-American History 3 | 3 | MUS 1665 | Introduction to Music: |  |
| (1) | Labor Relations |  |  |  | Middle Ages to Early 19th Century | 3 |
|  | LBR 1535 | Intro. to Labor/Mgmt Relations | 3 | MUS 1666 | Introduction to Music: |  |
| $0$ | Political Science |  |  |  | The 19th and 20th Centuries | 3 |
|  | POL 1531 | Intro. to American Govt. 1 | 3 | MUS 1667 | Introduction to Music: |  |
|  | POL 1532 | Intro. to American Govt. 2 | 3 |  | Musical Styles | 3 |
| $0$ | POL 1533 | Intro. to Comparative Govts. | 3 | Philosophy |  |  |
|  | Psychology |  |  | PHI 1620 | Critical Thinking | 3 |
| (1) | PSY 1505 | Introduction to Psychology 1 | 3 | PHI 1621 | Introduction to Philosophy | 3 |
|  | PSY 1506 | Introduction to Psychology 2 | 3 | PHI 1625 | Ethics | 3 |
| $\bigcirc$ | PSY 1507 | Abnormal Psychology | 3 | PHI 1630 | Comparative World Religions: Asia | 3 |
|  | PSY 1508 | Child Psychology | 3 |  | Comparative World Religions: |  |
|  | PSY 1509 | Adult Psychology | 3 |  |  | 3 |
|  | PSY 1510 | Adolescent Psychology | 3 | Theatre |  |  |
| T | PSY 1511 | Social Psychology | 3 | THE 1670 | Theatre Appreciation | 3 |
|  | Sociology |  |  | THE 1671 | History of Theatre | 3 |
| $\omega$ | SOC 1521 | Introduction to Sociology 1 | 3 | DISTRIBUTIVE CREDITS <br> 12 Credits - A <br> Students should select distributive courses from the list of Social/Behavioral Sciences or Arts/Humanities courses above or from the list below. These courses should be selected with the help of an advisor to meet requirements of the bachelor's degree in which the student plans to enroll. |  |  |
| 0 | SOC 1523 | Introduction to Sociology 2 | 3 |  |  |  |
|  | SOC 1525 | Changing Roles for Men \& Women | 3 |  |  |  |
| O | SOC 1526 | Sociology: Marriage \& the Family | 3 |  |  |  |
| $\sigma$ | ARTS/HUMANITI | S 15 Credits |  |  |  |  |
|  | Courses listed below are Transfer Module courses.Select five courses from at least two areas. |  |  |  |  |  |
| + |  |  |  | Art |  |  |
| $<$ | Art |  |  | ART 1685 | Introduction to Photography | 3 |
|  | ART 1660 | Introduction to Art | 3 | ART 1690 | Drawing 1 | 3 |
| ) | ART 1662 | Art of the Ancient World | 3 | ART 1691 | Drawing 2 | 3 |
| (1) | ART 1663 | Art of Medieval \& Ren. World | 3 | ART 1692 | Design 1 | 3 |
|  | ART 1664 | Art of Modern World | 3 | ART 1693 | Design 2 | 3 |
|  | ART 1664 | Art of Modern World | 3 | ART 1694 | Sculpture 1 | 3 |
|  | Culture Studies |  |  | ART 1695 | Sculpture 2 | 3 |
| 8 | CULT 1645 | Technology and Culture | 3 | Criminal Justice |  |  |
| 0 | CULT 1646 | Mass Media and Culture | 3 |  |  |  |
| \% | CULT 1647 | Work and Society | 3 | CRJ 1250 | Introduction to Criminal Justice |  |
|  | CULT 1680 | Introduction to Film Studies 1 | 3 | CRJ 1252 | Introduction to Corrections | 3 |
|  | CULT 1681 | Introduction to Film Studies 2 | 3 | CRJ 1253 | Criminal Courts \& Procedures 1 | 3 |
|  | Literature and Composition |  |  | CRJ 1254 | Criminal Courts \& Procedures 2 | 3 |
|  | LIT 1040 | Survey of American Literature |  | CRJ 1255 | Criminal Law | 3 |
|  |  | to 1860 | 3 | CRJ 1256 | Criminal Investigation Skills | 3 |
|  | LIT 1041 | Survey of American Literature |  | CRJ 1257 | Juvenile Delinquency | 3 |
|  |  | 1860 to 1914 | 3 | CRJ 1258 | Workshops in Criminal Justice | 3 |
|  | LIT 1042 | Survey of American Literature |  | CRJ 1259 | Special Studies in Criminal Justice | 3 |
|  |  | after 1914 | 3 | Culture Studies |  |  |
|  | LIT 1045 | Survey of British Literature | 3 | $\text { CULT } 1602$ | Issues in Human Diversity | 3 |
|  | LIT 1046 | Survey of Renaissance and |  | Foreign Languages |  |  |
|  |  |  | 3 |  |  |  |
|  |  | 18th Century British Literature |  | FRN 1060 | Elementary French 1 | 4 |
|  | LIT 1047 | Survey of 19th and 20th Century |  | FRN 1061 | Elementary French 2 | 4 |
|  |  | British Literature | 3 | FRN 1062 | Elementary French 3 | 4 |
|  | LIT 1048 | Introduction to Shakespeare | 3 | FRN 1063 | Intermediate French 1 | 4 |
|  | LIT 1049 | Introduction to World Literature | 3 | FRN 1064 | Intermediate French 2 | 4 |
|  | LIT 1050 | The Short Story | 3 | FRN 1065 | Intermediate French 3 | 4 |
|  | LIT 1051 | Drama | 3 | SPN 1076 | Spanish Conversation \& |  |
|  | LIT 1052 | Poetry | 3 |  | Composition | 2 |
|  | LIT 1053 | The Novel | 3 | SPN 1080 | Elementary Spanish 1 | 4 |

SPN 1081
SPN 1082
SPN 1083
SPN 1084
SPN 1085
ITP 1086*
ITP 1087*
ITP 1088*
ITP 1091*
ITP 1092*
ITP 1093*
ITP 1094*
ITP 1095*
ITP 1096*

Elementary Spanish $2 \quad 4$
Elementary Spanish $3 \quad 4$ Intermediate Spanish 14 Intermediate Spanish 24 Intermediate Spanish 34 Beginning ASL $1 \quad 4$ Beginning ASL 24 Beginning ASL 3 Intermediate ASL 1 4
Intermediate ASL $2 \quad 4$
Intermediate ASL 3 4
Advanced ASL 1
Advanced ASL 2
Advanced ASL 3
*Some schools do not accept American Sign Language as a foreign language. Check with your advisor before starting the American Sign Language sequence.

## Humanities

HUM 1698
HUM 1699
Special Topics in Humanities 3

Journalism
JOU 1031
JOU 1032
JOU 1033
News Writing 1
News Writing 2
Journalism Practicum
Labor Relations
LBR 1539
LBR 1540
Intro. to Employment \& Workplace Law 1 Intro. to Employment \& Workplace Law 2

## Literature and Composition

ENG 1036 Creative Writing: Poetry 3
ENG 1037 Creative Writing: Short Fiction 3
ENG 1038 Creative Writing: Non Fiction 3
ENG 1039 Creative Writing:
Writing for Children 3
LIT 1059 Topics in Literature 3
Psychology
PSY 1502
Human Relations

## Social Sciences

SSC 1598
Topics in Social Sciences
Sociology
SOC 1270
SOC 1271
Introduction to Social Work
SOC 1272
Social Welfare and Policies
SOC 1273
Social Problems
SOC 1524
Drugs in Society

## BIOLOGICAL/PHYSICAL SCIENCES

12 Credits - AA 24 Credits - AS

## Biology

BIO 4071
Concepts of Biology 1
BIO 4072
BIO 4073
Concepts of Biology 2
BIO 4081
BIO 4082
BIO 4083
BIO 4009
BIO 4014
BIO 4015
BIO 4016

## Chemistry

CHE 2231
CHE 2232
CHE 2233
CHE 2251
CHE 2252
CHE 2253
CHE 2281
CHE 2282
CHE 2283
CHE 2284
CHE 2285
CHE 2286
CMT 6611
CMT 6621
CMT 6631

Fundamentals of General Chemistry 4
Fundamentals of Organic Chemistry 4
Fundamentals of Biochemistry 4
Freshman Chemistry 15
Freshman Chemistry $2 \quad 5$
Freshman Chemistry 3
Organic Chemistry 13
Organic Chemistry 23
Organic Chemistry 3
Organic Chemistry 1 Lab 2
Organic Chemistry 2 Lab 2
Organic Chemistry 3 Lab 2
Chemistry 1 \& Quant. Analysis 6
Chemistry 2 \& Quant. Analysis 6
Chemistry 3 \& Quant. Analysis

## Environmental Science

EVS 7622 Environmental Conservation and Clean up
EVS 7623 Environmental Geology
EVS 7624 Ecology and Ecosystems

## Physical Science

PSC 2264
Astronomy 1 - Solar System
PSC 2265 Astronomy 2 - The Universe
PSC 2267

## Energy

PSC $2269 \quad$ Hydrology and Meteorology
PSC 2277 Geology

## Physics

PHY 2291
PHY 2292
PHY 2293
Physics 1

PHY 2294
PHY 2295
PHY 2296
PHY 2297

## COMPUTER LITERACY 6 Credits

| OT 1850 | Computerized Business Applications | 4 |
| :--- | :--- | :--- |
| OT 1863 | Electronic Spreadsheets (Excel) | 3 |
| OT 3058 | MS Word for Windows | 3 |
| OT 3062 | Database/Spreadsheet Applications | 3 |
| OT 3064 | Introduction to PowerPoint | 3 |
| OT 3095 | Intro: Computers, Windows, Internet | 3 |
| OT 3096 | Internet/Office Communications | 3 |
| GC 1422 | Desktop Publishing (PC PageMaker) | 3 |
| GC 1423 | Adobe InDesign | 3 |
| IT 5410 | Cross Platform Computing | 3 |
| IT 5456 | Desktop Publishing: QuarkXPress | 3 |
| IT 5206 | Programming Logic and BASIC | 6 |
| IT 5231 | Operating Sys: DOS/Windows 1 | 3 |

## COOPERATIVE EDUCATION

7 Credits
The Associate of Arts and Associate of Science programs share the College's commitment to cooperative education as an integral part of the curriculum. Cooperative education allows students to apply the concepts learned in the classroom with practical, hands-on experience in real work environments.
In order to complete the AA or AS degree at Cincinnati State, students must earn no fewer than seven credits in work exploration/experience, selected from the courses described below.
All students seeking the AA or AS degree must successfully complete HUM 9801 - Career Exploration Seminar. Students should enroll in this course in their fourth or fifth term.

All students seeking the AA or AS degree must meet with the co-op coordinator one term prior to participating in work experience (co-op/Internship) classes. Students will complete four credits selected from courses HUM 9802, HUM 9803, HUM 9804, HUM 9805, HUM 9806, HUM 9807. Other classes may not be substituted for the work experience courses without prior approval of the program chair and the cooperative education coordinator. However, students with prior work experience that is related to their post-baccalaureate career goals may be eligible to receive credit through the standard College procedures for granting Advanced Standing Credit.

| HUM 9801 | Career Exploration Seminar | 3 |
| :--- | :--- | :--- |
| HUM 9802 | Internship - Humanities \& Sciences | 2 |
| HUM 9803 | Cooperative Employment - <br> Humanities \& Sciences | 2 |
| HUM 9804 | Parallel Cooperative Employment - <br> Humanities \& Sciences | 1 |
| HUM 9805 | Career Education Project - <br> Humanities \& Sciences |  |
| HUM 9806 | Career Education Project - | 2 |
| HUM 9807 | Humanities \& Sciences | 4 |
| Internship - Humanities \& Sciences |  |  |$\quad 4$

## ELECTIVES <br> 19 Credits - AA 15 Credits - AS

Students should select electives based on knowledge of general and programmatic requirements of the institution where they plan to earn a bachelor's degree. Any course in the list of requirements above (except courses in the Computer Literacy and Cooperative Education categories) may be used as an elective. Students may use other courses as electives with the prior permission of the advisor.

## Associate of Individualized Study

Cincinnati State offers the Associate of Individualized Study (AIS) degree to meet unique career education needs for students whose careers objectives cannot be achieved through one of the existing associate degree programs offered by the College.
A student who wishes to be considered for admission to an AIS program must follow these steps:

1. Meet with the Program Chair for the Associate of Arts/ Associate of Science degree. This meeting will be used to make a preliminary determination of whether the student's request for an AIS program is likely to be approved. If approval seems likely, an academic advisor for the AIS program will be assigned.
2. Consult with the assigned academic advisor, who will assist the student in planning the curriculum for the AIS program. This curriculum must include no fewer than 90 total credits, and must include all College-wide graduation requirements.
3. Complete all College admissions requirements, as described in the "Admissions, Fees, \& Financial Aid" section of this catalog.
4. Write and deliver to the assigned academic advisor a justification of the proposed degree program, including a statement of career goals and an explanation of why another associate degree program would not be appropriate.

The student's academic advisor will present the proposed AIS curriculum to the College's Academic Policies and Curriculum Committee (APCC) for approval. The APCC will approve or deny the AIS program proposal. The APCC may seek additional information and/or suggest modifications to the proposed AIS curriculum prior to taking action.
If the proposed AIS is approved, the student will be admitted to the AIS program.
If the proposed AIS is denied, the student may wish to apply to another associate degree program.

## Associate of Technical Study

## Associate of Technical Study - Type A

The Associate of Technical Study (ATS) - Type A degree program allows a student to meet unique career objectives by receiving college credit for qualified non-college training programs, and combining this training with courses from two or more existing Cincinnati State associate degree programs.
A student who wishes to be considered for admission to an ATS - Type A program must follow the steps outlined above for the AIS degree. The proposed ATS - Type A degree program must be approved by the College's Academic Policies and Curriculum Committee.

## Associate of Technical Study - Type B

The Associate of Technical Study (ATS) - Type B degree program allows the College to develop associate degree programs in partnership with professional organizations or businesses that provide specific training programs for their members or employees. The training program is examined by a College review committee to determine if it qualifies for inclusion in an ATS - Type $B$ program. If qualified, the training program is awarded a set number of college credits. Additional components of the proposed degree program are also determined by the review committee.
The proposed ATS - Type B degree program must be approved by the College's Academic Policies and Curriculum Committee.
When implemented, an ATS - Type B program accommodates students who have completed educational programs that are outside traditional college coursework, and allows these students to supplement their professional training with the additional enriching components of a college associate degree program.

Existing ATS - Type B programs are identified within the academic division sections of this catalog.
A student who wishes to be considered for admission to an ATS - Type B program must follow the steps outlined above for the AIS degree. The proposed ATS - Type B degree program must be approved by the College's Academic Policies and Curriculum Committee.

# Business Technologies Division 

Main Phone Number: (513) 569-1620
Cincinnati State meets the need for specialized business training with Associate of Applied Business degree programs, an Associate of Arts degree in Pre-Business Administration, an Associate of Applied Science degree, and several certificate programs. Organized job experience through cooperative education work assignments with leading business firms is a key phase of the learning program. Business courses, combined with jobrelated activities during 10 -week co-op terms, provide students with both business skills and business experience. Upon completion of the two-year degree program in business, students earn an associate's degree.
Credits earned in the degree programs are transferable. Cincinnati State has established articulation agreements with the College of Mount St. Joseph, Thomas More College, Xavier University, Northern Kentucky University, the University of Cincinnati, Miami University, Rochester Institute of Technology, the Union Institute, Wilmington College, and Franklin University.

## Entrance Competencies

In order to ensure a high degree of success in academic studies in business technologies, entering students must meet established academic levels in mathematics, communication skills, and reading comprehension. To aid in determining these levels, entering students are required to take COMPASS, the college admissions/placement test. If testing and previous academic background indicate that a student has not reached the necessary preparatory level, a divisional advisor will assist in preparing a program of classes to help the student reach those levels. Preparatory classes are available on a year-round basis.

## Cooperative Education Working for Success Experience

Cooperative education allows students to apply the concepts learned in the classroom to the business world and to gain practical experience that enhances employment after graduation. Therefore, in the Business Technologies Division all students must earn eight to 10 credit hours in cooperative education (except in the Dietetic Technician Program).
The Business Technologies Division's Working for Success Experience, a series of practice-oriented courses, ensures student success in preparing for and achieving career goals. The foundation for the program is set with course FYE 9002 College Survival Skills, the first course in the series. This course prepares students for their college experiences and provides a map for a successful transition to college life. College Success Strategies sets the stage for classroom, lab, and cooperative education experiences at Cincinnati State.
The Working for Success Experience continues with BT 9200 - Professional Practices. This course prepares students for the cooperative education experience. Through Professional Practices, students learn fundamental skills required to gain employment such as goal setting, career research, resume writing, interviewing, and negotiating. Additionally, students gain job success competencies ranging from business etiquette to business ethics. Upon completion of this course, students are
ready for the practical experience provided by cooperative education.
The primary element in the practice-oriented education provided by the Working for Success Experience is cooperative education. Cincinnati State's cooperative education program reinforces the concept that learning occurs best with the integration of classroom studies and related work experience. Through mandatory co-op experiences, students complete several terms of meaningful employment that is structured, managed, and evaluated in a systematic way to help students realize their career goals. By completing learning modules, students acquire additional skill sets necessary to sustain employment. In exceptional situations students, in consultation with their program coordinators, may fulfill the co-op requirement through registration in Co-op Seminar course(s) BUS 9230, BUS 9231, and BUS 9232. Additional guidelines for meeting the co-op requirement are outlined below.
Once students complete co-op requirements, they enroll in the third course of the Working for Success Experience, BUS 9233 - Business Competencies. This capstone course ties the practice-oriented sequence together with the experiences of the preceding courses. Students gain practical experience as they complete educational units that build the competencies needed to advance in their chosen field of work. The Business Competencies course includes mandatory community service. Part of the enrichment education provides is the realization that with education and career come a responsibility to the community. The capstone course helps students gain that perspective and form the foundation for good citizenship.

## The Cooperative Education Requirement

1. Students can meet the Business Technologies Division cooperative education requirement in these three ways:

- Complete the traditional cooperative education work experiences.
- Fulfill the requirements by applying for advanced standing.
- Complete the Co-op Seminar classes satisfactorily; this requires the coordinator's prior approval.

2. To be eligible to participate in the cooperative education program, students must meet the following requirements:

- Matriculate as a student.
- Maintain a GPA of 2.0 or higher, and complete any required program technical courses.
(See co-op coordinator for list.)
- Attend a co-op orientation session, complete an application to co-op packet, and return it to the program co-op coordinator before consideration for placement.
- Agree to follow the curriculum and meet all program requirements as specified.
- Agree not to seek full-time employment with a co-op employer until graduation.
- Understand that co-op students are not eligible for unemployment benefits for co-op positions, and as such, agree not to apply for them.
- Gain prior coordinator approval if it is necessary to drop out of co-op employment and complete the remainder of the co-op requirements by taking Co-op Seminar courses. If students leave co-op employment, they are eligible to re-enter only with approval of the co-op coordinator.

3. Students may complete the required co-op experience on either an alternating or parallel track depending on the availability of positions. Students must meet with their co-op coordinator as soon as possible after admission to their academic program to complete their co-op plan.
4. The Business Technologies Division assists students in completing their cooperative education work experiences. Although the division's co-op coordinators are generally successful in finding interview opportunities for co-op students, there is no employment guarantee. If employment is unavailable, the co-op coordinator works with students on alternatives to fulfill the cooperative education requirement.

## Transfer Module

The Ohio Board of Regents developed the transfer module to facilitate transfer of credits from one Ohio public college or university to another. The transfer module contains 54 to 60 quarter hours of course credits in the areas of English, mathematics, arts and humanities, social and behavioral sciences, natural and physical sciences, and interdisciplinary studies. A transfer module completed at one college or university automatically meets the requirements for the transfer module at another college or university once the student is admitted. For additional information, see the "State of Ohio Policy for Institutional Transfer" and the "Transfer Module" sections of this catalog.
Associate's degree programs in the Business Technologies Division contain in their curriculums most of the required courses for the Cincinnati State Transfer Module. Students who wish to complete the transfer module should schedule the additional courses at their convenience. Students who transfer to an Ohio public university for baccalaureate degrees will find that the Cincinnati State Associate of Applied Business degree combined with a transfer module showing grades of " C " or higher receives preferential consideration at the receiving institution.

## Pre-Business Administration (PBA) Transfer Degree

Program Chair - Linda Schaffeld
Co-op Coordinator - Kelly Harper
The primary objective of the Pre-Business Administration degree program is to provide for transfer to a four-year institution rather than preparation for a job. The program provides students with basic coursework that enables them to transfer to baccalaureate programs in business administration, accounting, finance, management, or marketing. Students complete general education requirements and selected business core courses to prepare for work in their major at the senior institution. The PreBusiness Administration Transfer curriculum leads to the Associate of Arts degree, and meets the transfer module requirements for transfer to Ohio public colleges and universities.
Students who plan to transfer to a baccalaureate program in business must be aware of significant differences in course requirements and the application of transfer credits at the various institutions in the region. They should work closely with their academic advisors from Cincinnati State and with the transfer coordinator of the receiving institution to tailor their academic program for transfer to another institution.
The following is an example of general requirements for a PreBusiness Administration degree:

[^0]| Social/Behavioral Sciences | 15 |
| :--- | ---: |
| Communication | 3 |
| Arts/Humanities | 15 |
| Biological/Physical Sciences | 12 |
| Business | 37 |
| Cooperative Education | $\underline{6}$ |
| Total Credit Hours: | $\mathbf{1 0 7}$ |

For specific requirements, contact the program chair.

## Pre-Dietetic Technology (PDTUC) Transfer Degree

Program Chair - Laura Horn, RD, LD
Co-op Coordinator - Kendra Wilburn
The primary objective of the Pre-Dietetic Technology degree program is to provide transfer to a four-year institution rather than preparation for a job. The program provides students with basic coursework that enables them to transfer to baccalaureate programs in dietetics with emphasis in business, exercise, or dietetic coordinated programs. The Pre-Dietetic Technology curriculum leads to the Associate of Science degree and meets the requirements for transfer to Ohio public colleges and universities.
Students who plan to transfer to a baccalaureate program in dietetics must be aware of significant differences in course requirements and the application of transfer credits at various institutions in the region. They should work closely with their academic advisors from Cincinnati State and the advisor at the college where they intend to complete their baccalaureate degree. Students who complete a baccalaureate degree program will be required to complete an internship before they can take the credentialing exam given by the Credentialing Board of the American Dietetic Association.
The following is an example of general requirements for a PreDietetic Technology degree:

|  | Credit Hours |
| :--- | ---: |
| English Composition | 9 |
| Mathematics (Algebra \& Statistics) | 6 |
| Social / Behavioral Science | 15 |
| Communications | 3 |
| Arts / Humanities | 9 |
| Biological / Physical Sciences | 31 |
| Business | 11 |
| Dietetic / Culinary | 12 |
| Cooperative Education | 4 |
| Total Credit Hours | 110 |

For specific requirements, contact the program chair.

## Accounting Technology (ACCT)

Program Chair - Michele Geers
Co-op Coordinator - Kelly Harper
Advisor - Yvonne Baker
The Accounting Technology program provides students with an understanding of accounting skills and knowledge of business fundamentals. Students enhance their skills through cooperative education with small and large CPA firms; manufacturing, merchandising, and service companies; financial institutions; not-for-profit organizations; and government agencies. Students learn the fundamentals of financial, managerial, and tax accounting and gain a background in communication skills and management philosophy. Students earn an Associate of Applied Business degree upon completing the program. Graduates are prepared to
perform accounting duties related to the preparation of financial statements; analyze data from a corporation's annual report; prepare income tax returns for individuals, corporations, and partnerships; and assist in management decisions regarding product costing, cost-volume-profit analysis, and cash flows. Graduates may work as staff accountants with various types of organizations.

## ACCOUNTING TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit

|  |  | Hours Per Week <br> Class |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Lab | Credit |  |  |  |
| Hours |  |  |  |  |

## SECOND TERM

| MGT | $29 X X$ | Management Elective | 3 | 0 |
| :--- | :--- | :---: | :---: | :---: |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 |
|  |  | 2 |  |  |
|  |  | 40 | 5 |  |

THIRD TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 11 XX | Math Elective | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2927 | Financial Accounting 2 | 4 | 2 | 5 |
|  |  | 15 | 4 | 17 |  |

ECO $\begin{array}{lllll}1512 & \text { Microeconomics } & 3 & 0 & 3\end{array}$

ACC 9220 Cooperative Education Accounting | 1 | 40 | 2 |
| :--- | :--- | :--- |
|  | 40 | 5 |

## FIFTH TERM

| MAT | 11 XX | Math Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| OT | 1864 | Advanced Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2921 | Managerial Accounting | 5 | 0 | 5 |
| ACC | 2922 | Computerized Accounting Applications | 2 | 2 | 3 |
|  |  | 15 | 4 | 17 |  |

SIXTH TERM
MKT 2901 Principles of Marketing $1 \quad 3 \begin{array}{lll} & 0 & 3\end{array}$

ACC 9220 Cooperative Education Accounting | 1 | 40 | 2 |
| :--- | :--- | :--- |
| 4 | 40 | 5 |

## SEVENTH TERM

| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ACC | 2914 | Cost Accounting 1 | 3 | 0 | 3 |
| ACC | 2917 | Federal Taxation 1 | 3 | 0 | 3 |
| ACC | 2919 | Intermediate Accounting 1 | 3 | 0 | 3 |
| FIN | 2960 | Business Finance | 3 | 0 | 3 |
| ACC | XXXX | Accounting Elective | 3 | 0 | 3 |
|  |  | 18 | 0 | 18 |  |

## EIGHTH TERM

MGT 2989 Customer Service Systems 2 3

ACC 9220 Cooperative Education Accounting | 1 | 40 | 2 |
| ---: | ---: | ---: |
|  |  | 43 |

## NINTH TERM

SPE 1020 Public Speaking $\quad 3 \quad 0 \quad 3$
ECO 1513 Macroeconomics 3003
ACC 1851 Auditing $\quad 3 \begin{array}{lll}3 & 0 & 3\end{array}$
ACC 2918 Federal Taxation 2 $\begin{array}{llll}3 & 0 & 3\end{array}$
$\begin{array}{llllll}\text { ACC } & 2920 & \text { Intermediate Accounting } 2 & 3 & 0 & 3\end{array}$

ACC XXXX Accounting Elective $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 18 | 0 | 18 |

TENTH TERM
ACC 9220 Cooperative Education Accounting 10402
BUS 9233 Business Competencies

| 1 | 40 | 2 |
| :---: | :---: | :---: |
| 2 | 0 | 2 |
| 3 | 40 | $\frac{4}{110}$ |

Math Elective: Minimum of 9 hours from the following:
Business Math: MAT 1121, MAT 1122, MAT 1123
Algebra: MAT 1151 (preferred) or MAT 1124
Statistics: MAT 1111 and MAT 1112, or MAT 1179 and MAT 1113
Calculus: MAT 1152 and MAT 1128
English Elective: ENG 1003, ENG 1010, ENG 1011
Management Elective: MGT 2967 (preferred) or
MGT 2965 and MGT 2966
Accounting Elective: ACC 1856, ACC 2915, ACC 2941, ACC 2942,
ACC 2943, ACC 2945, ACC 2946, ACC 2947, ACC 2949, ACC 2950

## Bookkeeping Technology (BKT)

Program Chair - Michele Geers
Co-op Coordinator - Kelly Harper
Advisor - Yvonne Baker
The Bookkeeping Technology program provides students with fundamental skills in accounting and business and hands-on use of accounting and business software. Students enhance their skills with cooperative education opportunities with small to medium-size businesses and/or not-for-profit organizations. Students are prepared to perform basic bookkeeping duties related to balancing and adjusting the books; preparing a company's federal, state, and local income tax returns; preparing payroll and related tax reports; setting up depreciation schedules; maintaining inventory records; and understanding accounting and business processes. Students earn an Associate of Applied Business degree upon completing the program. This program is designed for students looking for immediate employment upon graduation. Graduates may work as bookkeepers or accounting/audit clerks in small to medium-sized organizations.

## BOOKKEEPING TECHNOLOGY

All degree-seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab | Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 2 | 4 |
| OT | 1850 | Introduction to Computer Applications | 4 | 2 | 5 |
| ACC | 2926 | Financial Accounting 1 | 1 | 0 | 1 |
|  | 9200 | Professional Practices | 14 | 4 | 16 |

SECOND TERM
MGT 2967 Introduction to Management 3

ACC 9220 Cooperative Education Accounting | 1 | 40 | 2 |
| ---: | :--- | ---: |
|  | 40 | 40 |

THIRD TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :---: |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2927 | Financial Accounting 2 | 4 | 2 | 5 |
|  |  | 15 | 4 | 17 |  |

FOURTH TERM

| ECO | $\mathbf{1 5 1 2}$ | Microeconomics | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 | 2 |
|  |  | 4 | 40 | 5 |  |

FIFTH TERM
MAT 1123 Business Mathematics 3 $\quad 3 \quad 0 \quad 3$
LAW 1823 Business Law $1 \quad 3 \begin{array}{lll}3 & 0 & 3\end{array}$

| ACC | 2921 | Managerial Accounting | 5 | 0 | 5 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ACC | 2922 | Computerized Accounting Applications | 2 | 2 | 3 |
| ACC | 2945 | Payroll Procedures | 1 | 0 | 1 |
| OT | 3068 | Database Management: Access 1 | 2 | 3 | 3 |
|  |  |  | 16 | 5 | 18 |

## SIXTH TERM

| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 | 2 |
|  |  | 4 | 40 | 5 |  |

## SEVENTH TERM

| ENG | 1011 | Business Communications | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| OT | 1864 | Advanced Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2918 | Federal Taxation 2 | 3 | 0 | 3 |
| ACC | 2947 | Computerized Bookkeeping 1 | 1 | 2 | 2 |
| FIN | 2960 | Business Finance | 3 | 0 | 3 |
| ACC | 2974 | Topics for Bookkeeping | 2 | 0 | 2 |
|  |  | 14 | 4 | 16 |  |
| EIGHTH TERM |  |  |  |  |  |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
| ACC | 9220 | Cooperative Education Accounting | 1 | 40 | 2 |

## NINTH TERM

| ACC | 1856 | Accounting Information Systems | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :--- |
| ACC | 2948 | Computerized Bookkeeping 2 | 1 | 2 | 2 |
| ACC | 2949 | State and Local Taxation | 2 | 0 | 2 |
| ACC | 2950 | Financial Statement Analysis | 2 | 0 | 2 |
| ACC | XXXX | Accounting Elective | 3 | 0 | 3 |
| SPE | XXXX | Speech Elective | 3 | 0 | 3 |
|  |  |  | 14 | 2 | 15 |

## TENTH TERM

ACC 9220 Cooperative Education Accounting $1 \begin{array}{lll}40 & 2\end{array}$
BUS 9233 Business Competencies 2
XXX XXXX Social Science Elective

| 3 | 0 | 3 |
| :---: | :---: | ---: |
| 6 | 40 | $\frac{7}{109}$ |

Speech Elective: SPE 1020, SPE 1024
Social Science Elective: Select one course from the following areas:
ECO, HST, PSY, SOC, POL
Accounting Elective: ACC 2914, ACC 2917, ACC 2919, ACC 2942

## Accounting Certificate (ACCTC)

Advisor - Michele Geers
The Accounting Certificate program is for individuals who have already earned a degree in a different discipline and want to sit for the CPA exam, or who may need accounting knowledge for job promotion. The curriculum has no cooperative education requirement. This program is best suited for those currently employed in the accounting field.

## ACCOUNTING CERTIFICATE

|  |  |  | Hours Per <br> Class | Lab |
| :--- | :--- | :--- | :---: | :---: | :---: | | Credit |
| :---: | :---: | :---: | :---: |
| Hours |

Accounting Electives: Minimum of 6 credit hours:
ACC 1856, ACC 2915, ACC 2941, ACC 2942, ACC 2943, ACC 2945,
ACC 2946, ACC 2947, ACC 2949, ACC 2950

## Bookkeeping Certificate (BKC)

Advisor - Michele Geers

The Bookkeeping Certificate program is for individuals currently working in or returning to an office environment who want to learn additional skill sets to enhance job opportunities. The certificate focuses on bookkeeping, accounting, and computer skills and does not include cooperative education. Students may combine this certificate with an associate's degree in other areas, including Office Management and Medical Administrative Assistant.

## BOOKKEEPING CERTIFICATE

|  |  |  | Hours Per Week <br> Class |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| ACC | 1856 | Accounting Information Systems | 3 | 0 | 3 |
| ACC | 2918 | Federal Taxation 2 | 3 | 0 | 3 |
| ACC | 2921 | Managerial Accounting | 5 | 0 | 5 |
| ACC | 2922 | Computerized Accounting Applications | 2 | 2 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| ACC | 2927 | Financial Accounting 2 | 4 | 2 | 5 |
| ACC | 2945 | Payroll Procedures | 1 | 0 | 1 |
| ACC | 2947 | Computerized Bookkeeping 1 | 1 | 2 | 2 |
| ACC | 2948 | Computerized Bookkeeping 2 | 1 | 2 | 2 |
| ACC | 2949 | State and Local Taxation | 2 | 0 | 2 |
| ACC | 2950 | Financial Statement Analysis | 2 | 0 | 2 |
| ACC | 2974 | Topics for Bookkeeping | 2 | 0 | 2 |
| OT | 3068 | Database Management: Access 1 | 2 | 3 | 3 |
| ACC | XXXX | Accounting Elective | 3 | 0 | 3 |
|  |  |  | 35 | 13 | $\frac{41}{41}$ |

Accounting Elective: ACC 2914, ACC 2917, ACC 2919, ACC 2942

## Automotive Service Management Technology (ASM)

Program Chair - Keith Mains
Co-op Coordinator - Joe Roberts
Advisor - John Hatton
The Automotive Service Management Technology program prepares students for entry-level jobs in the technical and/ or management areas of the automotive service field. Course materials encompass all Automotive Service Excellence (ASE) certification areas. Hands-on diagnosis and repair of "live" vehicles enhances students' diagnostic skills and builds a solid foundation for a successful and rewarding career. The program includes six terms of classroom/lab study and four terms of cooperative education. Graduates earn an Associate of Applied Business degree and may seek employment as Automotive Technicians, Technician Helpers, Assistant Managers, or Specialized Technicians.

## AUTOMOTIVE SERVICE MANAGEMENT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab | Hours |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |  |
| ENG | 1001 | English Composition 1 | 3 | 2 | 4 |
| MAT | 1161 | Applied Algebra | 2 | 3 | 3 |
| ASM | 2520 | Introduction to Automotive Technology | 2 | 3 | 3 |
| ASM | 2525 | Engine Fundamentals 1 | 2 | 3 | 3 |
| ASM | 2540 | Automotive Electrical Diagnosis 1 | 2 | 1 | 0 |
| BT | 9200 | Professional Practices | 13 | 11 | 17 |


| SECOND TERM |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1162 | Applied Geometry \& Trigonometry | 3 | 2 | 4 |
| OT | 185X | Computer Elective | 3 | 2 | 4 |
| ASM | 2530 | Engine Performance 1 | 2 | 3 | 3 |
| ASM | 2535 | Automatic Transmission 1 | 2 | 3 | 3 |
|  |  |  | 13 | 10 | 17 |
| THIRD TERM |  |  |  |  |  |
| ASM | 9221 | Cooperative EducationAutomotive Service Management | 1 | 40 | 2 |
| FOURTH TERM |  |  |  |  |  |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ASM | 2526 | Engine Fundamentals 2 | 2 | 3 | 3 |
| ASM | 2541 | Automotive Electrical Diagnosis 2 | 2 | 3 | 3 |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |
|  |  |  | 13 | 6 | 15 |
| FIFTH TERM |  |  |  |  |  |
| ASM | 9221 | Cooperative Education- <br> Automotive Service Management | 1 | 40 | 2 |
| SIXTH TERM |  |  |  |  |  |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| LBR | 1535 | Intro. to Labor/Management Relations | 3 | 0 | 3 |
| ASM | 2531 | Engine Performance 2 | 2 | 3 | 3 |
| ASM | 2542 | Automotive Electrical Diagnosis 3 | 2 | 3 | 3 |
| ASM | 2550 | Manual Transmission and Drive Line 1 | 2 | 3 | 3 |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
|  |  |  | 14 | 12 | 18 |
| SEVENTH TERM |  |  |  |  |  |
| ASM | 9221 | Cooperative Education- <br> Automotive Service Management | 1 | 40 | 2 |
| EIGHTH TERM |  |  |  |  |  |
| ASM | 2545 | Advanced Electrical/Hydraulics/Safety | 2 | 3 | 3 |
| ASM | 2555 | Braking Systems | 2 | 3 | 3 |
| ASM | 2560 | Suspension and Steering | 2 | 3 | 3 |
| ASM | 25XX | Technical Elective | 2 | 3 | 3 |
| ACC | 2924 | Accounting for Non-Financial Managers | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
|  |  |  | 14 | 12 | 18 |
| NINTH TERM |  |  |  |  |  |
| ASM | 9221 | Cooperative EducationAutomotive Service Management | 1 | 40 | 2 |
| TENTH TERM |  |  |  |  |  |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ASM | 2532 | Engine Performance 3 | 2 | 3 | 3 |
| ASM | 2570 | Air Conditioning \& Heating | 2 | 3 | 3 |
| ASM | 25XX | Technical Elective | 2 | 3 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
|  |  |  | 14 | 9 | 17 |
|  |  |  |  |  | $\overline{110}$ |

Technical Electives: ASM 2565, ASM 2527, ASM 2533, ASM 2536,
ASM 2551, ASM 2561
Computer Elective: OT 1850
Social Science Elective: any PSY, SOC, ECO, GEO, HST, LBR
Speech Elective: SPE 1020, SPE 1024

## Automotive Service Technician Certificate (ASTC)

Advisor - John Hatton
The Automotive Service Technician Certificate prepares students for entry-level jobs in the technical areas of the automotive service field. Hands-on diagnosis and repair of "live" vehicles enhances students' diagnostic skills and builds a solid foundation for a career in automotive service.

## AUTOMOTIVE SERVICE TECHNICIAN CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  |  | Hours Per <br> Class <br> Leek | Credit <br> Hours |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ASM | 2520 | Introduction to Automotive Technology | 2 | 3 | 3 |
| ASM | 2525 | Engine Fundamentals 1 | 2 | 3 | 3 |
| ASM | 2526 | Engine Fundamentals 2 | 2 | 3 | 3 |
| ASM | 2530 | Engine Performance 1 | 2 | 3 | 3 |
| ASM | 2531 | Engine Performance 2 | 2 | 3 | 3 |
| ASM | 2532 | Engine Performance 3 | 2 | 3 | 3 |
| ASM | 2534 | Basic Driveline Service and Repair | 2 | 3 | 3 |
| ASM | 2540 | Automotive Electrical Diagnosis 1 | 2 | 3 | 3 |
| ASM | 2541 | Automotive Electrical Diagnosis 2 | 2 | 3 | 3 |
| ASM | 2555 | Braking Systems | 2 | 3 | 3 |
| ASM | 2560 | Suspension and Steering | 2 | 3 | 3 |
| ASM | 2570 | Air Conditioning \& Heating | 2 | 3 | 3 |
| ASM | 2599 | Special Studies - |  |  |  |
|  |  | Automotive Service Management | 0 | 0 | 0 |
|  |  | 24 | 36 | $\frac{36}{36}$ |  |

## Management/Marketing Technologies <br> Program Co-Chairs - Carolyn Waits, Jim Wood

## Business Management Technology <br> (BM)

Co-op Coordinator - Jim Macke
Advisors - Paul Callahan, Michael Chikeleze, Meg Clark, Alicia Revely, Carolyn Waits, Sharon White, Jim Wood
The Business Management program is a two-year Associate of Applied Business degree program that includes five paid cooperative education terms where students gain valuable insight and real world experience in assessing and solving business management challenges. The Business Management curriculum includes contemporary practices in management, marketing, human resources, accounting, and organizational development. Students learn the effective utilization of time, money, materials, and people to improve business.
Graduates of the Business Management program are prepared to manage business at the entry level in the four functional areas of management (planning, leading, organizing, and controlling), to enter management training, or to assume a team leadership role.

## BUSINESS MANAGEMENT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per <br> Class |  |  | Week <br> Lab |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Credit |  |  |  |  |  |
| Hours |  |  |  |  |  |

## SECOND TERM

BUS 9222 Cooperative Education Business Management/

| Marketing Management |  |  | 1 | 40 |
| :--- | :--- | :--- | :--- | :--- |
| THIRD TERM |  |  |  |  |
| ENG 1002 English Composition 2 | 3 | 0 | 3 |  |


| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :--- |
| MAT | 11 XX | Mathematics Elective | 3 | 0 | 3 |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
|  |  |  | 19 | 2 | 20 |

FOURTH TERM

| BUS | 9222 | Cooperative Education Business Management/ |  |  |
| :--- | :--- | :--- | :---: | :---: |
|  |  |  |  |  |
| Marketing Management | 1 | 40 | 2 |  |
| FIFTH TERM |  |  |  |  |
| MAT | 11 XX | Mathematics Elective | 3 | 0 |
| 3 |  |  |  |  |
| LAW | 1823 | Business Law 1 | 3 | 0 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 |
| 3 |  |  |  |  |
| ACC | 2927 | Financial Accounting 2 | 4 | 2 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 |
| MXX | Business Elective | 3 | 0 | 3 |
|  |  | 18 | 4 | 20 |

## SIXTH TERM

BUS 9222 Cooperative Education Business Management/

| Marketing Management |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| SEVENTH TERM | 1 | 40 | 2 |  |
| ENG | 10XX | English Elective |  |  |
| MKT | 1810 | Principles of Sales | 3 | 0 |
| MGT | 1832 | Human Resource Management | 3 | 0 |
| 3 | 3 |  |  |  |
| ACC | 2921 | Managerial Accounting | 3 | 0 |
| FIN | 2960 | Business Finance | 5 | 0 |
| 5 |  |  |  |  |
| MGT | 2996 | Project Management | 3 | 0 |
| 3 |  |  |  |  |
| XXX | XXXX | Social Science Elective | 3 | 0 |
|  |  | 3 | 0 | 3 |
|  |  | 23 | 0 | 23 |

EIGHTH TERM

| BUS | 9222 | Cooperative Education Business Management/ <br>  <br>  <br> Marketing Management |  |  |  |  | 1 | 40 | 2 |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NINTH TERM |  |  |  |  |  |  |  |  |  |
| LAW | 1824 | Business Law 2 | 3 | 0 | 3 |  |  |  |  |
| MGT | 2970 | Contemporary Leadership | 3 | 0 | 3 |  |  |  |  |
| MGT | 2975 | Business Management Seminar | 2 | 3 | 3 |  |  |  |  |
| MGT | 2988 | Quality Management | 3 | 0 | 3 |  |  |  |  |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |  |  |  |  |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |  |  |  |  |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |  |  |  |  |
|  |  | 18 | 6 | 20 |  |  |  |  |  |

## TENTH TERM

BUS 9222 Cooperative Education Business Management/ Marketing Management $14 \begin{array}{lll}2\end{array}$ $\overline{109}$
Computer Elective: OT 1850, OT 3036, OT 3058, OT 3064, OT 3068, OT 1864
Math Electives: Minimum of 9 credit hours: MAT 1121, MAT 1122, MAT 1123 or MAT 1151, MAT 1111, MAT 1112
English Elective: ENG 1003, ENG 1010
Business Elective: FIN 1804, FIN 2961, MKT 1873, MGT 2905,
MGT 2906, MGT 2907, MGT 2908, MKT 2909, MGT, 2910,
BUS 2973, MGT 2971, MKT 2990, ITM 2980, RE 2958
Speech Elective: SPE 1020, SPE 1024
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, any POL
Economics Elective: ECO 1512, ECO 1513, ECO 1514

## Business Financial Services Technology (BFS)

Co-op Coordinator - Jim Macke
Advisor - Meg Clark
Finance is the study of how individuals, institutions, and businesses acquire, spend, and manage money and other financial resources. Almost every firm, government agency, and organization has one or more financial managers who oversee the preparation of financial reports, direct investment activities, and implement cash management strategies.

The Business Financial Services program is a two-year program in which students may earn an Associate of Applied Business degree. The program provides a combination of sound financial business training and on-the-job experience. The program offers courses that cover basic corporate financial concepts, investment concepts, personal financial planning, and insurance planning. This program prepares students for jobs in service and industrial companies as well as financial institutions. These jobs might include: financial analyst, pricing analyst, cash manager, credit analyst, loan officer, security trader, or financial customer service representative.

## BUSINESS FINANCIAL SERVICES

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Cred | Hours |
| :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  | 3 | 0 | 3 |
| ENG | 1001 | English Composition 1 | 3 | 0 |
| 3 |  |  |  |  |
| MAT | 11 XX | Mathematics Elective | 3 | 0 |
| 3 |  |  |  |  |
| ECO | 1512 | Microeconomics | 3 | 0 |
| MKT | 2901 | Principles of Marketing 1 | 4 | 2 |
| 3 |  |  |  |  |
| ACC | 2926 | Financial Accounting 1 | 1 | 0 |
| BT | 9200 | Professional Practices | 2 | 3 |
| OT | XXXX | Computer Elective | 19 | 5 |

## SECOND TERM

| BUS | 9222 | Cooperative Education Business Management/ <br>  <br>  <br> Marketing Management |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| THIRD TERM | 1 | 40 | 2 |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 11 XX | Mathematics Elective | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2927 | Financial Accounting 2 | 4 | 2 | 5 |
| FIN | 2961 | Personal Finance | 3 | 0 | 3 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |

## FOURTH TERM

| BUS | 9222 | Cooperative Education Business Management/ |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Marketing Management | 1 | 40 | 2 |  |  |
| FIFTH TERM |  |  |  |  |  |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| MAT | 11 XX | Mathematics Elective | 3 | 0 | 3 |
| FIN | 1804 | Risk \& Insurance | 3 | 0 | 3 |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| FIN | 2960 | Business Finance | 3 | 0 | 3 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |

## SIXTH TERM

BUS 9222 Cooperative Education Business Management/

| Marketing Management |  |  |  | 1 |
| :--- | :--- | :--- | :--- | :--- |
| SEVENTH TERM | 40 | 2 |  |  |
| MKT | 1810 | Principles of Sales | 3 | 0 |

## EIGHTH TERM

| BUS | 9222 | Cooperative Education Business Management/ |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
|  | Marketing Management |  |  |  |  |  | 1 | 40 | 2 |
| NINTH TERM | 3 | 0 | 3 |  |  |  |  |  |  |
| SPE | $102 X$ | Speech Elective | 3 | 0 | 3 |  |  |  |  |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |  |  |  |  |
| FIN | 2968 | Principles of Investments 2 | 2 | 3 | 3 |  |  |  |  |
| MGT | 2975 | Business Management Seminar | 3 | 0 | 3 |  |  |  |  |

BUS 9233 Business Competencies
XXX XXXX Social Science Elective
202

## TENTH TERM

BUS 9222 Cooperative Education Business Management/ Marketing Management $1 \quad 10 \quad 2$ $\overline{110}$
Computer Elective: OT 1850, OT 3036, OT 3058, OT 3064, OT 3068
Math Electives: Minimum of 9 credit hours; MAT 1121, MAT 1122,
MAT 1123 or MAT 1151, MAT 1111, MAT 1112
Business Elective: MGT 2971, MGT 2988, BUS 2973, ACC 2921,
MKT 1810, MKT 2902, MKT 2990, RE 2958
English Elective: ENG 1003, ENG 1010
Speech Elective: SPE 1020, SPE 1024
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524,
LBR 1535, any POL.

## International Trade Management Technology (ITM)

Co-op Coordinator - Paul Callahan
Advisor - Paul Callahan
The International Trade Management curriculum provides a strong general business foundation and coursework in international concerns. Throughout the program students participate in a variety of applied instructional activities. Students work on individual and group country profile projects dealing with market entry, product, pricing, promotion, distribution, and export and import documentation along with international case studies and extensive use of the Internet for research.
Students who complete this program are prepared to work in international freight forwarding and logistics, customer service, and sales. Graduates earn an Associate of Applied Business degree. To enhance employability, advisors encourage students to take the courses required to complete an additional Associate of Applied Business degree program in Management, Marketing, or Finance.

## INTERNATIONAL TRADE MANAGEMENT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 11 XX | Mathematics Elective | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| ITM | 2980 | Introduction to International Business | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| XXX | XXXX | Foreign Language Elective 1 | 4 | 0 | 4 |
| OT | XXXX | Computer Elective | 2 | 3 | 3 |
|  |  |  | 19 | 3 | 20 |

## SECOND TERM

ITM 9252 Cooperative Education

|  | International Trade Management |  | 1 | 40 |
| :--- | :--- | :---: | :---: | :---: |
| THIRD TERM |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 |
| MAT | 11 XX | Mathematics Elective | 3 | 0 |
| 3 |  |  |  |  |
| ECO | 151 X | Economics Elective | 3 | 0 |
| SCM | 1880 | Transportation Logistics | 3 | 0 |
| SCT | 2902 | Principles of Marketing 2 | 3 | 0 |
| MKX | 3 |  |  |  |
| XXX | XXXX | Foreign Language Elective 2 | 4 | 0 |

## FOURTH TERM

ITM 9252 Cooperative Education International Trade Management $14 \begin{array}{lll}2\end{array}$

FIFTH TERM

| MAT | 11XX | Mathematics Elective | 3 | 0 | 3 |
| :--- | ---: | :--- | :---: | :---: | :---: |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
| ITM | 2981 | International Marketing | 3 | 0 | 3 |
| XXX | XXXX | Foreign Language Elective 3 | 4 | 0 | 4 |
|  |  | 16 | 0 | 16 |  |

SIXTH TERM

| ITM | 9252 | Cooperative Education <br> International Trade Management | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SEVENTH TERM |  |  |  |  |  |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| GEO | $155 X$ | Geography Elective | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| ITM | 2983 | Import and Export Essentials | 4 | 0 | 4 |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |

EIGHTH TERM
ITM 9252 Cooperative Education International Trade Management $140 \quad 2$

## NINTH TERM

SPE 102X Speech Elective $\quad 3 \quad 0 \quad 3$

OT 1863 Electronic Spreadsheets (Excel) 20203
ACC 2927 Financial Accounting 2
MGT 2989 Customer Service Systems
MGT 2996 Project Management
BUS 9233 Business Competencies
TENTH TERM
ITM 9252 Cooperative Education International Trade Management $140 \frac{2}{108}$
Computer Elective: OT 1850, OT 3036, OT 3058, OT 3064, OT 3068, OT 1864
Math Electives: Minimum of 9 credit hours: MAT 1121, MAT 1122,
MAT 1123 or MAT 1151, MAT 1111, MAT 1112
English Elective: ENG 1003, ENG 1010
Speech Elective: SPE 1020, SPE 1024
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, any POL.
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Geography Elective: GEO 1551, GEO 1552, GEO 1553
Foreign Language Elective: FRN 1060, FRN 1061, FRN 1062,
FRN 1063, FRN 1064, FRN 1065, GRM 1070, GRM 1071,
GRM 1072, GRM 1073, GRM 1074, GRM 1075, SPN 1077,
SPN 1078, SPN 1079, SPN 1083, SPN 1084, SPN 1085

## Marketing Management Technology (MMT)

Co-op Coordinator - Jim Macke
Advisors - Alicia Revely, Jim Wood
Marketing encompasses the activities through which businesses satisfy customer needs to earn profits for the organization. The Marketing Management Technology program is a two-year degree program in which students may earn an Associate of Applied Business degree. The program teaches students to deal with the four fundamentals of marketing: product (conception, development, modification); promotion (advertising, personal selling, sales promotion, public relations); price (strategy, calculation); and distribution (transportation, warehousing). This program prepares students for jobs providing sales leadership, managing retail operations, developing promotional activities, or overseeing distribution.

| MARKETING MANAGEMENT TECHNOLOGY |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State. |  |  |  |  |  |
|  |  |  |  |  |  |
| ( ${ }^{\text {a }}$ |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| ENC | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 11XX | Mathematics Elective | 3 | 0 | 3 |
| ECO | 151X | Economics Elective | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| OT | XXXX | Computer Elective | 2 | 3 | 3 |
|  |  |  | 18 | 3 | 19 |

## SECOND TERM

| BUS | 9222 | Cooperative Education Business Management/ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Marketing Management | 1 | 40 | 2 |
| THIRD TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| MAT | 11XX | Mathematics Elective | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
|  |  |  | 17 | 2 | 18 |

FOURTH TERM

| BUS | 9222 | Cooperative Education Business Management/ |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  | Marketing Management | 1 | 40 | 2 |  |
| FIFTH TERM |  |  |  |  |  |
| MAT | 11 XX | Mathematics Elective | 3 | 0 | 3 |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| MKT | 1844 | Principles of Advertising | 3 | 0 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| ITM | 2981 | International Marketing | 3 | 0 | 3 |
|  |  | 19 | 2 | 20 |  |

## SIXTH TERM

$\begin{array}{llccc}\text { BUS } 9222 & \begin{array}{l}\text { Cooperative Education Business Management/ } \\ \text { Marketing Management }\end{array} & 1 & 40 & 2\end{array}$

## SEVENTH TERM

| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ACC | 2927 | Financial Accounting 2 | 4 | 2 | 5 |
| FIN | 2960 | Business Finance | 3 | 0 | 3 |
| MGT | 2970 | Contemporary Leadership | 3 | 0 | 3 |
| MKT | 2997 | Marketing Research | 3 | 0 | 3 |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |
| XXX | XXXX | Business Elective | 3 | 0 | 3 |
|  |  | 22 | 2 | 23 |  |

## EIGHTH TERM

| BUS | 9222 | Cooperative Education Business Management/ <br>  <br>  <br> Marketing Management | 1 | 40 | 2 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| NINTH TERM |  |  |  |  |  |
| MGT | 2975 | Business Management Seminar | 2 | 3 | 3 |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
| MGT | 2996 | Project Management | 3 | 0 | 3 |
| MKT | 2998 | Direct Marketing | 3 | 0 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |
|  |  | 15 | 6 | 17 |  |

## TENTH TERM

BUS 9222 Cooperative Education Business Management/ Marketing Management $140 \frac{2}{10}$
Computer Elective: OT 1850, OT 3036, OT 3058, OT 3064, OT 3068, OT 1864
Math Electives: Minimum of 9 credit hours: MAT 1121, MAT 1122, MAT 1123 or MAT 1151, MAT 1111, MAT 1112
English Elective: ENG 1003, ENG 1010
Speech Elective: SPE 1020, SPE 1024
Economics Elective: ECO 1512, ECO 1513, ECO 1514

Business Elective: MKT 1880, MGT 2971, MGT 2988, MKT 2990,
LAW 1824, FIN 2961, BUS 2973, ITM 2980, RE 2958
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524,
LBR 1535, any POL

## Technology Management (TMGT)

Ohio Board of Regents approval for the Technology
Management program is pending.
Co-op Coordinator - Jim Macke
Advisors - Sharon White, Jeff Vetter
Information Systems have transformed the way business is conducted. Those who understand the power of leveraging technology in business can create their own competitive advantage. The Technology Management curriculum provides business students with the knowledge and skills required to effectively design and deploy IT-based business solutions. The program provides students with a solid background in information systems analysis and development, along with skills in leadership, project management, and understanding the impact of technology. Graduates earn an Associate of Applied Business degree, and are qualified for positions as business strategist/analyst, business operational specialist, project manager, and technology marketing manager.

## TECHNOLOGY MANAGEMENT

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 |
| 3 |  |  |  |  |
| OT | 1850 | Introduction to Computer Applications | 3 | 2 |
| 4 |  |  |  |  |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 |
| 3 |  |  |  |  |
| MGT | 2965 | Principles of Management 1 | 3 | 0 |
| 3 |  |  |  |  |
| BT | 9200 | Professional Practices | 1 | 0 |
|  |  |  | 13 | 2 |

## SECOND TERM

IT 5201 Information Technology Concepts 2033
TMGT9218 Cooperative Education
Technology Management

## THIRD TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 11 XX | Math Elective | 4 | 0 | 4 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| IT | 5453 | Web Development 1 | 2 | 3 | 3 |
|  |  | 16 | 5 | 18 |  |

## FOURTH TERM

| IT | 5291 | Visual BASIC 1 | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |

TMGT9218 Cooperative Education

Technology Management $\quad$| 1 | 40 | 2 |
| :--- | :--- | :--- |
|  | 3 | 43 |

FIFTH TERM
$\begin{array}{llllll}\text { MAT } & 1111 & \text { Statistics } 1 & 3 & 0 & 3\end{array}$
LAW 1823 Business Law $1 \quad 3 \quad 0 \quad 3$
ACC 2927 Financial Accounting 2 402
IT 5151 Network Communications 1

| 2 | 3 | 3 |
| :--- | :--- | :--- |
| 2 | 3 | 3 |


|  | 14 | 8 |
| :---: | :---: | :---: |

## SIXTH TERM

TMGT9218
Cooperative Education Technology Management
XXX XXXX Social Science Elective

| 1 | 40 | 2 |
| :---: | :---: | :---: |
| 3 | 0 | 3 |
| 4 | 40 | 5 |



Math Elective: MAT 1124, MAT 1151
Social Science Electives: Select two courses from the following areas: ECO, HST, PSY, SOC, POL
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Technology Elective: IT 5122, IT 5152, IT 5154, IT 5292, IT 5321, IT 5332, IT 5454, TC 5020

## Entrepreneurship Certificate (ETRPC)

Advisor - Jim Wood
This program serves people who are interested in learning the essentials of starting a successful home-based business or small company. Students in the Entrepreneurship Certificate program learn to select the right business, set up a profitable enterprise, get business coming quickly and steadily, operate a business productively using technology, and create a customer-focused company.

## ENTREPRENEURSHIP CERTIFICATE



## Human Resource Management Certificate (HRC)

Advisor - Carolyn Waits
The Human Resource Management Certificate is for students interested in the increasingly specialized field of human resource management and for professionals who have moved into human resource management from other functional areas of their organizations. The certificate provides students with specific knowledge and skills in employment law, employee compensation plans, employee benefits plans, and continuous quality improvement.
Students earning an associate's degree in a Management area may want to add the Human Resource Management Certificate to enhance their studies. These students may also want to consider adding the Employee and Labor Relations Certificate to complement their Human Resource Management Certificate.

## HUMAN RESOURCE MANAGEMENT CERTIFICATE

All degree-seeking students must complete the course FYE 9002
College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab | Hours |
| :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |
| SPE | $10 X X$ | Speech Elective | 3 | 0 |
| 3 |  |  |  |  |
| ECO | 1512 | Microeconomics | 3 | 0 |
| LBR | 1535 | Intro. to Labor/Management Relations | 3 |  |
| LAW | 1823 | Business Law 1 | 3 | 0 |
| MGT | 2965 | Principles of Management 1 | 3 | 0 |

SECOND TERM

| LBR | 1539 | Introduction to |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Employment and Workplace Law 1 | 3 | 0 | 3 |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| BUS | 2973 | Business Ethics | 3 | 0 | 3 |
| OT | XXXX | Computer Elective | 3 | 2 | 4 |
|  |  | 15 | 2 | 16 |  |

THIRD TERM
LBR 1540 Introduction to
Employment and Workplace Law $2 \quad 3 \quad 0 \quad 3$
MGT 1833 Compensation Management
303
MGT 1834 Employee Benefits $\quad 3 \quad 0 \quad 3$

MGT 2996 Project Management $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
|  | 12 | 0 |

$\overline{43}$
Computer Elective: OT 1850 or one of the following: OT 1863,
OT 1864, OT 3036, OT 3064, OT 3068
Speech Elective: SPE 1020, SPE 1024

## Paralegal Certificate (PAC)

Advisor - Michael Chikeleze
This certificate program prepares students for careers in the legal profession in three key employment areas: employees of attorneys (the dominant category), self-employed individuals who work for attorneys, and self-employed individuals who provide their services directly to the public with attorney supervision. Students learn substantive and procedural law, concentrating on the most prevalent areas of a legal practice, such as domestic relations, as well as general civil and criminal litigation practice. They become proficient at legal research, document drafting, and persuasive writing.

## PARALEGAL CERTIFICATE

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class <br> Lab | Credit <br> Hours |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |  |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| OT | 3058 | Microsoft Word for Windows | 2 | 3 | 3 |
|  |  | 5 | 3 | 6 |  |

SECOND TERM
LAW 1824 Business Law $2 \quad 3 \begin{array}{lll}3\end{array}$

LAW 1829 Litigation $\quad$| 3 | 0 | 3 |
| :--- | :--- | :--- |
| 6 | 0 | 6 |

## THIRD TERM

| LAW | 1830 | Legal Research 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| LAW | 1838 | Legal Ethics | 3 | 0 | 3 |
| OT | 3016 | Introduction to Legal Environment | 3 | 0 | 3 |
|  |  | 9 | 0 | 9 |  |

FOURTH TERM
LAW 1828 Family Law $\begin{array}{lll}3 & 0 & 3\end{array}$

LAW 1831 Legal Research $2 \quad$| 3 | 0 | 3 |
| :--- | :--- | :--- |
| 6 | 0 | 6 |

FIFTH TERM

| OT | 3017 | Legal Formatting | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| XXX | XXXX | Technical Elective | 3 | 0 | 3 |
|  |  | 5 | 3 | 6 |  |

## SIXTH TERM

XXX XXXX Technical Elective 3

XXX XXXX Technical Elective $\quad$| 3 | 0 | 3 |
| :--- | :--- | :--- |
| 6 | 0 | 6 |

Technical Electives: LAW 1825, LAW 1827, LAW 1875, LAW 1839,
LBR 1539, LBR 1540, OT 3002, OT 3003, OT 3068, OT 3069,
OT 3073, CRJ 1253, CRJ 1255, CRJ 1256, CRJ 1257

## Graphic Communications Technologies

Program Chair - Gary Walton
Co-op Coordinator - Joe Roberts
Advisor - Kathleen Freed
The Graphic Communications Technologies programs provide competencies for success in the graphics and printing industry. Programs leading to Associate of Applied Business degrees are available for Graphics Imaging. Degree programs require cooperative education experience.

## Graphics Imaging Technology (GIT)

The Graphics Imaging Technology curriculum provides students with a background in creating graphic images from concept to final production on a printing press. Students gain an overview of all facets of the industry including design, graphics software, digital photography, customer service, sales, management, estimating, and printing processes.
Students may earn a two-year Associate of Applied Business degree that combines classroom coursework, labs, and co-op employment with an area employer. Students receive in-depth training on Macintosh and Windows-based computers using the industry's leading graphics software. They learn to produce jobs on a variety of printing presses such as sheet-fed offset, digital, flexographic, screen, and letterpress. Lecture topics include training in estimating, selecting ink and paper, and printing processes emphasizing offset press technology.

## GRAPHICS IMAGING TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.


## EIGHTH TERM

| SPE | $102 X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| GC | 1429 | Screen Printing | 2 | 6 | 4 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| ACC | 2924 | Accounting for Non-Financial Managers | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
|  |  |  | 13 | 9 | 16 |

NINTH TERM
GC 9223 Cooperative Education - Graphics $\quad 1 \quad 40$

XXX $\quad$ XXXX $\quad$ Social Science Elective $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
|  |  | 40 |

## TENTH TERM

GC 9223 Cooperative Education-Graphics $1 \begin{array}{lll}40 & 2\end{array}$
BUS 9233 Business Competencies

| 1 | 40 | 2 |
| :---: | :---: | :---: |
| 2 | 0 | 2 |
| 3 | 40 | $\frac{4}{109}$ |

Speech Elective: 3 credit hours from any SPE
Social Science Elective: any PSY, ECO, SOC, LBR, HST, GEO

## Advertising Design Certificate (ADC)

The Advertising Design certificate trains students to help businesses maximize their return on advertising investments. Students in the Advertising Design program learn to generate ideas, manipulate images, and use various design methods to create effective advertising. Students learn how to pinpoint targeted prospects cost-effectively, use advertising to generate a constant stream of inquiries, and convert a high proportion of prospects into clients/customers. Students learn computer design, digital camera processes, concept development, communication techniques, and presentation skills. Graduates master the entire advertising process, from research to developing creative objectives for various advertising and promotional strategies. Advertising Design graduates find career placement in advertising agencies and major industries.

## ADVERTISING DESIGN CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| GC | 1403 | Computer Graphics for Printing 1 | 2 | 3 | 3 |
| GC | 1415 | Graphic Arts Processes | 2 | 3 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
|  |  | 7 | 6 | 9 |  |

## SECOND TERM

| GC | 1421 | Computer Graphics for Printing 2 | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GC | 1480 | Digital Photography \& Imaging 1 | 1 | 4 | 3 |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
|  |  | 6 | 7 | 9 |  |

THIRD TERM

| GC | 1481 | Computer Graphics for Printing 3 | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ART | 1692 | Design 1 | 2 | 3 | 3 |
| MKT | 1844 | Principles of Advertising | 3 | 0 | 3 |
|  |  |  | 7 | 6 | 9 |

## FOURTH TERM

| GC | 1423 | Adobe InDesign | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GC | 1483 | Computer Graphics for Printing 4 | 2 | 3 | 3 |
| MKT | 1873 | E-Commerce Business Strategy | 2 | 2 | 3 |
|  |  |  | 6 | 8 | 9 |

## FIFTH TERM

| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MKT | 1878 | Internet Advertising | 2 | 2 | 3 |
| MGT | 2989 | Customer Service Systems | 3 | 0 | 3 |
|  |  | 8 | 2 | 9 |  |

SIXTH TERM

| SPE | $10 X X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GC | 1484 | Commercial Portfolio Production | 1 | 0 | 1 |
| MKT | 2990 | Entrepreneurial Marketing | 3 | 0 | 3 |
|  |  |  | 0 | $\frac{7}{52}$ |  |

Speech Elective: SPE 1020, SPE 1023, SPE 1024, SPE 1027

## Production Artist Certificate (PDAC)

The Production Artist Certificate provides the skills to prepare design for print media using graphic software and printing processes and techniques. The program emphasizes design skills, using several types of printing presses, and issues with color reproduction and basic and digital photography techniques.

## PRODUCTION ARTIST CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

## Hours Per Week Credi

|  |  |  | Hours Per Week <br> Class | Credit <br> Hours |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |  |
| GC | 1403 | Computer Graphics for Printing 1 | 2 | 3 | 3 |
| GC | 1415 | Graphic Arts Processes | 2 | 3 | 3 |
| GC | 1419 | Survey of Printing Inks | 3 | 0 | 3 |
| ART | 1685 | Introduction to Photography | 2 | 3 | 3 |
|  |  |  | 9 | 9 | 12 |

SECOND TERM

| GC | 1421 | Computer Graphics for Printing 2 | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GC | 1426 | Packaging and Advertising Processes | 3 | 0 | 3 |
| GC | 1480 | Digital Photography \& Imaging 1 | 1 | 4 | 3 |
|  |  | 6 | 7 | 9 |  |

## THIRD TERM

| GC | 1423 | Adobe InDesign | 2 | 3 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| GC | 1429 | Screen Printing | 2 | 6 | 4 |
| GC | 1449 | Printing Estimating 1 | 2 | 3 | 3 |
|  |  | 6 | 12 | 10 |  |

## FOURTH TERM

| GC | 1430 | Label and Packaging Presswork 1 | 1 | 7 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| GC | 1439 | Introduction to Offset Presswork | 1 | 4 | 3 |
| GC | 1481 | Computer Graphics for Printing 3 | 2 | 3 | 3 |
|  |  |  | 4 | 14 | 10 |

## FIFTH TERM

GC 1483 Computer Graphics for Printing $4 \quad 2 \quad 3 \quad 3$
GC 1490 Digital Photography \& Imaging $2 \quad 1 \quad 4 \quad 3$
MGT 2989 Customer Service Systems

## PRINTING MANAGEMENT CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per <br> Class | Week <br> Lab | Credit <br> Hours |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  | 2 | 3 | 3 |  |
| GC | 1403 | Computer Graphics for Printing 1 | 2 | 3 | 3 |
| GC | 1415 | Graphic Arts Processes | 3 | 0 | 3 |
| GC | 1419 | Survey of Printing Inks | 7 | 6 | 9 |

SECOND TERM
GC 1421 Computer Graphics for Printing 2 2
GC 1449 Printing Estimating $1 \quad 2 \begin{array}{lll}144 & 3\end{array}$
GC $\begin{array}{llllll}1480 & \text { Digital Photography \& Imaging } 1 & 1 & 4 & 3\end{array}$

BUS 2925 Business Principles $\quad$| 3 | 0 | 3 |
| :--- | :--- | :--- |

THIRD TERM
GC 1426 Packaging and Advertising Processes $\quad 3 \quad 0 \quad 3$
$\begin{array}{lllll}\text { MKT } 2901 & \text { Principles of Marketing } 1 & 3 & 0 & 3\end{array}$

| MGT 2965 | Principles of Management 1 | 3 0 3 <br>   0 |
| :--- | :--- | :--- |

FOURTH TERM

| GC | 1430 | Label and Packaging Presswork 1 | 1 | 7 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GC | 1439 | Introduction to Offset Presswork | 1 | 4 | 3 |
| MKT | 1873 | E-Commerce Business Strategy | 2 | 2 | 3 |

MGT 2966 Principles of Management $2 \quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |

## FIFTH TERM

GC 1450 Printing Estimating 2

| 2 | 3 | 3 |
| :--- | :--- | :--- |
| 3 | 0 | 3 |
| 3 | 0 | 3 |
| 8 | 3 | $\frac{9}{52}$ |

## Hospitality Management Technologies

Program Chair - Jeff Sheldon
Laura Horn, RD, LD (Dietetic Technology only) Co-op Coordinators - Kendra Wilburn, Kathleen Ruppert
Advisors - Charalee Allen, Meg Galvin, Pat Huller,
John Kinsella, Jim Myatt, Alan Neace
Midwest Culinary Institute/
University of Cincinnati Liaison - Meg Galvin University of Cincinnati
Co-op Coordinator - Kathleen Ruppert
The Hospitality Management Technologies program provides knowledge and skills for a range of positions in food service, lodging, and health care. Degree programs are available for Culinary Arts, Dietetic Technician, Food Service Management, Hotel Management, and a Pastry Arts degree and certificate. These programs, except Dietetic Technician, require cooperative education experience. In addition, certificates in Culinary Arts and Dietary Management are available. All programs include professional management courses certified by the National Restaurant Association.

## Culinary Arts Technology (CUL)

In the Culinary Arts program, students receive training in all aspects of food preparation including methods of cookery, sauces, soups, butchery, garde manger, pastry, and confectionaries, in addition to culinary management. This program is accredited by the American Culinary Federation Educational Institute. Graduates earn an Associate of Applied Business degree and are prepared for employment in hotels, restaurants, clubs, resorts, catering, and health care food service operations. Culinary Arts graduates are qualified to continue their education in the University of Cincinnati's Bachelor of Applied Science in Culinary Arts and Science program.

## CULINARY ARTS

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per WeekClass Lab |  | $\begin{aligned} & \text { Credit } \\ & \text { Hours } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| FIRST TERM |  |  |  |  |
| ENG 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT 1108 | Math for Food Service | 1 | 2 | 2 |
| CUL 3601 | Cooking 1-Skills Development | 0 | 6 | 2 |
| HRM 3630 | Survey of Hospitality Careers | 2 | 0 | 2 |
| HRM 3631 | Food Service Sanitation | 2 | 0 | 2 |
| BT 9200 | Professional Practices | 1 | 0 | 1 |
| OT XXXX | Computer Elective | 2 | 3 | 3 |
|  |  | 11 | 11 | 15 |
| SECOND TERM |  |  |  |  |
| ENG 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT 11XX | Mathematics Elective | 3 | 0 | 3 |
| CUL 3602 | Cooking 2 - Stock Sauces, Soup | 0 | 6 | 2 |
| CUL 3611 | Baking for Restaurants 1 | 0 | 6 | 2 |

HRM 3632 Food \& Beverage Cost Control 1 $\quad 3 \quad 0 \quad 3$

XXX $\quad$ XXXX $\quad$ Social Science Elective $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
|  |  | 12 |

## THIRD TERM

| HOSP 9224 | Cooperative Education- <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :---: | :---: | :---: |
| FOURTH TERM |  |  |  |  |
| ENG | $10 X X$ | English Elective | 3 | 0 |
| 3 |  |  |  |  |
| MAT | 11 XX | Mathematics Elective | 3 | 0 |
| 3 |  |  |  |  |
| DT | 1202 | Nutrition for a Healthy Lifestyle | 3 | 0 |
| 3 |  |  |  |  |
| LAW | 1825 | Hospitality Law | 3 | 0 |
| CUL | 3603 | Cooking 3 - Meat, Fish, Poultry | 0 | 6 |
|  | 2 |  |  |  |
| CUL | 3612 | Baking for Restaurants 2 | 0 | 6 |
| 2 |  |  |  |  |
| HRM | 3633 | Food \& Beverage Cost Control 2 | 3 | 0 |
|  |  | 15 | 12 | 19 |

## FIFTH TERM

| HOSP 9224 | Cooperative Education- <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :---: | :---: | :---: |
| SIXTH TERM |  |  |  |  |
| SPE | 1020 | Public Speaking | 3 | 0 |
| 3 |  |  |  |  |
| ACC | 2924 | Accounting for Non-Financial Managers | 3 | 0 |
| 3 |  |  |  |  |
| CUL | 3604 | Cooking 4 - Restaurant Cooking | 0 | 6 |
| CUL | 3605 | Cooking 5 - Butchery and Fish Mongering 1 | 3 | 2 |
| CUL | 3606 | Cooking 6 - Nutritional Cooking | 0 | 6 |
| 2 |  |  |  |  |
| HRM | 3634 | Dining Room Service 1 | 0 | 6 |
| HRM | 3636 | Hospitality Sales \& Marketing | 3 | 0 |
|  |  | 10 | 21 | 17 |

## SEVENTH TERM

| HOSP 9224 | Cooperative Education- <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :---: | :---: | :---: |
| EIGHTH TERM |  |  |  |  |
| MGT | 2989 | Customer Service Systems | 2 | 3 |
| 3 |  |  |  |  |
| CUL | 3607 | Cooking 7 - Garde Manger | 0 | 9 |
| 3 |  |  |  |  |
| CUL | 3608 | Cooking 8 - International Cuisine | 0 | 6 |
| HRM | 3635 | Food \& Beverage Supervision | 3 | 0 |
| 3 |  |  |  |  |
| XXX XXXX | Social Science Elective | 3 | 0 | 3 |
| ECO XXXX | Economics Elective | 3 | 0 | 3 |
|  |  | 11 | 18 | 17 |

NINTH TERM

| HOSP 9224 | Cooperative Education- <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- | :--- |
| TENTH TERM |  |  |  |  |
| CUL | 3609 | Cooking 9 - Banquets | 0 | 9 |
| 3 |  |  |  |  |
| CUL | 3610 | Cooking 10 - Adv. Restaurant Cooking | 0 | 9 |
| HRM | 3638 | Beverage Management and Mixology | 0 | 6 |
| HRM | 3640 | Dining Room Service 2 | 0 | 6 |
| HUS | 9233 | Business Competencies | 2 | 0 |
|  |  | 2 | 30 | $\frac{12}{104}$ |

Math Electives: MAT 1121 and MAT 1122 (no transfer); or
MAT 1151 and MAT 1152; or MAT 1124 and MAT 1111 and MAT 1112 English Elective: ENG 1003, ENG 1010
Social Science Elective: any ECO, PSY, SOC, LBR, HST, GEO, ART, MUS, LIT, PHI, POL
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Computer Elective: OT 1850, OT 1863, OT 3058

## Culinary Arts Certificate (CAC)

The Culinary Arts certificate program provides a combination of courses in food preparation and culinary management. Students prepare for a variety of positions in the food service industry. This one-year evening program includes courses required for individual certification with the American Culinary Federation.

## CULINARY ARTS CERTIFICATE



Culinary Elective: CUL 3612, CUL 3604, CUL 3606, HRM 3635

## Dietetic Technician Program (DT)

The Dietetic Technician program includes courses in foods, nutrition, food service management, and a range of general science courses. Graduates of the Dietetic Technician program earn an Associate of Applied Science degree. Students prepare for positions in health care, business and industry, public health, food service, and research. Dietetic technicians work independently or in teams with Registered Dietitians and are an integral part of health care and food service management teams.
The Dietetic Technician program is accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association. Students complete a minimum of 450 hours of supervised practice experience in various community programs, health care, and food service facilities. Successful completion of the program qualifies students to take the registration exam given by the Commission on Dietetic Registration of the American Dietetic Association.

## DIETETIC TECHNICIAN

All degree-seeking students must complete the course FYE 9002
College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit

|  |  | Hours Per <br> Class |  |  | Ceedit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HIRST TERM |  |  |  |  |  |
| Hours |  |  |  |  |  |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| DT | 1201 | Dietetics Professional Practice | 1 | 0 | 1 |
| DT | 1203 | Cooking for a Healthy Lifestyle | 1 | 3 | 2 |
| DT | 1204 | Nutrition for the Life Cycle | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
|  |  | 11 | 5 | 13 |  |
| THIRD TERM |  |  |  |  |  |
| DT | 1205 | Nutrition Assessment 1 | 1 | 2 | 2 |
| DT | 1206 | Community Nutrition | 2 | 0 | 2 |
| DT | 1230 | Dietetic Directed Practice - Lifespan | 0 | 5 | 1 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| MCH | 4806 | Medical Terminology 1 | 3 | 0 | 3 |

FOURTH TERM

| MAT | 1108 | Math for Food Service | 1 | 2 | 2 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| DT | 1231 | Dietetic Directed Practice - Health Care | 0 | 5 | 1 |
| DT | 1240 | Nutrition Assessment 2 | 3 | 0 | 3 |
| HRM | 2801 | Food Service Sanitation | 2 | 0 | 2 |
| CUL | 2837 | Food Service Equipment and Safety | 1 | 0 | 1 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
|  |  | 10 | 9 | 13 |  |
| FIFTH TERM |  |  |  |  |  |
| SPE | $10 X X$ | Speech Elective | 3 | 0 | 3 |
| ECO | $15 X X$ | Economics Elective | 3 | 0 | 3 |
| XXX | XXXX | HUM/Social Science Elective | 3 | 0 | 3 |
| OT | XXXX | Computer Elective | 2 | 2 | 3 |
|  |  |  | 11 | 2 | 12 |
| SIXTH TERM |  | 3 | 0 | 3 |  |
| ENG | $10 X X$ | English Elective | 2 | 2 | 3 |
| DT | 1241 | Medical Nutrition Therapy 1 |  |  |  |
| DT | 1250 | Dietetic Technician | 0 | 5 | 1 |
|  |  | Directed Practice - MNT 1 | 3 | 0 | 3 |
| CUL | 2831 | Theory of Cooking | 1 | 4 | 3 |
|  | HRM | 2854 | Food Production | 9 | 11 |
|  |  |  |  | 13 |  |

SEVENTH TERM
DT 1207 Food and Culture $1 \quad 3 \quad 2$
DT 1242 Medical Nutrition Therapy 2 2023
DT 1251 Dietetic Technician
Directed Practice - MNT $2 \quad 0 \quad 10 \quad 2$
HRM 2802 Food \& Beverage Cost Control $1 \quad 3 \quad 0 \quad 3$

HRM 2805 Food \& Beverage Supervision $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
|  |  | 15 |

EIGHTH TERM

| DT | 1208 | Food Systems Management 1 | 1 | 0 | 1 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| DT | 1232 | Dietetic Food Service Practicum 1 | 0 | 7 | 1 |
| DT | 1243 | Medical Nutrition Therapy 3 | 2 | 2 | 3 |
| DT | 1252 | Dietetic Technician |  |  |  |
|  |  | Directed Practice - MNT 3 | 0 | 5 | 1 |
| XXX | XXXX | Technical Elective | 2 | 0 | 2 |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |
|  |  | 8 | 14 | 11 |  |

NINTH TERM

| DT | 1209 | Food Systems Management 2 | 1 | 0 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| DT | 1233 | Dietetic Food Service Practicum 2 | 0 | 7 | 1 |
| DT | 1244 | Dietetic Technician Seminar | 1 | 0 | 1 |
| DT | 1245 | Dietetic Technician Exam Preparation | 1 | 0 | 1 |
| DT | 1253 | Dietetic Technician Clinical Practicum | 0 | 7 | 1 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
|  |  |  | 14 | $\frac{7}{107}$ |  |

Social Science Elective: any ECO, CULT, GEO, HST, LBR, PSY, SOC, ART, MUS, LIT, PHI
Speech Elective: SPE 1020, SPE 1024, SPE 1027
English Elective: ENG 1003, ENG 1010, ENG 1011
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Computer Elective: OT 1850, OT 1863, OT 3058
Technical Elective: MGT 2989, HRM 2804, HRM 2808, HRM 2821, DT 1298, MCH 4807, HFT 4163

## Dietary Management Certificate (DMC)

The Dietary Management Certificate program provides courses in food service management, nutrition, sanitation, and human resources. Graduates may work as food service operations managers for health care, schools and other non-commercial food service settings. Dietary Managers work in teams with Registered Dietitians and are an integral part of health care and food service management teams.
The program is approved by the Dietary Managers Association. Students complete a minimum of 150 hours of field experience in various community programs, health care, and
food service facilities. Successful completion of the program qualifies students to take the two-part competency exam for certification through the Certifying Board for Dietary Managers.

## DIETARY MANAGEMENT CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.


## FOURTH TERM

| DT | 1220 | Nutrition for Dietary Managers | 2 | 0 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| DT | 1231 | Dietetic Directed Practice - Health Care | 0 | 5 | 1 |
| CUL | 2837 | Food Service Equipment and Safety | 1 | 0 | 1 |
|  |  |  | 3 | 5 | 4 |

## FIFTH TERM

HRM 2805 Food \& Beverage Supervision $\quad 3 \quad 0 \quad 3$

OT XXXX Computer Elective $\quad$| 2 | 3 | 3 |
| :--- | :--- | :--- |

## SIXTH TERM

| CUL | 2831 | Theory of Cooking | 3 | 0 |
| :--- | :--- | :--- | :--- | :--- |
| 3 |  |  |  |  |
| HRM 2854 | Food Production | 1 | 4 | 3 |
|  |  | 4 | 4 | 6 |

SEVENTH TERM

| HRM 2802 | Food \& Beverage Cost Control 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- |

EIGHTH TERM

| DT | 1208 | Food Systems Management 1 | 1 | 0 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| DT | 1232 | Dietetic Food Service Practicum 1 | 0 | 7 | 1 |
|  |  |  | 7 | 2 |  |

## NINTH TERM

DT 1209 Food Systems Management 2 1
DT 1233 Dietetic Food Service Practicum 2

| 1 | 0 | 1 |
| :---: | :---: | :---: |
| 0 | 7 | 1 |
| 1 | 7 | $\frac{2}{42}$ |

Computer Elective: OT 1850, OT 1863, OT 3058

## Food Service Management Technology (FSM)

In the Food Service Management program, students learn basic food service operation skills and progress to management training through classroom instruction, laboratory experience, and cooperative education. Graduates earn an Associate of Applied Business degree and are prepared for supervisory positions in a variety of food service operations including restaurants, clubs, cafeterias, and catering companies.

## FOOD SERVICE MANAGEMENT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |

## SECOND TERM

| HOSP 9224 | Cooperative Education- <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :---: | :---: | :---: |
| THIRD TERM |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 |
| MAT | 11 XX | Mathematics Elective | 0 | 3 |
| DT | 1202 | Nutrition for a Healthy Lifestyle | 3 | 0 |
| 3 |  |  |  |  |
| LAW | $18 X X$ | Business Law Elective | 3 | 0 |
| CUL | 3602 | Cooking 2 - Stock Sauces, Soup | 0 | 6 |
| HRM | 3632 | Food \& Beverage Cost Control 1 | 3 | 0 |
|  |  | 15 | 6 | 17 |

## FOURTH TERM

| HOSP 9224 | Cooperative Education- <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :---: | :---: | :---: |
| FIFTH TERM |  |  |  |  |
| ENG 10XX | English Elective | 3 | 0 | 3 |
| MAT | 11 XX | Mathematics Elective | 3 | 0 |
| 3 |  |  |  |  |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 |
| CUL | 3603 | Cooking 3 - Meat, Fish, Poultry | 0 | 6 |
|  | 2 |  |  |  |
| HRM | 3633 | Food \& Beverage Cost Control 2 | 3 | 0 |
| HRM | 3634 | Dining Room Service 1 | 0 | 6 |
| 2 |  |  |  |  |
| XXX XXXX | Social Science Elective | 3 | 0 | 3 |
|  |  | 16 | 14 | 21 |

## SIXTH TERM

| HOSP 9224 | Cooperative EducationHospitality Technologies | 1 | 40 | 2 |
| :---: | :---: | :---: | :---: | :---: |
| SEVENTH TERM |  |  |  |  |
| SPE 1020 | Public Speaking | 3 | 0 | 3 |
| HRM 2805 | Food \& Beverage Supervision | 3 | 0 | 3 |
| HRM 2821 | Hospitality Sales \& Marketing | 3 | 0 | 3 |
| ACC 2927 | Financial Accounting 2 | 4 | 2 | 5 |
| MGT 2989 | Customer Service Systems | 2 | 3 | 3 |
| HRM 3638 | Beverage Management and Mixology | 0 | 6 | 2 |
| HRM 3640 | Dining Room Service 2 | 0 | 6 | 2 |
|  |  | 15 | 17 | 21 |

## EIGHTH TERM

HOSP $9224 \begin{aligned} & \text { Cooperative Education- } \\ & \text { Hospitality Technologies }\end{aligned}$
Hospitality Technologies $\quad 1 \quad 40 \quad 2$
NINTH TERM
LBR 1539 Introduction to
Employment and Workplace Law $1 \quad 3 \quad 0 \quad 3$
ECO 15XX Economics Elective
MGT 1832 Human Resource Management $\quad 3 \quad 0 \quad 3$
BUS 2973 Business Ethics
CUL 3609 Cooking 9 - Banquets $\quad 0 \quad 9 \quad 3$

HRM 3641 Restaurant Operations $\quad 2$| 4 |
| :--- | :--- | :--- |

BUS 9233 Business Competencies $\quad$| 2 | 0 | 2 |
| :---: | :---: | :---: |
|  |  | 13 |

TENTH TERM
HOSP 9224
Cooperative Education-
Hospitality Technologies
$140 \frac{2}{105}$
Math Electives: MAT 1121 and MAT 1122 (No transfer); or
MAT 1151 and MAT 1152; or MAT 1124 and MAT 1111 and MAT 1112 English Elective: ENG 1003, ENG 1010

Social Science Elective: any PSY, SOC, ECO, LBR, GEO, HST, ART,
MUS, LIT, PHI, POL
Computer Elective: OT 1850, OT 1863, OT 3058
Law Elective: LAW 1823, LAW 1825
Economics Elective: ECO 1512, ECO 1513, ECO 1514

## Hotel Management Technology (HMT)

In the Hotel Management program, students learn basic lodging operation skills and progress to hotel management training through classroom instruction, laboratory experience, and cooperative education. Graduates earn an Associate of Applied Business degree and may expect to work in front office, housekeeping, accounting, and sales positions in hotels, motels, resorts, and other lodging operations.

## HOTEL MANAGEMENT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |

## SECOND TERM

HOSP 9224 Cooperative Education-
Hospitality Technologies $\quad 1 \quad 40 \quad 2$
THIRD TERM
ENG 1002 English Composition $2 \quad 3 \quad 0 \quad 3$
MAT 11XX Mathematics Elective $\quad 3 \quad 0 \quad 3$
ECO 15XX Economics Elective 3003
HRM 3632 Food \& Beverage Cost Control 1 3003
HRM 3652 Hotel Front Office Procedure 4
HRM 3653 Hospitality Housekeeping $\quad \begin{array}{ccc}3 & 0 & 3 \\ & 19 & 0\end{array} 19$

## FOURTH TERM

| HOSP 9224 | Cooperative Education- <br>  <br>  <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :---: | :---: | :---: |
| FIFTH TERM |  |  |  |  |
| ENG 10XX | English Elective | 3 | 0 | 3 |
| MAT 11XX | Mathematics Elective | 3 | 0 | 3 |
| LAW 18XX | Business Law Elective | 3 | 0 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 |
| HRM | 3633 | Food \& Beverage Cost Control 2 | 3 | 0 |
| HRM | 3634 | Dining Room Service 1 | 0 | 6 |
|  |  | 16 | 8 | 19 |

SIXTH TERM
HOSP 9224 Cooperative Education-
Hospitality Technologies $14 \begin{array}{lll}2\end{array}$

## SEVENTH TERM

| DT | 1202 | Nutrition for a Healthy Lifestyle | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ACC | 2927 | Financial Accounting 2 | 4 | 2 | 5 |
| CUL | 3609 | Cooking 9 - Banquets | 0 | 9 | 3 |
| HRM | 3635 | Food \& Beverage Supervision | 3 | 0 | 3 |
| HRM | 3636 | Hospitality Sales \& Marketing | 3 | 0 | 3 |
| HRM | 3638 | Beverage Management and Mixology | 0 | 6 | 2 |
| HRM | 3640 | Dining Room Service 2 | 0 | 6 | 2 |
|  |  | 13 | 23 | 21 |  |

## EIGHTH TERM

HOSP 9224 Cooperative EducationHospitality Technologies $\quad 1 \quad 40 \quad 2$

## NINTH TERM

| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| LBR | 1539 | Introduction to |  |  |  |
|  |  | Employment and Workplace Law 1 | 3 | 0 | 3 |
| MGT | 1832 | Human Resource Management | 3 | 0 | 3 |
| BUS | 2973 | Business Ethics | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
| HRM | 3641 | Restaurant Operations | 2 | 4 | 4 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
|  |  | 18 | 7 | 21 |  |

TENTH TERM
HOSP 9224 Cooperative Education-
Hospitality Technologies $140 \quad 2$

Math Electives: MAT 1121 and MAT 1122 and MAT 1123 (no transfer); or MAT 1151 and MAT 1152; or MAT 1124 and MAT 1111 and MAT 1112 English Elective: ENG 1003, ENG 1010
Social Science Elective: any PSY, SOC, GEO, LBR, HST, ECO, ART,
MUS, LIT, PHI, POL
Computer Elective: OT 1850, OT 1863, OT 3058
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Law Elective: LAW 1823, LAW 1825

## Pastry Arts Technology (PAS)

The Pastry Arts program prepares students for employment in the culinary industry as pastry chefs, or, as bakers in the field of baking and flour confectionery. The courses include technical aspects of baking and pastry commonly used in the industry, such as preparing yeast doughs; producing cakes, cookies, and cold desserts; and constructing pastry centerpieces. Graduates earn an Associate of Applied Business degree and are also eligible for certification from the National Retail Bakers Association. Graduates may work in hotels, restaurants, bakeries, pastry shops, and other food service operations that require the services of a baking or pastry professional.

## PASTRY ARTS TECHNOLOGY

All degree-seeking students must complete the course FYE 9002, College Success Strategies, as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |

## SECOND TERM

HOSP 9224 Cooperative Education-
Hospitality Technologies $1 \quad 40 \quad 2$

THIRD TERM
ENG 1001 English Composition $1 \quad 3 \begin{array}{lll}3\end{array}$
MAT 11XX Math Elective $\quad 3 \quad 0 \quad 3$
PAS 2851 Baking Theory 2
PAS 2861 Basic Baking 2
PAS 2862 Nutritional Baking
OT XXXX Computer Elective
XXX XXXX Social Science Elective

## FOURTH TERM

HOSP 9224 Cooperative Education-

|  | Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- | :--- |
| FIFTH TERM |  |  |  |  |
| ENG 1002 | English Composition 2 | 3 | 0 | 3 |


| MAT | 11 XX | Math Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| LAW | 1825 | Hospitality Law | 3 | 0 | 3 |
| PAS | 2853 | Pastry Theory | 3 | 0 | 3 |
| PAS | 2863 | Pastry Production | 1 | 4 | 3 |
| PAS | 2864 | Introduction to Pastry Design | 1 | 4 | 3 |
|  |  | 14 | 8 | 18 |  |

## SIXTH TERM

| HOSP 9224 | Cooperative Education- <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :---: | :---: | :---: |
| SEVENTH TERM |  |  |  |  |
| ENG | $10 X X$ | English Elective |  |  |
| LBR | 1539 | Introduction to Employment and |  | 0 |
|  |  | Workplace Law 1 | 3 |  |
| PAS | 2865 | Advanced Pastry | 3 | 0 |
| PAS | 2866 | Pastry Buffet and Design | 1 | 4 |
| 3 |  |  |  |  |
| ACC | 2924 | Accounting for Non-Financial Managers | 1 | 4 |
| MGT | 2989 | Customer Service Systems | 0 | 3 |
| HRM | 3635 | Food \& Beverage Supervision | 2 | 3 |

## EIGHTH TERM

| HOSP 9224 | Cooperative Education- <br> Hospitality Technologies | 1 | 40 | 2 |
| :--- | :--- | :---: | :---: | :---: |
| NINTH TERM |  |  |  |  |
| SPE | 1020 | Public Speaking | 3 | 0 |
| ECO | $15 X X$ | Economics Elective | 3 | 0 |
| 3 | 3 |  |  |  |
| PAS | 2867 | Restaurant Dessert Production | 2 | 8 |
| PAS | $28 X X$ | Pastry Elective | 1 | 4 |
| 3 |  |  |  |  |
| HRM | 3636 | Hospitality Sales \& Marketing | 3 | 0 |
| BUS | 9233 | Business Competencies | 2 | 0 |
|  |  | 14 | 12 | 20 |

## TENTH TERM

HOSP 9224 Cooperative EducationHospitality Technologies $1 \quad 40 \frac{2}{105}$
Math Electives: MAT 1121 and MAT 1122 (no transfer); or
MAT 1151 and MAT 1152; or MAT 1124 and MAT 1111 and MAT 1112
Computer Elective: OT 1850, OT 1863, OT 3058
English Elective: ENG 1003, ENG 1010
Social Science Elective: any ECO, PSY, SOC, LBR, HST, GEO, ART, MUS, LIT, PHI, POL
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Pastry Elective: PAS 2868, PAS 2869

## Pastry Arts Certificate (PASC)

The Pastry Arts Certificate program provides a basic introduction to the baking pastry production field. This one-year evening program includes instruction in various methods of pastry production used in the food service industry. This certificate program meshes with the Pastry Arts degree program, allowing students to apply earned credit toward obtaining a degree.

## PASTRY ARTS CERTIFICATE

|  |  | Hours Per Week <br> Class |  |  |
| :--- | :--- | :---: | :---: | :---: |
| Lab |  |  |  |  | | Credit |
| :---: |
| Hours |

## SECOND TERM

| PAS | 2851 | Baking Theory 2 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| PAS | 2861 | Basic Baking 2 | 3 | 0 |
| 3 |  |  |  |  |
|  |  | 1 | 4 | 3 |
|  |  | 4 | 4 | 6 |

## THIRD TERM

PAS 2853 Pastry Theory
PAS 2863 Pastry Production

FOURTH TERM

| DT | 1202 | Nutrition for a Healthy Lifestyle | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PAS | 2862 | Nutritional Baking | 1 | 3 | 2 |
|  |  | 4 | 3 | $\frac{5}{25}$ |  |

## Personal Chef Certificate (PCC)

The Personal Chef Certificate Program provides culinary and non-culinary training in small business management, nutrition, and healthy cooking. Upon completion, students will receive certification through the American Culinary Federation and be qualified to operate individual businesses as meal preparers to an established client base.
This certificate compliments the Culinary Arts and Pastry Arts degree programs.

## PERSONAL CHEF CERTIFICATE

This certificate compliments the Culinary Arts and Pastry Arts degree programs. Must successfully complete MAT 1108, Math for Food Service.

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 |
| 3 |  |  |  |  |
| CUL | 3601 | Cooking 1 - Skills Development | 0 | 6 |
| HRM | 3631 | Food Service Sanitation | 2 | 0 |
| 2 |  |  |  |  |
| CUL | 3670 | Personal Chef Principles | 2 | 0 |
| 2 |  |  |  |  |
| OT | XXXX | Computer Elective | 2 | 3 |
|  |  | 9 | 9 | 12 |

## SECOND TERM

| DT | 1202 | Nutrition for a Healthy Lifestyle | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :---: | :---: |
| MKT | 2990 | Entrepreneurial Marketing | 3 | 0 | 3 |
| CUL | 3602 | Cooking 2 - Stock Sauces, Soup | 0 | 6 | 2 |
| CUL | 3611 | Baking for Restaurants 1 | 0 | 6 | 2 |
|  |  |  | 12 | 10 |  |

THIRD TERM

| MGT | 2971 | Small Business Start-Up 1 | 3 | 0 |
| :--- | :--- | :--- | :--- | :--- |
| 3 |  |  |  |  |
| MGT | 2989 | Customer Service Systems | 2 | 3 |
| 3 |  |  |  |  |
| CUL | 3603 | Cooking 3-Meat, Fish, Poultry | 0 | 6 |
| 2 |  |  |  |  |
| CUL | 3612 | Baking for Restaurants 2 | 0 | 6 |
|  |  |  | 2 |  |

## FOURTH TERM

| DT | 1207 | Food and Culture | 1 | 3 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MGT | 2972 | Small Business Start-Up 2 | 3 | 0 | 3 |
| CUL | 3606 | Cooking 6 - Nutritional Cooking | 0 | 6 | 2 |
| HRM | 3632 | Food \& Beverage Cost Control 1 | 3 | 0 | 3 |
|  |  | 7 | 9 | 10 |  |

## FIFTH TERM

HRM 3633 Food \& Beverage Cost Control 2
CUL 3671 Personal Chef Practices

| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 1 | 4 | 3 |
| 4 | 4 | $\frac{6}{48}$ |

Computer Elective: OT 1850, OT 3058, OT 3092

## Landscape Horticulture Technologies

Program Chair - Mark Deacon
Co-op Coordinator - Joe Roberts
Advisor - Heather Wiggins
Landscape Horticulture Technologies programs provide knowledge and skills for several careers in the "green industry." Two programs leading to an Associate of Applied Business degree and two certificate programs are available. The industry in the Cincinnati area has been undergoing strong growth for several years; employment opportunities in the industry are good to excellent.

Because of the seasonal employment opportunities of horticultural jobs, these degree programs follow a unique co-op schedule. Students spend two terms during the growing season in cooperative employment during each of the two years of the program. These assignments usually occur during the Spring, Summer, and/or Early Fall terms.

## Landscape Horticulture Technology (LH)

The Landscape Horticulture major focuses on interior and exterior landscape design, installation, and management. Students complete required foundation courses in horticulture, then take additional technical courses in subject areas tailored to individual needs, including advanced landscape design, computerized landscape design, landscape construction, arboriculture, or greenhouse or nursery management. Core business courses are included, preparing students for management positions. Graduates earn an Associate of Applied Business degree. The Landscape Horticulture degree program is industry accredited by the Professional Landcare Network (PLANET), formerly known as the Associated Landscape Contractors of America.

## LANDSCAPE HORTICULTURE TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per <br> Class |  |  | Week <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: | | Credit |
| :---: |
| Hours |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MAT | $11 \times 2$ | Math Elective | 3 | 2 | 4 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| LH | 3500 | Orientation to Horticulture Occupations | 1 | 0 | 1 |
| LH | 3510 | Small Engine Maintenance \& Repair | 2 | 2 | 3 |
| LH | 3532 | Landscape Management | 2 | 3 | 3 |
|  |  |  | 14 | 7 | 17 |

## THIRD TERM

| ACC | $29 X X$ | Accounting Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| LH | 3501 | Soils and Plant Nutrition | 3 | 2 | 4 |
| LH | 3509 | Landscape Design 1 | 2 | 3 | 3 |
| LH | 3523 | Horticulture Entomology | 2 | 2 | 3 |
| LH | 35 XX | Technical Elective | 2 | 2 | 3 |
|  |  |  | 12 | 9 | 16 |

## FOURTH TERM

LH 9225 Cooperative Education
Landscape Hort./Turf Mgt. $1 \quad 40 \quad 2$

ENG 10XX English Elective $\quad 3 \quad 0 \quad 3$
$\begin{array}{llllll}\text { LH } & 3505 & \text { Intro. to Herbaceous Plant Materials } & 2 & 2 & 3\end{array}$
$\begin{array}{llllll}\text { LH } & 3511 & \text { Introduction to Landscape Construction } & 2 & 3 & 3\end{array}$
LH 3520 Horticulture Lab $\quad 0 \quad 3 \quad 1$
$\begin{array}{lllll}\text { LH } 3524 & \text { Plant Pathology } & 2 & 2 & 3\end{array}$

LH 35XX Technical Elective $\quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 11 | 13 | 16 |

## SIXTH TERM

LH 9225 Cooperative Education

| Landscape Hort./Turf Mgt. |  |  |  | 1 |
| :--- | :--- | :--- | :--- | :--- |
| SEVENTH TERM | 40 | 2 |  |  |
| SPE | $102 X$ | Speech Elective | 3 | 0 |
| ECO | $151 X$ | Economics Elective | 3 | 0 |
| OT | 1850 | Introduction to Computer Applications | 3 | 2 |


| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| LH | 3515 | Woody Plant Materials 2 | 2 | 3 | 3 |
| LH | 35 XX | Technical Elective | 2 | 3 | 3 |
|  |  | 15 | 11 | 19 |  |

EIGHTH TERM

| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| LH | 35 XX | Technical Elective | 2 | 3 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| XXX | XXXX | Social Science/Humanities Elective | 3 | 0 | 3 |
|  |  | 16 | 3 | 17 |  |

## NINTH TERM

LH 9225 Cooperative Education
TENTH TERM
LH 9225 Cooperative Education
Landscape Hort./Turf Mgt.
$1 \quad 40 \quad 2$
$140 \frac{2}{110}$
Accounting Elective: ACC 2911, ACC 2924
English Elective: ENG 1003, ENG 1010, ENG 1011
Technical Elective: LH 3506, LH 3507, LH 3513, LH 3516, LH 3517,
LH 3518, LH 3519, LH 3525, LH 3528, LH 3529, LH 3533, LH 3534,
LH 3535, LH 3536, LH 3537, LH 3538, LH 3539, LH 3540, LH 3544,
LH 3546, LH 3547, LH 3548, LH 3550, LH 3552, LH 3554, LH 3556
Speech Elective: SPE 1020, SPE 1024
Economics Elective: ECO 1512, ECO 1513
Social Science/Humanities Elective: any PSY, SOC, GEO, LBR, HST, ECO, SPN
Math Elective: MAT 1161, MAT 1162, or MAT 1171, MAT 1172, or MAT 1191, MAT 1192

## Turfgrass Management Technology (TUR)

The Turfgrass Management major, leading to an Associate of Applied Business degree, concentrates on golf course management, athletic/sports turf management, and professional lawn care. Common course requirements within the Landscape Horticulture Major such as Soils and Plant Nutrition and Basic Landscape Design in addition to math, business, and other basic college requirements prepare students for management positions.

## TURFGRASS MANAGEMENT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit

|  |  | Hours Per <br> Class |  |  | Week <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CIRST TEAit |  |  |  |  |  |
| Hours |  |  |  |  |  |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | $11 \times 2$ | Math Elective | 3 | 2 | 4 |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| LH | 3510 | Small Engine Maintenance \& Repair | 2 | 2 | 3 |
| LH | 3526 | Intro. to Golf and Turf Management | 1 | 1 | 1 |
| LH | 3532 | Landscape Management | 2 | 3 | 3 |
|  |  | 14 | 8 | 17 |  |

THIRD TERM
ENG 10XX English Elective $\quad 3 \quad 0 \quad 3$
MGT 2967 Introduction to Management $\begin{array}{llll}3 & 0 & 3\end{array}$
ACC 29XX Accounting Elective 3003
LH 3501 Soils and Plant Nutrition $\quad 3 \quad 2 \quad 4$

| LH | 3509 | Landscape Design 1 | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |
|  |  | 17 | 5 | 19 |  |

## FOURTH TERM

| LH | 9225 | Cooperative Education <br> Landscape Hort./Turf Mgt. | 1 | 40 | 2 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIFTH TERM |  |  |  |  |  |
| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| LH | 3505 | Intro. to Herbaceous Plant Materials | 2 | 2 | 3 |
| LH | 3511 | Introduction to Landscape Construction | 2 | 3 | 3 |
| LH | 3520 | Horticulture Lab | 0 | 3 | 1 |
| LH | 3537 | Turfgrass Pests | 2 | 2 | 3 |
|  |  | 9 | 10 | 13 |  |

SIXTH TERM

| LH | 9225 | Cooperative Education <br> Landscape Hort./Turf Mgt. | 1 | 40 | 2 |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SEVENTH TERM |  |  |  |  |  |  |  |  |  |
| SPE | $102 X$ | Speech Elective | 3 | 0 | 3 |  |  |  |  |
| ECO | $151 X$ | Economics Elective | 3 | 0 | 3 |  |  |  |  |
| OT | 1850 | Introduction to Computer Applications | 3 | 2 | 4 |  |  |  |  |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |  |  |  |  |
| LH | 3533 | Principles of Irrigation | 2 | 2 | 3 |  |  |  |  |
| LH | 3556 | Advanced Turfgrass Management | 2 | 2 | 3 |  |  |  |  |
|  |  | 15 | 9 | 19 |  |  |  |  |  |
| EIGHTH TERM |  |  |  |  |  |  |  |  |  |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |  |  |  |  |
| LH | 3529 | Landscape Grading, Drainage |  |  |  |  |  |  |  |
|  |  | and Surveying | 2 | 3 | 3 |  |  |  |  |
| LH | 3549 | Pesticide Safety and Application | 2 | 0 | 2 |  |  |  |  |
| LH | 3550 | Golf Course Management | 3 | 2 | 4 |  |  |  |  |
| LH | $355 X$ | Turfgrass Elective | 2 | 2 | 3 |  |  |  |  |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |  |  |  |  |
|  |  |  | 14 | 7 | 17 |  |  |  |  |

## NINTH TERM

| LH | 9225 | Cooperative Education <br> Landscape Hort./Turf Mgt. | 1 | 40 |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
|  |  |  |  |  |  |
| TENTH TERM |  |  |  |  |  |
| LH | 9225 | Cooperative Education <br> Landscape Hort./Turf Mgt. | 1 | 40 |  |
|  |  |  |  | $\frac{2}{110}$ |  |

Accounting Elective: ACC 2911, ACC 2924
Speech Elective: SPE 1020, SPE 1024
Economics Elective: ECO 1512, ECO 1513
English Elective: ENG 1003, ENG 1010, ENG 1011
Social Science Elective: any PSY, SOC, GEO, LBR, HST, ECO, SPN
Math Elective: MAT 1161, MAT 1162, or MAT 1171, MAT 1172, or
MAT 1191, MAT 1192
Turfgrass Elective: LH 3552, LH 3554

## Turfgrass Management Certificate (TURC)

The Turfgrass Management Certificate is best suited for individuals currently employed in positions in turf-related industries who desire credentials in their technical area. The curriculum concentrates on turfgrass management courses and has no cooperative education requirement.

## TURFGRASS MANAGEMENT CERTIFICATE

|  |  | Hours Per Week <br> Class |  |  | Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| MAT | 1161 | Applied Algebra | 3 | 2 | 4 |
| LH | 3508 | Turfgrass Management | 2 | 2 | 3 |
|  |  | 5 | 4 | 7 |  |

## SECOND TERM

| LH | 3502 | Horticulture Science | 2 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| LH | 3526 | Intro. to Golf and Turf Management | 1 | 1 | 1 |
| LH | 3533 | Principles of Irrigation | 2 | 2 | 3 |
|  |  |  | 5 | 5 |  |


| THIRD TERM |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| LH | 3501 | Soils and Plant Nutrition | 3 | 2 |
| LH | 3556 | Advanced Turfgrass Management | 2 | 2 |

Horticulture Elective: LH 3504, LH 3505, LH 3509, LH 3510,
LH 3528, LH 3523, LH 3511, LH 3517, LH 3524, LH 3532
Turfgrass Elective: LH 3554, LH 3550

## Landscape Design Certificate (LDC)

The Landscape Design Certificate offers a concentration in design courses. It is best suited for students with landscape industry backgrounds who wish to enhance their technical landscape drawing skills. This technical focus also includes construction and estimating courses.

## LANDSCAPE DESIGN CERTIFICATE

|  |  |  | Hours Per <br> Class |  | Leek <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| LH | 3504 | Woody Plant Materials 1 | 2 | 3 | 3 |
| LH | 3509 | Landscape Design 1 | 2 | 3 | 3 |
| LH | 3511 | Introduction to Landscape Construction | 2 | 3 | 3 |
| LH | 3513 | Advanced Landscape Construction | 2 | 3 | 3 |
| LH | 3517 | Computer Aided Landscaping Drafting | 2 | 3 | 3 |
| LH | 3518 | Landscape Design 2 | 2 | 3 | 3 |
| LH | 3519 | Landscape Contracts and Specifications | 3 | 0 | 3 |
| LH | 3529 | Landscape Grading, Drainage |  |  |  |
|  |  | and Surveying | 2 | 3 | 3 |
| LH | 3532 | Landscape Management | 2 | 3 | 3 |
| LH | 3533 | Principles of Irrigation | 2 | 2 | 3 |
| LH | 3535 | Woody Plant Materials 3 | 2 | 3 | 3 |
| LH | 3539 | Landscape Design 3 | 2 | 3 | 3 |
| LH | 3546 | Computer Aided Landscape Drafting 2 | 2 | 3 | 3 |
| XXX | XXXX | Landscape Horticulture/Sales Elective | 2 | 3 | 3 |
|  |  |  | 29 | 38 | 42 |
|  |  |  |  |  | 42 |

Landscape Horticulture/Sales Elective: LH 3505, LH 3515, LH 3547,
MKT 1810; others with advisor consent

## Information Management Technologies

Program Chair - Jill Haft
Co-op Coordinator - Adam Waits
Advisors - Connie Crossley, Viola Johnson, Colleen Meyer
The Information Management area offers four degree programs: Executive Assistant, Legal Assistant, Medical Administrative Assistant, Office Management and two certificate programs: Computer Applications and Office Support. The curriculums include not only technical skill development but also courses in business principles and management. Advanced placement is available through testing in selected courses. Grades of "C" or higher are required in all technical courses.

## Executive Assistant Technology (EA)

Executive Assistant training develops competencies in office procedures, information processing, communications, organizational skills, time management, project management, and computer use. Graduates earn an Associate of Applied Business degree and can expect to work as Administrative or Executive Assistants with top-level executives as part of a management team.

## EXECUTIVE ASSISTANT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.


## SIXTH TERM

| OT | 9227 | Cooperative Education- <br> Information Management | 1 | 40 | 2 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| SEVENTH TERM |  |  |  |  |  |
| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| OT | 3023 | Adv. Machine Transcription \& Dictation | 2 | 3 | 3 |
| OT | 3024 | Office Procedures 3 | 2 | 2 | 3 |
| OT | 3068 | Database Management: Access 1 | 2 | 3 | 3 |
|  |  | 19 | 10 | 23 |  |
| EIGHTH TERM |  |  |  |  |  |
| OT | 9227 | Cooperative Education- | 1 | 40 | 2 |
|  | Information Management |  |  |  |  |
| NINTH TERM |  | 3 | 0 | 3 |  |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 4 | 2 | 5 |
| ACC | 2927 | Financial Accounting 2 | 2 | 3 | 3 |
| MGT | 2989 | Customer Service Systems |  |  |  |
| OT | 3092 | Desktop Publishing with | 2 | 2 | 3 |
|  |  | Microsoft Publisher and FrontPage | 17 | 20 |  |

TENTH TERM
BUS 9233 Business Competencies

| 2 | 0 | 2 |
| :---: | :---: | :---: |
| 1 | 20 | 1 |
| 3 | 20 | $\frac{3}{109}$ |

Technical Electives: GC 1423, OT 1864, OT 3064, OT 3066,
OT 3073, OT 3074, OT 3075, OT 3076
English Elective: ENG 1003, ENG 1010, ENG 1011, ENG 1018

## Legal Assistant Technology (LA)

The two-year Legal Assistant program prepares students to perform legal administrative duties for law firms, banks, corporations, and savings and loans. The Legal Assistant program develops competence in word processing, legal terminology, legal office procedures, legal documentation, legal transcription, legal research, time management, and organizational skills. Graduates earn an Associate of Applied Business degree upon successful completion of the program.

## LEGAL ASSISTANT

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TEurs |  |  |  |  |

## SECOND TERM

| OT | 9227 | Cooperative Education- <br> Information Management | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| THIRD TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| OT | 3003 | Document Formatting 2 | 2 | 3 | 3 |
| OT | 3016 | Introduction to Legal Environment | 3 | 0 | 3 |
| OT | 3032 | Office Procedures 2 | 2 | 3 | 3 |
| OT | 3035 | Essential Business Correspondence | 2 | 3 | 3 |
|  |  | 18 | 9 | 21 |  |

## FOURTH TERM

| OT | 9227 | Cooperative Education- <br> Information Management | 1 | 40 | 2 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIFTH TERM |  |  |  |  |  |
| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| OT | 3017 | Legal Formatting | 2 | 3 | 3 |
| OT | 3022 | Proofreading and Editing | 2 | 2 | 3 |
| OT | 3069 | Advanced Microsoft Word | 2 | 3 | 3 |

SIXTH TERM
OT 9227 Cooperative Education-
Information Management $\quad 1 \quad 40 \quad 2$
SEVENTH TERM
ENG 10XX English Elective $\quad 2 \quad 2 \quad 3$
LAW 1830 Legal Research $1 \quad 3 \begin{array}{lll}3\end{array}$
MKT 2901 Principles of Marketing $1 \quad 3 \begin{array}{llll} & 0 & 3\end{array}$
ACC 2927 Financial Accounting $2 \quad 4 \quad 2 \quad 5$

OT 3018 Legal Transcription $\quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 14 | 7 | 17 |

\left.| EIGHTH TERM |  |  |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| OT | 9227 | Cooperative Education- |  |  |  |  |  |
|  |  | Information Management |  |  |  |  |  |$\right)$

English Electives: ENG 1003, ENG 1011, ENG 1018
Technical Electives: GC 1423, OT 1864, OT 3036, OT 3064, OT 3066, OT 3068, OT 3073, OT 3074, OT 3075, OT 3076, OT 3092

## Medical Administrative Assistant Technology (MAA)

Ohio Board of Regents approval for the Medical Administrative Assistant Technology program is pending.
The Medical Administrative Assistant program prepares students to perform administrative duties for medical offices and healthcare facilities. Students will develop competencies in medical office procedures, organizational skills, time management, communications, medical terminology, application software, and coding. Graduates earn an Associate of Applied Business degree and can expect to work as medical administrative assistants or as medical office managers.

## MEDICAL ADMINISTRATIVE ASSISTANT TECHNOLOGY

Program prerequisites: Keyboarding skill 30 wpm minimum or take OT 3007.
All degree-seeking students must complete course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| OT | 1850 | Introduction to Computer Applications | 3 | 2 | 4 |
| MA | 4200 | Medical Office Practice | 3 | 0 | 3 |
| MCH | 4806 | Medical Terminology 1 | 3 | 0 | 3 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
|  |  |  | 16 | 2 | 17 |

## SECOND TERM

| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| OT | 3021 | Office Procedures 1 | 2 | 3 | 3 |
| OT | 3058 | Microsoft Word for Windows | 2 | 3 | 3 |
| HIM | 4407 | Health Record Content and Format | 2 | 2 | 3 |
| HIM | 4415 | Legal Aspects of Health Information | 3 | 0 | 3 |
| MCH | 4807 | Medical Terminology 2 | 3 | 0 | 3 |
|  |  | 15 | 8 | 18 |  |
| THIRD TERM |  |  |  |  |  |
| OT | 3035 | Essential Business Correspondence | 2 | 3 | 3 |
| OT | 9227 | Cooperative Education- |  |  |  |
|  |  | Information Management | 1 | 40 | 2 |
|  |  | 3 | 43 | 5 |  |

FOURTH TERM
HIM 1000 Medical Office ICD-9-CM Coding $\quad 2 \quad 3 \quad 3$
ENG 1002 English Composition 2 3003

| MAT | 1123 | Business Mathematics 3 | 3 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| OT | 3003 | Document Formatting 2 | 2 | 3 | 3 |
|  |  |  | 16 | 10 | 20 |
| FIFTH TERM |  |  |  |  |  |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| OT | 9227 | Cooperative Education- |  |  |  |
|  |  | Information Management | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |
| SIXTH TERM |  |  |  |  |  |
| HIM | 1001 | Medical Office Basic CPT Coding | 2 | 3 | 3 |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| OT | 3005 | Medical Formatting and Transcription | 2 | 3 | 3 |
| OT | 3093 | Workplace Technologies | 2 | 2 | 3 |
|  |  |  | 15 | 8 | 18 |
| SEVENTH TERM |  |  |  |  |  |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| OT | 9227 | Cooperative Education- |  |  |  |
|  |  | Information Management | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |
| EIGHTH TERM |  |  |  |  |  |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
| OT | 30XX | Technical Elective | 2 | 3 | 3 |
|  |  |  | 13 | 6 | 15 |
| NINTH TERM |  |  |  |  |  |
| OT | 9227 | Cooperative Education- |  |  |  |
|  |  | Information Management | 1 | 40 | 2 |
|  |  |  | 1 | 40 | 2 |
| TENTH TERM |  |  |  |  |  |
| OT | 9227 | Cooperative Education- |  |  |  |
|  |  | Information Management | 1 | 40 | 2 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
|  |  |  | 3 | 40 | 4 |
|  |  |  |  |  | $\overline{109}$ |

English Elective: ENG 1003, ENG 1009, ENG 1011, ENG 1018 Technical Elective: OT 3036, OT 3064, OT 3068 or other electives permitted with advisor consent.

## Office Management Technology (OM)

The Office Management program develops the fundamental skills necessary for supervision, office management, information processing, accounting, spreadsheet organization, and other techniques that provide the base for a range of office jobs. Graduates earn an Associate of Applied Business degree and can expect to work in positions that assist key personnel with the timely and efficient flow of office functions.

## OFFICE MANAGEMENT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab | Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| MGT | 2965 | Principles of Management 1 | 2 | 3 | 3 |
| OT | 3021 | Office Procedures 1 | 2 | 3 | 3 |
| OT | 3058 | Microsoft Word for Windows | 2 | 3 | 3 |
| OT | 3095 | Intro. to Computers, Windows, Internet | 2 | 1 | 0 |
| BT | 9200 | Professional Practices | 16 | 9 | 19 |

## SECOND TERM

| OT | 9227 | Cooperative Education- <br> Information Management | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| THIRD TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| OT | 3032 | Office Procedures 2 | 2 | 3 | 3 |
| OT | 3035 | Essential Business Correspondence | 2 | 3 | 3 |

## FOURTH TERM

OT 9227 Cooperative Education-

| Information Management |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| FIFTH TERM |  | 1 | 40 | 2 |
| MAT | 1123 | Business Mathematics 3 |  |  |
| LAW | 1823 | Business Law 1 | 3 | 0 |
| ACC | 2926 | Financial Accounting 1 | 3 | 0 |
| OT | 3003 | Document Formatting 2 | 4 | 2 |
| OT | 3022 | Proofreading and Editing | 2 | 3 |
| OT | 3064 | Introduction to PowerPoint | 2 | 2 |
| OT | 2 | 3 |  |  |
|  |  | 16 | 10 | 20 |

## SIXTH TERM

OT 9227 Cooperative Education-

| Information Management |  |  |  | 1 |
| :--- | :--- | :---: | :---: | :---: |
| SEVENTH TERM | 40 | 2 |  |  |
| SPE | 1020 | Public Speaking | 3 | 0 |
| ENG | $10 X X$ | English Elective | 3 |  |
| PSY | 1505 | Introduction to Psychology 1 | 0 | 3 |
| ACC | 2927 | Financial Accounting 2 | 3 | 0 |
| OT | 3024 | Office Procedures 3 | 4 | 2 |
| 5 |  |  |  |  |
| OT | 3068 | Database Management: Access 1 | 2 | 2 |
| OT | 3070 | Administrative Office Management 1 | 2 | 3 |
|  |  | 3 | 0 | 3 |
|  |  | 20 | 7 | 23 |

## EIGHTH TERM

OT 9247 Cooperative Education-

| Information Management-Parallel |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| NINTH TERM | 1 | 20 | 1 |  |
| ECO | 1512 | Microeconomics |  |  |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 |
| 3 |  |  |  |  |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 |
| 3 |  |  |  |  |
| MGT | 2989 | Customer Service Systems | 3 | 0 |
| OT | 3093 | Workplace Technologies | 2 | 3 |
| 3 |  |  |  |  |
| XXX | XXXX | Social Science Elective | 2 | 2 |

Technical Elective: GC 1423, OT 1864, OT 3036, OT 3066, OT 3069, OT 3092, OT 3073, OT 3074, OT 3075
English Elective: ENG 1003, ENG 1010, ENG 1011, ENG 1018

## Computer Applications Certificate (CAPC)

Students in any major who wish to complement their degree program with computer skills and add to their prospects for employment can enroll in the Computer Applications Certificate along with their degree program.
The certificate contains a core of 27 credit hours that provide instruction in Microsoft software programs and nine elective credits from a published list. Advanced placement credit for this certificate requires Microsoft Office Specialist certification.

## COMPUTER APPLICATIONS CERTIFICATE

Prerequisite for admission to certificate program: OT 3007 or 30 wpm . Hours Per Week Credit Class Lab Hours

## FIRST TERM

OT 3058 Microsoft Word for Windows 2

OT 3095 Intro. to Computers, Windows, Internet | 2 | 3 | 3 |
| :---: | :---: | :---: |
| 4 | 6 | 6 |

## SECOND TERM

OT 1863 Electronic Spreadsheets (Excel) $2 \begin{array}{lll}2 & 3\end{array}$

OT 3069 Advanced Microsoft Word $\quad$| 2 | 3 | 3 |
| :--- | :--- | :--- |
| 4 | 5 | 6 |

THIRD TERM

| OT | 1864 | Adv. Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| OT | 3064 | Introduction to PowerPoint | 2 | 3 | 3 |
| OT | 3068 | Database Management: Access 1 | 2 | 3 | 3 |
|  |  |  | 6 | 9 | 9 |

FOURTH TERM
OT 3074 Database Management: Access $2 \quad 2 \quad 3 \quad 3$
OT XXXX Technical Elective 223

OT XXXX Technical Elective $\quad$| 2 | 3 | 3 |
| :--- | :--- | :--- |
|  | 6 | 9 |

## FIFTH TERM

OT 3066 Integrated Information Processing $\quad 2 \begin{array}{lll}2 & 3 & 3\end{array}$
OT XXXX Technical Elective

| 2 | 3 | 3 |
| :--- | :--- | :--- |
| 4 | 6 | $\frac{6}{36}$ |

*Classes available online.
Advanced Standing by MOUS Certification only.
Technical Electives: OT 3036, GC 1423, OT 3035, OT 3002, OT 3003,
ACC 2947, IT 5291, IT 5231, IT 5456, OT 3092, OT 1850.

## Office Support Certificate (OSCP)

Students who wish to develop marketable office skills in a short period of time may be interested in the Office Support Certificate. Students learn office procedures, grammar and punctuation, document formatting, and computer skills.

## OFFICE SUPPORT CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Lab |  |  |  |  | | Credit |
| :---: |
| Hours |

## SECOND TERM

OT 3032 Office Procedures 2 $\quad 2 \quad 3 \quad 3$

OT 3035 Essential Business Correspondence | 2 | 3 | 3 |
| ---: | :--- | :--- |

## THIRD TERM

OT 3058 Microsoft Word for Windows $\quad 2 \quad 3 \quad 3$

OT XXXX Technical Elective $\quad$| 2 | 3 | 3 |
| :--- | :--- | :--- |
| 4 | 6 | 6 |

## FOURTH TERM

OT 3022 Proofreading and Editing $\quad 2 \quad 2 \quad 3$

OT 3024 Office Procedures $3 \quad$| 2 | 2 | 3 |
| :--- | :--- | :--- |
| 4 | 4 | 6 |

FIFTH TERM

| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| OT | 3068 | Database Management: Access 1 | 2 | 3 | 3 |
|  |  | 4 | 5 | 6 |  |

## SIXTH TERM

OT XXXX Technical Elective

| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 2 | 3 | 3 |
| 4 | 6 | $\frac{6}{36}$ |

If keyboarding skill is less than 30 wpm, OT 3007, OT 3006 and OT 3002 may be necessary as prerequisites to OT 3003.
Technical Elective: LAW 1830, OT 3016, OT 3017, OT 3018,
OT 3019, OT 3023, OT 3036, OT 3064, OT 3066, OT 3069,
OT 3070, OT 3073, OT 3074, OT 3075, OT 3076, OT 3092, OT 3095

## Real Estate Technology (RE)

Program Chairs - Carolyn Waits, Jim Wood Co-op Coordinator - Kelly Harper
Advisor - Jim Wood
The Real Estate Technology program prepares students for careers in residential and commercial real estate sales, management, or financing. The program provides an educational foundation that satisfies the requirements for licensing and future requirements for becoming a real estate broker. In addition to meeting the pre-licensing requirements for real estate sales, students learn about residential and commercial property management, property appraisal, marketing, management, and the human relations and customer service systems essential for business success. Students gain hands-on experience with co-op employers such as ReMax Premier, Century 21, and Hart Realty. Graduates earn an Associate of Applied Business degree and may obtain employment in local and national real estate firms, financial institutions, insurance companies, and many major corporations.

## REAL ESTATE TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class <br> Lab |  | Credit <br> Hours |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 11 XX | Mathematics Elective | 3 | 0 | 3 |
| RE | 2951 | Real Estate Principles \& Practices | 4 | 0 | 4 |
| RE | 2953 | Real Estate Law | 4 | 0 | 4 |
| BT | 9200 | Professional Practices | 1 | 0 | 1 |
| OT | XXXX | Computer Elective | 2 | 3 | 3 |
|  |  | 17 | 3 | 18 |  |

## SECOND TERM

RE 9229 Cooperative Education

| Real Estate/Property Mgt. |  |  |  | 1 | 40 |
| :--- | :--- | :---: | :---: | :---: | :---: |
| THIRD TERM | 2 |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | $102 X$ | Speech Elective | 3 | 0 | 3 |
| MAT | 11 XX | Mathematics Elective | 3 | 0 | 3 |
| OT | 1863 | Electronic Spreadsheets (Excel) | 2 | 2 | 3 |
| RE | 2954 | Real Estate Finance and Appraisal | 4 | 0 | 4 |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |
|  |  | 18 | 2 | 19 |  |

## FOURTH TERM

| RE | 9229 | Cooperative Education <br> Real Estate/Property Mgt. | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FIFTH TERM |  |  |  |  |  |
| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| MAT | 11 XX | Mathematics Elective | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| RE | 2956 | Appraising Income Properties | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
|  |  | 19 | 2 | 20 |  |

## SIXTH TERM

RE 9229 Cooperative Education Real Estate/Property Mgt. 14 | 40 |
| :--- |

## SEVENTH TERM

ECO 151X Economics Elective
303

| FIN | 1804 | Risk \& Insurance | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MKT | 2902 | Principles of Marketing 2 | 3 | 0 | 3 |
| ACC | 2927 | Financial Accounting 2 | 4 | 2 | 5 |
| FIN | 2960 | Business Finance | 3 | 0 | 3 |
| RE | $29 X X$ | Property Management Elective | 3 | 0 | 3 |
| XXX | XXXX | Business Elective | 3 | 0 | 3 |
|  |  | 22 | 2 | 23 |  |

## EIGHTH TERM

RE 9229 Cooperative Education
Real Estate/Property Mgt. $1 \quad 40 \quad 2$
NINTH TERM

| MKT | 1810 | Principles of Sales | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| RE | 2932 | Residential Property Management | 3 | 0 | 3 |
| RE | 2958 | Real Estate Investing | 3 | 0 | 3 |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
| BUS | 9233 | Business Competencies | 2 | 0 | 2 |
| XXX | XXXX | Social Science Elective | 3 | 0 | 3 |
|  |  | 19 | 3 | 20 |  |

## TENTH TERM

RE 9229 Cooperative Education Real Estate/Property Mgt. $140 \quad \frac{2}{110}$

Computer Elective: OT 1850, OT 3036, OT 3058, OT 3064, OT 3068,

## OT 1864

Math Electives: Minimum of 9 credit hours: MAT 1121, MAT 1122, MAT 1123 or MAT 1151, MAT 1111, MAT 1112
Speech Elective: SPE 1020, SPE 1024
Social Science Elective: PSY 1502, PSY 1505, SOC 1521, SOC 1524, LBR 1535, any POL
English Elective: ENG 1003, ENG 1010
Economics Elective: ECO 1512, ECO 1513, ECO 1514
Business Elective: LAW 1824, BUS 2973, MKT 1810, MGT 1832,
MGT 2971, RE 2931, RE 2933, RE 2959
Property Management Elective: RE 2931, RE 2933

## Center for Innovative Technologies

Main Phone Number: (513) 569-1743
The Center for Innovative Technologies encompasses Cincinnati State's 24 academic programs in information and engineering technologies. Cincinnati State has been recognized nationally and internationally for over 30 years as a center of excellence in Engineering Technologies education, and the newer Information Technologies programs have served as regional educational models for innovation.
The academic programs within the Center for Innovative Technologies are organized into eight departments:

- Chemical and Environmental Engineering Technologies
- Civil Engineering Technologies
- Electrical Engineering Technologies
- Information Services and Support
- Mechanical Engineering Technologies
- Multimedia Information Design
- Network Systems
- Programming and Software Development

All of the associate's degree programs offered by the Center for Innovative Technologies feature:

- Faculty with professional experience in their areas of instruction, who also are advisors to students throughout their college experience.
- Technical coursework that blends basic theory (including skills in mathematics and science, as applicable) with extensive hands-on laboratory practice.
- Foundation academic skills courses in written and oral communication, humanities, and social sciences.
- Ease of transfer to baccalaureate degree programs.
- Cooperative education work experience. The close tie with industry created by the cooperative education component ensures all programs remain technically current, and provides students with practical workplace knowledge and experience prior to graduation.
The Center for Innovative Technologies is committed to providing its graduates with the competencies needed to compete successfully for jobs in a technology-driven workplace, and to continue successfully in additional educational pursuits. The Center's programs offer students a range of learning opportunities, and the faculty and staff of the Center continuously work to identify emerging technologies and address changing industry requirements for qualified employees.
The Engineering Technologies programs within the Center for Innovative Technologies have established as their mission to serve students by promoting excellence in engineering technologies through professional instruction, cooperative education, and advising. Several of these programs have earned accreditation through the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700.
The Center for Innovative Technologies also offers several certificate programs that address specific technical skills. Certificates have fewer course requirements than an associate's degree.
The Center for Innovative Technologies also provides an associate's degree program in Aviation Maintenance Technology, which is approved by the Federal Aviation Administration, along with related certificate programs. Technical coursework is offered exclusively at the Cincinnati West Airport site in Harrison, Ohio.


## Cooperative Education

The cooperative education experience is a cornerstone of the educational process in the Center for Innovative Technologies.
All students enrolled in associate's degree programs are required to participate in the cooperative education program. Most students complete this requirement through on-site cooperative education assignments. Students may earn credit by alternating full-time terms in the classroom with full-time terms of cooperative education, typically over a 10-term period. In a few academic programs, where competition for entry-level assignments is particularly strong, students may have opportunities to earn credit by participating in unpaid internships.
Students may be able to substitute appropriate academic courses or previous related work experience for cooperative education employment, with prior approval from the appropriate program co-op coordinator.
For eligibility requirements, co-op registration policies, and other issues related to cooperative education, please refer to the "Cooperative Education Program" section of the catalog.

## Entrance Competencies

In order to ensure a high degree of success in academic studies in engineering and information technologies, entering students
must meet established academic levels in mathematics, communication skills, and reading comprehension. To aid in determining these levels, entering students are required to take COMPASS, the college admissions/placement test. If testing and previous academic background indicate that a student has not reached the necessary preparatory level, a divisional advisor will assist in preparing a program of classes to help the student reach those levels. Preparatory classes are available on a year-round basis.
Students entering most academic programs of the Center for Innovative Technologies must demonstrate competence with commonly-used software applications and with basic Internet operations. Students may be asked demonstrate these competencies through standardized skills assessment tests or by completing prerequisite course if necessary. Program advisors assist students in determining whether they meet minimum competencies.
All students enrolled in associate's degree programs in the Center for Innovative Technologies must complete the college orientation course FYE 9002, College Survival Skills, within the first 18 credit hours taken at Cincinnati State. Full-time students who follow the published sequence of courses can complete the associate's degree programs in two years.

## Transfer to Baccalaureate Programs

Many of the degree programs offered by the Center for Innovative Technologies have established articulation agreements to ease transfer of credits earned at Cincinnati State to baccalaureate programs at various colleges and universities. Agreements are in place with Miami University, the University of Cincinnati, Northern Kentucky University, the University of Findlay, Embry-Riddle Aeronautical University, the University of Toledo, and Wilmington College, among others. Each of these agreements varies in content. Interested students should meet with their program advisor as early as possible to review the details of possible transfer arrangements.
The articulation agreement with the University of Toledo allows graduates of four Cincinnati State programs to complete a Bachelor of Computer Science and Engineering Technology degree on Cincinnati State's campus. These programs are: Electro-Mechanical Engineering Technology, Electronics Engineering Technology, Biomedical Equipment \& Information Systems Technology, and Computer Network Engineering Technology.

## Transfer Module

The Ohio Board of Regents developed the transfer module to facilitate transfer of credits from one Ohio public college or university to another. The transfer module contains 54 to 60 quarter hours of course credits in the areas of English, mathematics, arts and humanities, social and behavioral sciences, natural and physical sciences, and interdisciplinary studies. A transfer module completed at one college or university automatically meets the requirements for the transfer module at another college or university once the student is admitted. For additional information, see the "State of Ohio Policy for Institutional Transfer" and the "Transfer Module" sections of the College catalog.
Associate's degree programs in the Center for Innovative Technologies contain in their curriculums many of the required courses for the Cincinnati State Transfer Module. Students who wish to complete the transfer module should schedule the additional courses at their convenience. Students who transfer to an Ohio public university for baccalaureate degrees will find that the Cincinnati State Associate of Applied Science degree, com-
bined with a transfer module showing grades of " C " or higher, receives preferential consideration at the receiving institution. Additionally, the transfer process has been streamlined for graduates of some Center for Innovative Technologies programs by the articulation agreements described above.

## Chemical and Environmental Engineering Technologies Department

Chemistry plays a major role in the advancement of society and in making our lives longer, healthier, more comfortable, and more enjoyable. Without chemistry there would be no pharmaceutical drugs, no computers, no automobiles, no TVs, no DVDs, no lights, and no synthetic fibers. However, despite the benefits resulting from these chemical advances, large amounts of toxic and corrosive chemicals have been dispersed into the environment. It is not just the chemical industry, or even industry as a whole that has emitted troublesome substances into the air, water, and soil. Since the industrial revolution, increases in population and affluence have overloaded our atmosphere with carbon dioxide and toxic air pollutants, our waters with sewage, and our soil with garbage.
Society has become increasingly aware of the need for responsible stewardship of the earth. This has resulted in a growing need for environmental and chemical professionals who not only develop and use technology, but who do so in an environmentally responsible manner, and who help correct the problems created by past practices.
The programs in the Chemical and Environmental Technology Department are designed to develop professionals capable of conducting chemical analysis and promoting new technologies while preserving and improving environmental quality.
The Chemical and Environmental Engineering Technologies Department offers degree programs in Chemical Technology and Environmental Engineering Technology, with an additional major in Environmental Engineering Technology - Water and Wastewater. The department also offers a certificate program in Environmental Safety and Security. These certificate courses are a component of the Safety and Security Management degree program that is offered through the Health and Public Safety Division.

## Chemical Technology (CMT)

Program Chair - Martha Brosz

## Co-op Coordinator - Sue Dolan

The Chemical Technology Program prepares students for employment in industry or government laboratories performing research and analytical testing on specific products and processes. Graduates may fulfill a variety of jobs such as instrumental analysis of pharmaceuticals and other consumer products, testing polymer properties, or performing chemical analysis of forensics samples.
Because the Chemical Technology curriculum has ample science requirements, including chemistry and physics, students who wish to earn a Bachelor of Science degree from a university may find that the CMT curriculum serves their transfer needs well. Students may also select electives from biology and environmental courses if they choose to pursue a career or an additional degree in biochemistry/biotechnology or environmental science.

## CHEMICAL TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRSTrs |  |  |  |  |  |

## SECOND TERM

CMT 6618 Basic Practices for

| ET 9400 | Chemical Laboratory Technicians | 3 | 0 | 3 |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Cooperative Education - |  |  |  |  |
| Engineering Technologies (Alternating) |  |  |  |  | | 1 | 40 | 2 |  |
| :--- | :--- | :--- | :--- |
|  |  | 40 | 40 |

THIRD TERM

| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 11 XX | Algebra Elective | 4 | 0 | 4 |
| PHY | 22 XX | Physics Elective 1 | 3 | 2 | 4 |
| CMT | 6621 | Chemistry 2 and Quantitative Analysis | 4 | 4 | 6 |
|  |  | 14 | 6 | 17 |  |
| FOURTH TERM |  |  |  |  |  |
| CHE | 2232 | Fundamentals of Organic Chemistry | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 43 | 6 |  |

FIFTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHY | $22 X X$ | Physics Elective 2 | 3 | 2 | 4 |
| CMT | 6631 | Chemistry 3 \& Quantitative Analysis | 4 | 4 | 6 |
| XXX | XXXX | Technical Elective 1 | 2 | 3 | 3 |
|  |  | 12 | 9 | 16 |  |
| SIXTH TERM |  |  |  |  |  |
| PHY | $22 X X$ | Physics Elective 3 | 2 | 4 |  |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 42 | 6 |  |

## SEVENTH TERM

| SPE | $102 X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1112 | Statistics 2 | 3 | 0 | 3 |
| CMT | 6641 | Instrumental Chemical Analysis 1: |  |  |  |
|  |  | Spectroscopy | 3 | 3 | 4 |
| XXX | XXXX | Technical Elective 2 | 2 | 3 | 3 |
| XXX | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
|  |  | 14 | 6 | 16 |  |

## EIGHTH TERM

| CMT | 6651 | Instrumental Chemical Analysis 2: |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Chromatography | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 43 | 6 |  |

NINTH TERM

| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ECO | 151 X | Economics Elective | 3 | 0 | 3 |
| CMT | 6649 | Chemical Technology Capstone | 2 | 3 | 3 |
| XXX | XXXX | Technical Elective 3 | 2 | 3 | 3 |
| XXX | XXXX | Technical Elective 4 | 2 | 3 | 3 |

## TENTH TERM

ET 9400 Cooperative Education -
Engineering Technologies (Alternating) $1 \begin{array}{llll}40 & 2\end{array}$

XXX XXXX Humanities/Social Science Elective | 3 | 0 | 3 |
| :---: | :---: | :---: |
|  | 40 | $\frac{5}{109}$ |

Technical Electives: Choose 12 credit hours of Technical Electives from the following concentrations.
Environmental Engineering Technology: EVET 7607, EVET 7612,

EVET 7616, EVET 7646, EVET 7671, EVET 7676, and EVET 7677
Organic Chemistry: CHE 2281, CHE 2282, CHE 2283, CHE 2284, CHE 2285, and CHE 2286
Biology, Biochemistry: BIO 4009, BIO 4081, BIO 4082, BIO 4083, and CHE 2233
Plastics: MET 7111, MET 7220, MET 7230, MET 7240
Biotechnology, Chemical Engineering Technology, and Food Science electives: See Advisor.
Physics Electives 1, 2 and 3: Choose one of the following blocks:
Calculus-based Physics: PHY 2295, PHY 2296, PHY 2297
Algebra-based Physics: PHY 2291, PHY 2292, PHY 2293
Algebra Elective: MAT 1152, MAT 1192
Speech Elective: SPE 1020, SPE 1024
Humanities/Social Science Elective: any PSY, SOC, HST, PHI, ART, MUS, THE, CULT. Students pursuing Forensic Science choose from CRI courses.
English Elective: ENG 1003, ENG 1010, ENG 1019
Economics Elective: any ECO

## Environmental Engineering Technology (EVET)

Program Chair - Ann Gunkel
Co-op Coordinator - Kathy McClusky
Advisor - Ann Fallon
The Environmental Engineering Technology program prepares its graduates to successfully enter and pursue baccalaureate degrees and to enter and advance professionally through technical and mid-management positions in local industry. Graduates are prepared to effectively sample, monitor, test, and evaluate environmental media and to effectively conduct assessments, minimize and treat waste, and ensure compliance with environmental regulations.
In the program, students gain skills in key environmental areas which include collecting soil and water samples, air monitoring, managing cleanup activities, complying with regulations, making recommendations concerning solid and hazardous waste management, and performing laboratory testing. Graduates earn an Associate of Applied Science degree and are prepared to enter positions in environmental restoration sites, government agencies, laboratories, consulting firms, parks and forest services, conservation districts, and local industries. All curriculum courses meet the Ohio EPA requirements for license renewal except ET 9400.
The Environmental Engineering Technology program is accredited by Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700.

## ENVIRONMENTAL ENGINEERING TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  |  | Hours Per Week |  | Credit |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Class | Lab |  |
| FIRST TERM |  |  |  |  |  |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| EVET | 7607 | Environmental Sampling | 2 | 3 | 3 |
| EVS | 7622 | Environmental Science: |  |  |  |
|  |  | Conservation and Clean-up | 3 | 2 | 4 |
| EVET | 7670 | Regulations \& Permits | 2 | 3 | 3 |
|  |  |  | 13 | 13 | 18 |

SECOND TERM

| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CHE | 2232 | Fundamentals of Organic Chemistry | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 7 | 43 | 9 |  |

THIRD TERM

| MAT | 11 XX | Algebra Elective | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EVET | 7613 | Environmental Surveying \& Drafting | 3 | 3 | 4 |
| EVET | 7616 | Environmental Chemistry | 2 | 3 | 3 |
| EVS | 7623 | Environmental Geology | 3 | 2 | 4 |
| EVET | 7675 | Solid Waste Management | 2 | 3 | 3 |
|  |  | 14 | 11 |  |  |


| FOURTH TERM |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| SPE | $102 X$ | Speech Elective | 3 | 0 |
| PHY | 2291 | Physics 1 <br> (Algebra and Trigonometry Based) | 3 | 2 |
| ET | 9400 | Cooperative Education - <br> Engineering Technologies (Alternating) | 1 | 40 |
|  |  | 7 | 42 | 9 |

FIFTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MAT | 11XX | Calculus Elective | 4 | 0 | 4 |
| CULT/ |  |  |  |  |  |
| PHI | 16XX | Social Science Elective 1 | 3 | 0 | 3 |
| EVET | 7676 | Hazardous Waste Management | 2 | 3 | 3 |
| CET | 7935 | Introduction to CAD (CET) | 2 | 3 | 3 |
|  |  |  | 14 | 6 | 16 |
| SIXTH TERM |  |  |  |  |  |
| EVET | 7605 | Environmental Statistics | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 42 | 6 |

## SEVENTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| EVET | 7612 | Environmental Microbiology | 3 | 3 | 4 |
| EVET | 7614 | Basic Mechanics of Fluids | 3 | 3 | 4 |
| EVET | 7646 | Water \& Wastewater Technology | 3 | 2 | 4 |
| EVET | 7671 | Air Pollution Control | 3 | 3 | 4 |
|  |  | 18 | 11 | 22 |  |

EIGHTH TERM

| PHY | 2292 | Physics 2 <br> (Algebra and Trigonometry Based) | 3 | 2 | 4 |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| ET | 9400 | Cooperative Education - <br> Engineering Technologies (Alternating) | $\begin{array}{llll}1 & 40 & 2 \\$ | 42 | 42 | 6\end{array}$)$ |

## NINTH TERM

| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHY | 2293 | Physics 3 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EVET | 7677 | Treatment Technologies | 2 | 3 | 3 |
|  |  | 8 | 5 | 10 |  |

## TENTH TERM

ET 9400 Cooperative Education Engineering Technologies (Alternating) 14040
XXX XXXX Social Science Elective

| 1 | 40 | 2 |
| :---: | :---: | :---: |
| 3 | 0 | 3 |
| 4 | 40 | $\frac{5}{119}$ |

Technical Elective: any EVET, EVS, CET. Other courses with program chair consent.
Social Science Elective 1: CULT 1648, PHI 1625
Social Science Elective 2: any PSY, SOC, HST, PHI
Speech Elective: SPE 1020, SPE 1024
Algebra and Calculus Electives: MAT 1192 or MAT 1173 and
MAT 1193; MAT 1152 and MAT 1154
English Elective: ENG 1010, ENG 1003
Physics: PHY 2295, PHY 2296, PHY 2297 may be substituted for
PHY 2291, PHY 2292, PHY 2293

## Water and Wastewater Major (EVETW)

The Environmental Engineering Technology - Water and Wastewater program prepares its graduates to assist in the design, operation, and maintenance of water and wastewater treatment facilities.
The Water and Wastewater major emphasizes water and wastewater treatment in addition to the operation and design of these facilities. Courses focus on biological as well as physicalchemical treatment processes, collection and distribution systems, calculations for water and wastewater personnel, safety, statistics, quality assurance/quality control, and supervisory management. These courses assist in preparation for certification exams and meet continuing education requirements for the renewal of state operator licenses. All curriculum courses meet the Ohio EPA requirements for license renewal except ET 9400. Graduates earn an Associate of Applied Science degree.
The Environmental Engineering Technology-Water and Wastewater Major is accredited by Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700.

## ENVIRONMENTAL ENGINEERING TECHNOLOGY WATER AND WASTEWATER MAJOR

All degree-seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at
Cincinnati State.


## THIRD TERM

| MAT | 11 XX | Algebra Elective | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHY | 2291 | Physics 1 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EVET | 7613 | Environmental Surveying \& Drafting | 3 | 3 | 4 |
| EVET | 7616 | Environmental Chemistry | 2 | 3 | 3 |
| EVET | 7646 | Water \& Wastewater Technology | 3 | 2 | 4 |
|  |  | 15 | 10 | 19 |  |

## FOURTH TERM



## FIFTH TERM

ENG 1002 English Composition 2 $\quad 3 \quad 0 \quad 3$
SPE 10XX Speech Elective $\quad 3 \quad 0 \begin{array}{lll}3\end{array}$
$\begin{array}{lllll}\text { MAT } 11 \text { XX } & \text { Calculus Elective } & 4 & 0 & 4\end{array}$
CULT/
$\begin{array}{llllll}\text { PHI 16XX } & \text { Social Science Elective 1 } & 3 & 0 & 3\end{array}$
EVET 7648 Utilities Safety \& Security $\quad 3 \quad 2 \begin{array}{lll}4\end{array}$

CET 7935 Introduction to CAD (CET) | 2 | 3 | 3 |
| :---: | :---: | :---: |
|  | 18 | 5 |

## SIXTH TERM

| EVET | 7605 | Environmental Statistics | 3 | 2 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ET | 9400 | Cooperative Education - | Engineering Technologies (Alternating) | 1 | 40 |
|  |  | 4 | 42 | 6 |  |

## SEVENTH TERM

| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHY | 2292 | Physics 2 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EVET | 7612 | Environmental Microbiology | 3 | 3 | 4 |
| EVET | 7614 | Basic Mechanics of Fluids | 3 | 3 | 4 |
|  |  | 12 | 8 | 15 |  |
| EIGHTH TERM | 2 | 3 | 3 |  |  |
| EVET | 7647 | Collection \& Distribution Systems |  |  |  |
| ET | 9400 | Cooperative Education - |  |  |  |
|  | Engineering Technologies (Alternating) | 1 | 40 | 2 |  |
|  |  | 3 | 43 | 5 |  |

## NINTH TERM

ECO 1513 Macroeconomics 3003

PHY 2293 Physics 3
(Algebra and Trigonometry Based) $3 \quad 2 \quad 4$
EVET 7677 Treatment Technologies $\quad 2 \quad 3 \quad 3$
EVET 76XX Technical Elective $\quad 2 \quad 3 \quad 3$

XXX $\quad$ XXXX $\quad$ Social Science Elective $2 \quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
|  |  | 13 |

TENTH TERM
EVET 760X Operations of Treatment Plants Elective $\begin{array}{lllll} & 3 & 2 & 4\end{array}$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- |
| 4 | 42 | $\frac{6}{119}$ |

All curriculum courses meet the Ohio EPA requirements for license renewal except PHI 1625 and ET 9400.
Calculations for Operators Elective: EVET 7643 or EVET 7644
Operations of Treatment Plants Elective: EVET 7603 or EVET 7604
Algebra and Calculus Electives: MAT 1192 or MAT 1173 and
MAT 1193; MAT 1152 and MAT 1154
Social Science Elective 1: CULT 1648, PHI 1625
Social Science Elective 2: any PSY, SOC, HST, PHI
Technical Elective: any EVET, EVS, CET Other courses with program chair consent
Speech Electives: SPE 1020, SPE 1024
Physics: PHY 2295, PHY 2296, PHY 2297 may be substituted for PHY 2291, PHY 2292, PHY 2293
English Elective: ENG 1010, ENG 1003

## Environmental Safety and Security Certificate (EVETSC)

This certificate develops skills that can be utilized in various fields associated with protecting the nation during natural disasters and in the event of terrorist or wartime attack. These careers fall under the areas of disaster preparedness, utilities safety and security, transportation safety and security, law enforcement, and research. Additionally, this certificate meets needs of business, government, and educational leaders to prepare staff to ensure the safety of their personnel.

## ENVIRONMENTAL SAFETY AND SECURITY CERTIFICATE

|  |  | Hours Per Week <br> Class | Credit <br> Hours |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EVET | 7607 | Environmental Sampling | 2 | 3 | 3 |
| EVET | 7648 | Utilities Safety and Security | 3 | 2 | 4 |
| EVET | 7672 | Advanced Sampling \& Analysis | 2 | 3 | 3 |
| EVET | 7676 | Hazardous Waste Management | 2 | 3 | 3 |
| EVET | 7681 | Adv. Environmental Risk Assessment | 3 | 3 | 4 |

EVET 7682 Materials Transportation
303
EVET 7683 Environmental Impact of Weapons of Mass Destruction

| 2 | 2 | 3 |
| :---: | :---: | :---: |
| 17 | 16 | $\frac{23}{23}$ |

## Civil Engineering Technologies Department

Program Chair - Tom Burns, P.E.
Co-op Coordinator - Noelle Grome
Advisors - George Armstrong, P.E., P.S., John Buttelwerth, James Decker, P.S., Elias Feghali, Ralph Wells
The Civil Engineering Technologies Department offers a degree program with three majors, and also offers three certificate programs.
Civil Engineering Technology is a single program from which students may select one of three majors: architectural, construction management, or surveying. The CET program prepares its graduates to successfully enter and advance professionally through technical and management positions in local industry, and to pursue a baccalaureate degree.
Evening courses are available for students who work full-time. These students may earn an associate's degree in the evening in approximately three years while attending class only two nights per week.
The Civil Engineering Technology program is accredited by Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700 and has received an Ohio Board of Regents Program Excellence Award. Additionally, the Construction Management major has earned accreditation from the American Council for Construction Education (ACCE) making it the only program in the United States to hold both accreditations.
The Civil Engineering Technologies Department offers three certificate programs. The Construction Safety Certificate is a stand-alone training program and is also a component of the Safety and Security Management degree program that is offered through the Health and Public Safety Division. The Advanced Surveying Certificate is for graduates of the CET Surveying major and serves as the third year of a bachelor's degree program offered by Northern Kentucky University. The Land Surveying Certificate is for graduates of baccalaureate civil engineering programs who wish to qualify for the examinations to obtain registration as a Professional Surveyor in Ohio.

## Architectural Major (CETA)

This CET major prepares its graduates to bridge the gap between the architect and design engineer by assisting in the design of architectural, mechanical, electrical, and lighting systems for buildings.
To prepare students for the current needs of the profession, the architectural technology curriculum features a heavy emphasis on mechanical systems, water, waste, electrical, lighting systems, and computer aided drafting. In addition, the program instructs students in the areas of construction methods and principles, architectural drafting and design, and structural design involved in building construction. Job titles for graduates may include Architectural Designer/Detailer, Mechanical Designer/Detailer, Electrical Designer/Detailer, and CAD Technician Manager.

## CIVIL ENGINEERING TECHNOLOGY ARCHITECTURAL MAJOR

All degree-seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.
$\begin{array}{cc}\text { Hours Per Week } & \begin{array}{c}\text { Credit } \\ \text { Class }\end{array} \\ \text { Lab }\end{array}$


## THIRD TERM

MAT 1173 Algebra \& Trigonometry 2 with Statistics 40004
CET 7025 Site Drafting $\quad 2 \quad 3 \quad 3$
CET 7926 Building Codes $1 \begin{array}{lll}3 & 2\end{array}$
CET 7927 CAD 1 (CET) 28303

CET 7934 Statics (CET) $\quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 11 | 12 | 15 |

## FOURTH TERM

PHY 2291 Physics 1
(Algebra and Trigonometry Based) $3 \quad 2 \quad 4$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- |
|  | 42 | 6 |

FIFTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| ECO | $151 X$ | Economics Elective | 3 | 0 | 3 |
| CET | 7026 | Architectural Design | 2 | 5 | 4 |
| CET | 7944 | Strength of Materials (CET) | 3 | 2 | 4 |
|  |  |  | 15 | 7 | 18 |

SIXTH TERM
PHY 2292 Physics 2
(Algebra and Trigonometry Based) $\quad 3 \quad 2 \quad 4$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- |
|  | 42 | 6 |

## SEVENTH TERM

| CET | 7928 | CAD 2 (CET) | 1 | 6 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CET | 7943 | Construction Estimating | 2 | 3 | 3 |
| CET | 7956 | Structural Steel Design | 3 | 2 | 4 |
| CET | 7964 | Mechanical Systems | 2 | 3 | 3 |
| CET | 7968 | Lighting Systems | 2 | 3 | 3 |
|  |  | 10 | 17 | 16 |  |
| EIGHTH TERM | 3 | 0 | 3 |  |  |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | 1020 | Public Speaking |  |  |  |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 7 | 40 | 8 |  |

## NINTH TERM

| CULT 1648 | Social Issues in Technology | 3 | 0 | 3 |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CET | 7936 | HVAC Design Systems | 3 | 2 | 4 |
| CET | 7954 | Reinforced Concrete Design | 3 | 2 | 4 |
| CET | 7963 | Electrical Design Systems | 3 | 2 | 4 |
| CET | 7969 | Building Systems Design | 3 | 5 | 5 |
|  |  |  | 11 | 20 |  |

## TENTH TERM

LBR 1535 Introduction to Labor/Management Relations $\quad 3 \quad 0 \quad 3$
PHY 2293 Physics 3
(Algebra and Trigonometry Based) $\quad 3 \quad 2 \quad 4$

| 1 | 40 | 2 |
| ---: | ---: | ---: |
| 7 | 42 | $\frac{9}{120}$ |

Economics Elective: ECO 1512, ECO 1513

## Construction Management Major (CETC)

This CET major prepares its graduates to enter the construction industry at the management level, applying knowledge of building methods and materials; structural fundamentals; and project estimating, scheduling, and management. Early in the curriculum students learn about construction materials and methods, manual and computer-aided architectural drafting, survey drafting, elements of structures, and light construction principles. They learn structural fundamentals through the four-course sequence of statics, strength of materials, structural steel design, and reinforced concrete. Later, they investigate principles of construction management such as project control, scheduling, estimating, project safety, contracting, heavy construction, value engineering, and labor relations. Students use leading CAD architectural, scheduling, and estimating software in many courses. Graduates may be employed as Project Estimators, Project Schedulers, Assistant Project Managers, Construction Layout Specialists, or Senior Civil Technicians.

## CIVIL ENGINEERING TECHNOLOGY CONSTRUCTION MANAGEMENT MAJOR

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| CET | 7024 | Architectural Drafting | 3 | 4 | 4 |
| CET | 7910 | Surveying Measurements | 3 | 2 | 4 |
| CET | 7913 | Intro to Civil Engineering Technologies | 1 | 0 | 1 |
| CET | 7935 | Introduction to CAD (CET) | 2 | 3 | 3 |
|  |  | 12 | 11 | 16 |  |
| SECOND TERM |  |  |  |  |  |
| ENG | $\mathbf{1 0 0 1}$ | English Composition 1 | 3 | 0 | 3 |
| CET | 7915 | OSHA 10-Hour Construction Safety | 0 | 2 | 1 |
| ET | 9400 | Cooperative Education- |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 42 | 6 |  |

## THIRD TERM

MAT 1173 Algebra \& Trigonometry 2 with Statistics 4
CET 7025 Site Drafting 2803

CET 7927 CAD 1 (CET) 2 | 2 | 3 | 3 |
| :--- | :--- | :--- |

CET 7934 Statics (CET) 2803
CET 7943 Construction Estimating

| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 12 | 12 | 16 |

## FOURTH TERM

PHY 2291 Physics 1 (Algebra and Trigonometry Based) 3 2 4 ET 9400 Cooperative Education -

$$
\text { Engineering Technologies (Alternating) } \begin{array}{llll}
1 & 40 & 2 \\
\cline { 2 - 4 } & 42 & 6
\end{array}
$$

## FIFTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| CET | 7921 | Construction Surveying | 2 | 3 | 3 |
| CET | 7931 | Light Construction | 3 | 2 | 4 |
| CET | 7944 | Strength of Materials (CET) | 3 | 2 | 4 |
|  |  |  | 15 | 7 | 18 |

## SIXTH TERM

ECO 151X Economics Elective 3003 PHY 2292 Physics 2 (Algebra and Trigonometry Based) $3 \quad 2 \quad 4$

| ET 9400 | Cooperative Education - |
| :--- | :--- |
|  | Engineering Technologies (Alternating) |
|  |  |

## SEVENTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CET | 7941 | Computer Integrated Construction (CIC) | 1 | 5 | 3 |
| CET | 7942 | Construction Management 1 | 2 | 3 | 3 |
| CET | 7945 | Cost Engineering | 2 | 3 | 3 |
| CET | 7956 | Structural Steel Design | 3 | 2 | 4 |
|  |  |  | 11 | 13 | 16 |

EIGHTH TERM

| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| LBR | 1535 | Intro to Labor/Management Relations | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 7 | 40 | 8 |  |


| NINTH TERM |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| CULT | 1648 | Social Issues in Technology | 3 | 0 |
| 3 |  |  |  |  |
| MGT | 2929 | Construction Business Practices | 3 | 0 |
| 3 |  |  |  |  |
| CET | 7953 | Construction Management 2 | 2 | 4 |
| 4 |  |  |  |  |
| CET | 7954 | Reinforced Concrete Design | 3 | 2 |
| CET | 7955 | Building Construction | 3 | 2 |
|  |  | 14 | 8 | 18 |

## TENTH TERM

PHY 2293 Physics 3
(Algebra and Trigonometry Based) $3 \quad 2 \quad 4$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- |
|  | 42 | 6 |
| 119 |  |  |

$\overline{119}$
Economics Elective: ECO 1512, ECO 1513

## Construction Safety Specialist Certificate (CETCSC)

The Construction Safety Certificate is a 36-credit hour program designed to meet the needs of construction field supervisors, managers, and engineers who will manage and oversee project safety. The certificate is a stand-alone training program for construction personnel in need of safety training for their success or desiring new opportunities within this field. The certificate prepares students for the American Society of Safety Engineers (ASSE) Construction Health \& Safety Technician (CHST) national board exam. The courses within the certificate apply to the Construction Safety major of the Safety and Security Management degree program that is offered by the Health and Public Safety Division.

## CONSTRUCTION SAFETY SPECIALIST CERTIFICATE

|  |  |  | Hours Per week <br> Class |  | Credit <br> Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| TOS | 1020 | Fall Protection Safety | 2 | 2 | 3 |
| TOS | 1021 | Excavation Safety | 2 | 2 | 3 |
| TOS | 1022 | Work Zone Safety | 2 | 0 | 2 |
| TOS | 1023 | Hoisting and Material Handling Safety | 2 | 2 | 3 |
| TOS | 1024 | Electrical Safety | 3 | 0 | 3 |
| TOS | 1030 | Safety Trainer | 2 | 0 | 2 |
| CET | 7971 | Construction Health \& Safety 1 | 3 | 0 | 3 |
| CET | 7972 | Construction Health \& Safety 2 | 3 | 0 | 3 |
| CET | 7973 | Construction Risk Management |  |  |  |
|  |  | \& Insurance 1 | 4 | 0 | 4 |
| CET | 7974 | Construction Safety Plan Management | 3 | 0 | 3 |
| CET | 7975 | Environmental Issues in Construction | 3 | 0 | 3 |
| CET | 7976 | Construction Safety Law | 4 | 0 | 4 |
|  |  |  | 32 | 6 | 36 |
|  |  |  |  |  | 36 |

## Surveying Major (CETS)

This CET major prepares its graduates to effectively operate surveying equipment and computer software to design subdivisions and site plans and to effectively conduct topographical and boundary surveys utilizing conventional equipment and global positioning satellites for data acquisition. Students train using state-of-the-art electronic surveying and computing equipment to learn instrument usage, computer graphics, document research and resolution, route design, control surveying, subdivision planning, satellite positioning (GPS), and geographic information systems (GIS). Professional surveyors are called upon to perform diverse tasks such as designing subdivisions, retracing original boundary lines, laying out construction projects, preparing legal descriptions, and orienting communications systems. Possible job titles for graduates include Survey Crew Chief, Computer Mapping Technician, Construction Layout Specialist, and GIS-GPS Technician.

## CIVIL ENGINEERING TECHNOLOGY SURVEYING MAJOR

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.


## THIRD TERM

MAT 1173 Algebra \& Trigonometry 2 with Statistics 48004
CET 7025 Site Drafting $\quad 2 \quad 3 \quad 3$
CET 7920 Surveying Calculations $\quad 2 \begin{array}{lll}3 & 3\end{array}$
CET 7927 CAD 1 (CET) $2 \begin{array}{lll}2 & 3\end{array}$

CET 7934 Statics (CET) $\quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 12 | 12 | 16 |

## FOURTH TERM

PHY 2291 Physics 1
(Algebra and Trigonometry Based) $3 \quad 2 \quad 4$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |  |
| :--- | :--- | :--- | :--- |
|  | 4 | 42 | 6 |

## FIFTH TERM

ENG 1002 English Composition 2 $\quad 3 \quad 0 \quad 3$
MAT 1193 Analytic Geometry \& Calculus $1 \quad 4 \quad 0 \quad 4$
CET 7921 Construction Surveying $\quad 2 \quad 3 \quad 3$
CET 7930 Route Surveying $4 \begin{array}{lll}5 & 2 & 5\end{array}$

CET 7944 Strength of Materials (CET) $\quad$| 3 | 2 | 4 |
| :---: | :---: | :---: |
| 16 | 7 | 19 |

## SIXTH TERM

| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHY | 2292 | Physics 2 <br> (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - <br> Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 7 | 42 | 9 |  |

## SEVENTH TERM

ENG 1010 Technical Writing $1 \quad 3 \begin{array}{lll}3 & 0 & 3\end{array}$
$\begin{array}{llllll}\text { CET } & 7940 & \text { Elements of Land Surveying } 1 & 3 & 3 & 4\end{array}$

| CET | 7947 | Drainage Control Systems | 3 | 2 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CET | 7948 | Subdivision Design 1 | 2 | 3 | 3 |
| CET | 7949 | Geographic Information Systems 1 | 3 | 2 | 4 |
|  |  |  | 14 | 10 | 18 |

EIGHTH TERM

| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| LBR | 1535 | Introduction to <br> Labor/Management Relations | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 70 | 8 |  |  |

## NINTH TERM

CULT 1648 Social Issues in Technology 3003

CET 7950 Surveying Field Project 1 | 3 | 3 |
| :--- | :--- | :--- |

CET 7958 Control Surveying
163
CET 7959 Subdivision Design 2
233

CET 7991 Elements of Land Surveying $2 \quad$| 3 | 3 | 4 |
| :---: | :---: | :---: |
| 10 | 18 | 16 |

## TENTH TERM

PHY 2293 Physics 3
(Algebra and Trigonometry Based) $3 \quad 24$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |  |
| :--- | :--- | :--- | :--- |
|  | 4 | 42 | $\frac{6}{120}$ |

## Advanced Surveying Certificate (ASC)

This certificate is for graduates of the CETS Associate of Applied Science degree program and serves as the third year of a bachelor's degree program with Northern Kentucky University. Advanced surveying courses in GIS, GPS, and legal topics are offered via online and distance learning. This cooperative venture with NKU has been approved by the State Boards of Registration in Ohio, Indiana, and Kentucky. Students should check with their state licensing board for changes to specific requirements before taking any course work. Graduates of other CET surveying or related associate's degree programs will be required to complete all prerequisite material in the Cincinnati State Surveying Associate of Applied Science degree prior to acceptance into the certificate. Students who wish to transfer credits must meet with the certificate advisor.

## ADVANCED SURVEYING CERTIFICATE

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |
| HST | 1568 | American History 1 | 3 | 0 |
| 3 |  |  |  |  |
| CET | 7993 | Surveying Laws and Ethics | 3 | 0 |

SECOND TERM
CET 7992 Elements of Land Surveying 3 3
CET 7994 Statistics for Surveying Applications $\left.\begin{array}{llll}3 & 0 & 3 \\ & & 6 & 2\end{array}\right]$

## THIRD TERM

BUS 2925 Business Principles $\quad 3 \begin{array}{lll}3 & 0 & 3\end{array}$

CET 7990 Advanced Survey Calculations $\quad$| 3 | 2 | 4 |
| :--- | :--- | :--- |
|  |  | 2 |

FOURTH TERM
ACC 2926 Financial Accounting $1 \quad 4 \quad 2 \quad 5$

CET 7981 Geographical Information Systems $2 \quad$| 3 | 2 | 4 |
| :--- | :--- | :--- |
|  |  | 4 |

FIFTH TERM
$\begin{array}{llllll}\text { SOC } & 1521 & \text { Introduction to Sociology } 1 & 3 & 0 & 3\end{array}$

CET 7982 Global Positioning Systems $2 \quad$| 2 | 4 | 3 |
| :--- | :--- | :--- |
| 5 | 4 | 6 |

## Land Surveying Certificate (LSC)

This certificate is designed for graduates and students of fouryear civil engineering programs who wish to qualify for the examinations to obtain registration as a Professional Surveyor in the State of Ohio. The Ohio State Board of Registration for Professional Engineering and Surveyors requires graduates from an approved four-year civil engineering program to successfully complete 24 quarter hours in surveying and mapping arts and sciences to become eligible for registration. The LSC certificate satisfies this requirement and is approved by the Ohio State Board of Registration for Professional Engineers and Surveyors.

## LAND SURVEYING CERTIFICATE

|  |  | Hours Per Week <br> Class | Cab | Hours |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| RE | 2953 | Real Estate Law | 4 | 0 | 4 |
| CET | 7920 | Surveying Calculations | 2 | 3 | 3 |
| CET | 7930 | Route Surveying | 4 | 2 | 5 |
| CET | 7940 | Elements of Land Surveying 1 | 3 | 3 | 4 |
| CET | 7948 | Subdivision Design 1 | 2 | 3 | 3 |
| CET | 7950 | Surveying Field Project | 1 | 6 | 3 |
| CET | 7958 | Control Surveying | 1 | 6 | 3 |
|  |  |  | 17 | 23 | $\underline{25}$ |
|  |  |  |  |  | $\mathbf{2 5}$ |

## Electrical Engineering Technologies Department

Program Chair - Steven J. Yelton, P.E.
The Electrical Engineering Technologies Department includes degree programs in Electronics Engineering Technology, ElectroMechanical Engineering Technology, and Power Systems Engineering Technology; majors in Biomedical Equipment \& Information Systems Technology and Renewable Energy; and certificate programs in Computer Repair and Renewable Energy.

## Electronics Engineering Technology (EET)

Co-op Coordinator - Sue Dolan
Advisors - Mike Carroll, Linda Pohlgeers, Steven J. Yelton, P.E.
The Electronics Engineering Technology program prepares its graduates to successfully enter and pursue baccalaureate degrees, to enter and advance professionally through technical and mid-management positions in local industry, and to effectively install, calibrate, and repair electronic equipment.
Electronics Engineering Technology includes studies in analog and digital electronics, computer system hardware, and software design and testing, and computer repair and instrumentation. Coursework covers the theory and application of electronic systems and computer systems including time spent in labs fully equipped for electronic or computer design and applications.
Job titles for graduates may include Applications Technician, Computer Hardware Technician, Software Specialist, Service Technician, Engineering Technician, Communications Technician, or Field Service Technician. Graduates of the EET program also fill traditional Electronics Technician positions. With some additional study, graduates may also become certified as Computer Technicians, Electronics Technicians, and Network Technicians.
Students pursing a two-year associate's degree in EET are required to hold on-site, related, paid cooperative education positions in order to meet graduation requirements. Exceptions to this policy may be permitted with the approval of the cooperative education coordinator.

The Electronics Engineering Technology program is accredited by Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700.

## ELECTRONICS ENGINEERING TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| EET | 7728 | Digital Combinational Logic | 3 | 3 | 4 |
| XXX | XXXX | Career Preparation Elective | 1 | 1 | 1 |
|  |  | 15 | 9 | 18 |  |
| SECOND TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 40 | 5 |  |

## THIRD TERM

| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| EET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
|  |  | 15 | 9 | 18 |  |

## FOURTH TERM

| PHY | 2291 | Physics 1 <br> (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 42 | 6 |
| FIFTH TERM |  |  |  |  |  |
| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| PHY | 2292 | Physics 2 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EET | 7730 | Electronics 1 | 5 | 3 | 6 |
| EET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
|  |  |  | 15 | 8 | 18 |
| SIXTH TERM |  |  |  |  |  |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 3 | 43 | 5 |

## SEVENTH TERM

| ECO | $15 X X$ | Economics Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| IT | 5152 | Network Communications 2 | 2 | 3 | 3 |
| EET | 7740 | Electronics 2 | 5 | 3 | 6 |
| EET | 7768 | Microprocessor Systems 2 | 3 | 3 | 4 |
| EET | 7778 | Programmable Logic Devices | 2 | 3 | 3 |
|  |  | 15 | 12 | 19 |  |
| EIGHTH TERM | 3 | 0 | 3 |  |  |
| SPE | $102 X$ | Speech Elective |  |  |  |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 40 | 5 |  |

## NINTH TERM

ENG 1010 Technical Writing $1 \quad 3$|  | 0 | 3 |
| :--- | :--- | :--- |

$\begin{array}{llllll}\text { PSY } & 1505 & \text { Introduction to Psychology } 1 & 3 & 0 & 3\end{array}$
PHY 2293 Physics 3
(Algebra and Trigonometry Based) $\begin{array}{llll} & 3 & 2 & 4\end{array}$
EET 7750 Electronics 3
EET 7751 EET Design Project

| 3 | 3 | 4 |
| :---: | :---: | :---: |
| 3 | 3 | 4 |
| 15 | 8 | 18 |

## TENTH TERM

| CULT 1648 | Social Issues in Technology | 3 | 0 | 3 |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 40 | $\frac{5}{117}$ |  |

Economics Elective: ECO 1512, ECO 1513
Speech Elective: SPE 1020, SPE 1024
Career Preparation Elective: BT 9200, ET 9300

## Electro-Mechanical Engineering Technology (EMET)

Program Chair - Larry Feist
Co-op Coordinator - Kim Richards
Advisor - Mike Carroll
The Electro-Mechanical Engineering Technology program prepares its graduates to successfully enter and pursue bachelor's degrees, to enter and advance professionally through technical and mid-management positions in local industry, and to effectively install, maintain, troubleshoot, and test industrial equipment in an automated manufacturing environment. The program combines the study of mechanical systems used in industry and the electronic systems that control them. The curriculum includes theory and application of analog and digital electronics and devices, electric motors and controls, computer control applications/programming, industrial hydraulic and pneumatic systems, mechanisms and machine drives, programmable logic controllers, servomechanisms, variable speed drives, and robotics.
Graduates are equipped to enter diverse positions such as Robotics/Automation Technician, Field Service Technician, Maintenance Technician, Process Control/Instrumentation Technician, and similar fields. Many EMET graduates continue their education after earning an associate's degree from Cincinnati State. Articulation agreements simplify credit transfer to local colleges.
The Electro-Mechanical Engineering Technology program is accredited by Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700 and has received an Ohio Board of Regents Program Excellence Award.

## ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  |  | Hours Per Week |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Class | Lab |  |
| FIRST TERM |  |  |  |  |  |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| MET | 7310 | Manufacturing Processes |  |  |  |
|  |  | with CNC Programming | 2 | 3 | 3 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| EET | 7728 | Digital Combinational Logic | 3 | 3 | 4 |
| ET | 9300 | Technology Career Preparation | 1 | 1 | 1 |
|  |  |  | 14 | 12 | 18 |
| SECOND TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |

THIRD TERM

| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHY | 2291 | Physics 1 <br>  <br>  <br> (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| EET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
|  |  | 15 | 8 | 18 |  |

FOURTH TERM

| MET | 7108 | Engineering Drawing 1 with AutoCAD | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 3 | 43 | 5 |  |

FIFTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHY | 2292 | Physics 2 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7145 | Statics and Strength of Materials | 2 | 3 | 3 |
| EET | 7730 | Electronics 1 | 5 | 3 | 6 |
| EMT | 7758 | Motors \& Controls | 3 | 2 | 4 |
|  |  | 16 | 10 | 20 |  |
| SIXTH TERM |  |  |  |  |  |
| MET | 7125 | Visual BASIC (MET) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 42 | 6 |  |

## SEVENTH TERM

| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MET | 7132 | Hydraulics \& Pneumatics 1 | 2 | 3 | 3 |
| MET | 7141 | Kinematics \& Dynamics of Machines | 3 | 2 | 4 |
| EMT | 7146 | Electro-Mechanical Controls 1 |  |  |  |
|  |  | (Programmable Controllers-PLCs) | 3 | 3 | 4 |
| EMT | 7154 | Variable Speed Drives | 2 | 2 | 3 |
|  |  | 13 | 10 | 17 |  |

## EIGHTH TERM

MAT 1193 Analytic Geometry \& Calculus $1 \quad 4 \quad 0 \quad 4$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- |
|  | 5 | 40 |

NINTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ECO | 1513 | Macroeconomics | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 <br> (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EMT | 7157 | Electro-Mechanical Controls 2 <br> (Servomechanisms) | 3 | 3 | 4 |
| EMT | 7167 | Robotics 1 | 2 | 2 | 3 |
|  |  | 14 | 7 | 17 |  |

## TENTH TERM

| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CULT | 1648 | Social Issues in Technology | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 7 | 40 | $\frac{8}{120}$ |  |

## Power Systems Engineering Technology (PSET)

Program Chairs - Larry Morris, P.E., and Steve Yelton, P.E. Co-op Coordinator - Sue Dolan
Advisor - Larry Morris, P.E.
Power Systems Engineering Technology graduates are prepared to meet the current and future personnel needs of utility companies, electrical contractors, HVAC contractors, and industrial electrical design and maintenance firms.
Graduates are prepared to troubleshoot and repair power systems equipment and instrumentation, calibrate instrumentation,
work on computer controlled networks, work in technical sales, and use measuring and software tools to test/maintain equipment. Graduates earn an Associate of Applied Science Degree. Job titles for PSET graduates include: Power Systems Technician, Lineman, Electrician, Senior Technician, and Manager.

## POWER SYSTEMS ENGINEERING TECHNOLOGY

All degree seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.
Students must complete PSET 7915 Electrical Safe Work Practices
(OSHA) to be eligible for Cooperative Education.
Hours Per Week Credit Class Lab Hours

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| EET | 7728 | Digital Combinational Logic | 3 | 3 | 4 |
| ET | 9300 | Technology Career Preparation | 1 | 1 | 1 |
|  |  | 12 | 9 | 15 |  |

## SECOND TERM

| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| PSET | 7718 | Introduction to |  |  |  |
|  |  | the National Electric Code (NEC) | 1 | 3 | 2 |
| PSET | 7737 | Introduction to Power Systems | 2 | 3 | 3 |
| PSET | 7915 | Electrical Safe Work Practices | 0 | 2 | 1 |
|  |  | 9 | 11 | 13 |  |
| THIRD TERM |  |  |  |  |  |
| PHY | 2291 | Physics 1 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 42 | 6 |  |

## FOURTH TERM

| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| EET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
| PSET | 7771 | Wiring, Cables, and Connectors | 2 | 3 | 3 |
|  |  | 14 | 9 | 17 |  |
| FIFTH TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 40 | 5 |  |
| SIXTH TERM |  |  |  |  |  |
| EET | 7730 | Electronics 1 | 5 | 3 | 6 |
| PSET | 7747 | Power Systems Design 1 | 4 | 3 | 5 |
| EET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
| EMT | 7758 | Motors \& Controls | 3 | 2 | 4 |
|  |  |  | 15 | 11 | 19 |
| SEVENTH TERM | 3 | 0 | 3 |  |  |
| SPE | $102 X$ | Speech Elective |  |  |  |
| ET | 9400 | Cooperative Education - |  |  |  |
|  | Engineering Technologies (Alternating) | 1 | 40 | 2 |  |
|  |  | 4 | 40 | 5 |  |

## EIGHTH TERM

| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ECO | 15 XX | Economics Elective | 3 | 0 | 3 |
| PHY | 2292 | Physics 2 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| PSET | 7757 | Power Systems Design 2 | 4 | 3 | 5 |
| EET | 7778 | Programmable Logic Devices | 2 | 3 | 3 |
|  |  |  | 16 | 8 | 19 |

## NINTH TERM

CULT 1648 Social Issues in Technology $\quad 3 \quad 0 \quad 3$

| ET 9400 | Cooperative Education - |
| :--- | :--- |
|  | Engineering Technologies (Alternating) |
|  |  |

## TENTH TERM

ENG 1010 Technical Writing 1 3 $\quad 0 \quad 3$
PSY 1505 Introduction to Psychology $1 \quad 3 \begin{array}{llll} & 0 & 3\end{array}$
MET 7148 Applied Thermodynamic
$3 \quad 2 \quad 4$
PSET 7767 Power System Software Applications $\quad 3 \quad 3 \quad 4$
PSET 7790 Power System Career and
Assessment Semina

| 1 | 3 | 2 |
| :---: | :---: | :---: |
| 13 | 8 | $\frac{16}{120}$ |

Economics Elective: ECO 1512, ECO 1513
Speech Elective: SPE 1020, SPE 1024

## Biomedical Equipment \& Information Systems Technology Major (BMT)

Co-op Coordinator - Sue Dolan
Advisors - Linda Pohlgeers and Steven J. Yelton, P.E.
The Biomedical Equipment and Information Systems Technology major prepares its graduates to successfully enter and pursue baccalaureate degrees, to enter and advance professionally through technical and mid-management positions in local hospitals and industry, and to effectively install, calibrate, and repair biomedical equipment and information systems.
BMT students gain skills in electronics, computer networking, computer software, and medical instrumentation. Graduates may find employment in hospitals, medical equipment companies, and electronics firms. Potential job titles include Biomedical Technician, Information Systems Technician, and Engineering Technician.
Students pursuing a two-year associate's degree in BMT are required to hold on-site, related, paid cooperative education positions in order to meet graduation requirements. Exceptions to this policy may be permitted with the approval of the co-op coordinator and the program chair of the BMT major.
The Biomedical Equipment and Information Systems Technology program is accredited by Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700.

## BIOMEDICAL EQUIPMENT AND INFORMATION SYSTEMS TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| EET | 7728 | Digital Combinational Logic | 3 | 3 | 4 |
| BMT | 7739 | Introduction to Biomedical Information |  |  |  |
|  |  | Systems and Technology | 2 | 3 | 3 |
|  |  | 16 | 11 | 20 |  |
| SECOND TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
| XXX | XXXX | Career Preparation Elective | 1 | 1 | 1 |
|  |  |  | 5 | 41 | 6 |


| THIRD TERM |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| EET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
|  |  |  | 15 | 9 | 18 |
| FOURTH TERM |  |  |  |  |  |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 42 | 6 |
| FIFTH TERM |  |  |  |  |  |
| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| EET | 7730 | Electronics 1 | 5 | 3 | 6 |
| EET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
|  |  |  | 15 | 9 | 18 |
| SIXTH TERM |  |  |  |  |  |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 3 | 43 | 5 |
| SEVENTH TERM |  |  |  |  |  |
| ECO | 15XX | Economics Elective | 3 | 0 | 3 |
| IT | 5152 | Network Communications 2 | 2 | 3 | 3 |
| EET | 7740 | Electronics 2 | 5 | 3 | 6 |
| BMT | 7749 | Biomedical Instrumentation 1 | 3 | 5 | 5 |
|  |  |  | 13 | 11 | 17 |
| EIGHTH TERM |  |  |  |  |  |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |
| NINTH TERM |  |  |  |  |  |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| EET | 7750 | Electronics 3 | 3 | 3 | 4 |
| BMT | 7759 | Biomedical Instrumentation 2 | 3 | 5 | 5 |
|  |  |  | 15 | 10 | 19 |
| TENTH TERM |  |  |  |  |  |
| CULT | 1648 | Social Issues in Technology | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |

Economics Elective: ECO 1512, ECO 1513
Speech Elective: SPE 1020, SPE 1024
Career Preparation Elective: BT 9200, ET 9300

## Electro-Mechanical Engineering Technology Renewable Energy Major (EMTR)

Co-op Coordinator - Kim Richards
Advisor - Larry Feist
The Electro-Mechanical Engineering Technology-Renewable Energy Major was developed to address the needs of growing industries in Ohio and middle America including photovoltaic electric panel manufacturers (formerly known as solar panels), wind turbine manufacturers, fuel cell manufacturers, photovoltaic and wind turbine installation and service, and energy efficiency companies/consultants. These new technologies require most of the traditional foundation courses of an Electro-Mechanical Engineering Technologies student but a graduate can choose possible pathways such as technician in a manufacturing facility, such as a wind turbine, photovoltaic or fuel cell manufacturer;
installer or field technician for wind turbine, photovoltaic or fuel cell technology; or pursue a bachelor's degree in engineering technologies such as Mechatronics or chemical engineering for research and development of the next generation of renewable energies. Graduates may also become energy efficiency technicians, engineers, or auditors to advise businesses or manufacturers how to reduce energy consumption.

## ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY - RENEWABLE ENERGY MAJOR

All degree seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class <br> Lab | Credit <br> Hours |  |
| :--- | :--- | :--- | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |
| ENG | 1001 | English Composition 1 | 4 | 0 |
| MAT | 11 XX | MAT Elective | 4 |  |
| ECO | 1513 | Macroeconomics |  | 0 |
| MET | 7310 | Manufacturing Processes |  |  |
|  |  | with CNC Programming | 2 | 3 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 |
| EET | 7711 | DC Circuits Lab | 0 | 3 |
|  |  |  | 17 | 6 |

SECOND TERM

| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ET | 9400 | $\begin{array}{l}\text { Cooperative Education - } \\ \end{array}$ | Engineering Technologies (Alternating) | 1 | 40 |
|  |  | 4 | 40 | 5 |  |

THIRD TERM
MAT 11XX Math Elective $\quad 4 \quad 0 \quad 4$
PSC 2267 Energy $3 \begin{array}{lll}3 & 4\end{array}$
PHY 22XX Physics Elective
EET 7720 AC Circuit Analysis
EET 7721 AC Circuits Lab
PSET 7915 Electrical Safe Work Practices

| 0 | 3 | 1 |
| :---: | :---: | :---: |
| 0 | 2 | 1 |
| 15 | 9 | 19 |

## FOURTH TERM

PHY 22XX Physics Elective $3 \quad 2 \quad 4$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |  |
| :--- | :--- | :--- | :--- |
|  | 4 | 42 | 6 |

FIFTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| MET | 7108 | Engineering Drawing 1 with AutoCAD | 2 | 3 | 3 |
| MET | 71 XX | Mechanical Elective | 2 | 3 | 3 |
| EMT | 7758 | Motors \& Controls | 3 | 2 | 4 |
| EMTR 7791 | Electronic Devices: |  |  |  |  |
|  | Renewable Energy Systems | 2 | 3 | 3 |  |
|  |  | 15 | 11 | 19 |  |

## SIXTH TERM

| MET | 7125 | Visual BASIC (MET) | 2 | 3 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 43 | 5 |  |

SEVENTH TERM

| CHE | 2251 | Freshman Chemistry 1 | 4 | 3 | 5 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MET | 7141 | Kinematics \& Dynamics of Machines | 3 | 2 | 4 |
| EMT | 7146 | Electro-Mechanical Controls 1 |  |  |  |
|  |  | (Programmable Controllers-PLCs) | 3 | 3 | 4 |
| EMT | 7154 | Variable Speed Drives | 2 | 2 | 3 |
| EMTR 7792 | Energy Efficiency and Audits | 2 | 3 | 3 |  |
|  |  | 14 | 13 | 19 |  |

## EIGHTH TERM

MAT 11XX Math Elective 4
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |  |
| :--- | :--- | :--- | :--- |
|  | 5 | 40 | 6 |

## NINTH TERM

| ENG 10XX | English Elective | 3 | 0 | 3 |
| :--- | :--- | :---: | :---: | :---: |
| CULT 1648 | Social Issues in Technology | 3 | 0 | 3 |
| EMTR 7793 | Fuel Cell Devices | 2 | 3 | 3 |
| EMTR 7794 | Photovoltaic and Wind Devices | 4 | 3 | 5 |
| XXX XXXX | Science Elective | 3 | 2 | 4 |
|  |  | 15 | 8 | 18 |

## TENTH TERM

ET 9400 Cooperative Education Engineering Technologies (Alternating) $1 \quad 40 \quad \frac{2}{118}$
English Elective: ENG 1010, ENG 1003*
Mathematics Elective: Take one of the following series, MAT 1191, MAT 1192, MAT 1193 or MAT 1154, MAT 1155, MAT 1156* Mechanical Elective: MET 7145, MET 7130*
Physics Elective: Take one of the following sequences, PHY 2291, PHY 2292 or PHY 2295, PHY 2296*
Science Elective: PHY 2293, CHE 2252*
*Students planning to transfer into a Bachelor of Science in Engineering program must take elective courses identified with an asterisk.

## Electro-Mechanical Engineering Technology Renewable Energy Certificate (EMTRC)

 Advisor - Larry FeistThis certificate is designed for current electricians, technicians, or engineers who desire additional education in the field of renewable energies and energy efficiency. Most students can complete the Electro-Mechanical Engineering Technology Renewable Energy Certificate in about one year, depending on their previous education and work experience. All courses taken in the certificate receive college degree-seeking credit and apply towards the Electro-Mechanical Engineering Technology Renewable Energy Major.

## ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY - RENEWABLE ENERGY CERTIFICATE

|  |  | Hours Per Week <br> Class <br> Lab |  |  | Credit <br> Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| EET | 7701 | Electronic Fundamentals 1 | 3 | 3 | 4 |
| EET | 7707 | Survey of Analog Devices | 3 | 2 | 4 |
| EMTR 7791 | Electronic Devices: |  |  |  |  |
|  | Renewable Energy Systems | 2 | 3 | 3 |  |
| EMTR 7792 | Energy Efficiency and Audits | 2 | 3 | 3 |  |
| EMTR 79XX | Renewable Energy Elective | 2 | 3 | 3 |  |
|  |  | 16 | 14 | $\underline{21}$ |  |
|  |  |  |  |  | 21 |

Renewable Energy Elective: EMTR 7793, EMTR 7794

## Information Services and Support Department

The Information Services and Support Department offers degree programs in Computer Information Systems, and PC Support and Administration.

## Computer Information Systems Technology (CIS)

Program Chair - Clark Stull
Co-op Coordinator - Ocie Hammond
The Computer Information Systems program prepares students to support rapidly changing e-business needs, with special focus
on IBM's use of open source. Students gain knowledge of operating systems, programming languages and concepts, and learn to organize computer-related personnel, equipment, and corporate resources to support e-business success.
Graduates earn an Associate of Applied Business degree. Job titles for graduates may include Computer Programmer/Analyst.

## COMPUTER INFORMATION SYSTEMS TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab | Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |  |
| ENG | 1001 | English Composition 1 | 4 | 0 | 4 |
| MAT | 1151 | College Algebra | 2 | 3 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5216 | Applied Programming Concepts 1 | 2 | 3 | 3 |
| IT | 5230 | Introduction to IBM System i | 1 | 1 | 1 |
| ET | 9300 | Technology Career Preparation | 14 | 10 | 17 |
|  |  |  |  |  |  |

## SECOND TERM

| MKT | 2901 | Principles of Marketing 1 <br> IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 3 |  |  |  |  |
|  |  | 1 | 40 | 2 |  |

## THIRD TERM

ENG 1002 English Composition $2 \quad 3 \begin{array}{lll}3\end{array}$
MAT 1111 Statistics $1 \quad 3 \quad 0 \quad 3$

ECO 1512 Microeconomics 3003
$\begin{array}{llllll}\text { IT } & 5233 & \text { Command Language } 1(\text { CL 1) } & 2 & 3 & 3\end{array}$
IT 5266 RPG $1 \quad 2 \begin{array}{lll}3 & 3\end{array}$

IT 5271 Java 1 | 2 | 3 | 3 |
| :---: | :---: | :---: |
|  | 15 | 9 |

FOURTH TERM

| ACC | 2926 | Financial Accounting 1 | 4 | 2 | 5 |
| :--- | :--- | :--- | :---: | :--- | :--- |
| IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 5 | 42 | 7 |  |

FIFTH TERM
ENG
introduction to Sociology 1
MGT 2967 Introduction to Management $\begin{array}{llll}3 & 0 & 3\end{array}$
IT 5234 Command Language $2($ CL 2) $\quad 2 \quad 303$
$\begin{array}{llllll}\text { IT } & 5267 & \text { RPG } 2 & 2 & 3 & 3\end{array}$
IT 5272 Java 2

| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 15 | 9 | 18 |

SIXTH TERM

| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :--- |
| IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 1 40 2  <br>   4 40 |  |  |

SEVENTH TERM

| LAW | 1823 | Business Law 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| IT | 5240 | IBM WebSphere and XML | 2 | 3 | 3 |
| IT | 5268 | RPG 3 | 2 | 3 | 3 |
| IT | 5273 | Java 3 | 2 | 3 | 3 |
| IT | 5311 | IBM DB2 SQL Programming 1 | 2 | 3 | 3 |
|  |  | 11 | 12 | 15 |  |

EIGHTH TERM

| IT | 5207 | Systems Analysis and Design | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 3 | 43 | 5 |  |

NINTH TERM

| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
| IT | 5269 | RPG 4 | 2 | 3 | 3 |
| IT | 5274 | Java 4 | 2 | 3 | 3 |


| IT | 5351 | CIS Design Project 1 | 2 | 3 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  |  | 11 | 12 | 15 |  |
| TENTH TERM |  |  |  |  |  |
| IT | 5352 | CIS Design Project 2 | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 3 | 43 | $\frac{5}{110}$ |  |

## PC Support and Administration Technology (PCSA)

Program Chair - Steven J. Yelton, P.E.
Co-op Coordinator - Ocie Hammond
Advisor: Linda Pohlgeers
Students seeking the PC Support and Administration degree develop the skills needed to install, configure, troubleshoot, and maintain hardware and software for all types of PCs. Students learn computer repair, operating systems, networking technologies, and technical support center (helpdesk) management.

Graduates earn an Associate of Applied Science degree. Job titles for PCSA graduates may include Senior PC Support Technician, PC System Coordinator, and Helpdesk Manager.

## PC SUPPORT AND ADMINISTRATION TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per <br> Class |  | Leek <br> Lab | Credit <br> Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |  |
| ENG | 1001 | English Composition 1 | 4 | 0 | 4 |
| MAT | 1171 | Technical Mathematics 1 | 2 | 3 | 3 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5231 | Operating Systems: Windows 1 | 3 | 3 | 4 |
| EET | 7701 | Electronic Fundamentals 1 | 1 | 1 | 1 |
| ET | 9300 | Technology Career Preparation | 15 | 10 | 18 |
|  |  |  |  |  |  |
| SECOND TERM | 2 | 3 | 3 |  |  |
| EET | 7779 | Computer Repair: Basic |  |  |  |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 3 | 43 | 5 |  |

## THIRD TERM

ENG 1002 English Composition $2 \quad 3 \quad 0 \quad 3$
MAT 1172 Technical Mathematics $2 \quad 4 \quad 0 \quad 4$
IT 5121 LAN Administration: Windows $1 \quad 3 \quad 2 \quad 4$
$\begin{array}{llllll}\text { IT } & 5232 & \text { Operating Systems: Windows } 2 & 2 & 3 & 3\end{array}$

EET 7707 Survey of Analog Devices $\quad$| 3 | 2 | 4 |
| :---: | :---: | :---: |
|  |  | 75 |

## FOURTH TERM

EET 7780 Computer Repair: General Systems $\quad 2 \quad 3 \quad 3$
IT 9500 Cooperative Education -

Information Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- |
|  | 3 | 43 |

FIFTH TERM

| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| IT | 5131 | Network Management/Help Desk | 3 | 2 | 4 |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| IT | 5208 | PC Software Support | 3 | 2 | 4 |
| EET | 7705 | Survey of Digital Systems | 3 | 3 | 4 |
|  |  |  | 14 | 10 | 18 |
| SIXTH TERM |  |  |  |  |  |
| EET | 7781 | Computer Repair: Advanced Systems | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 3 | 43 | 5 |  |

SEVENTH TERM

| CULT | 1648 | Social Issues in Technology | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| OT | 3068 | Database Management: Access 1 | 2 | 3 | 3 |
| IT | 5152 | Network Communications 2 | 2 | 3 | 3 |
| IT | 5453 | Web Development 1 | 2 | 3 | 3 |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
|  |  | 12 | 12 | 16 |  |
| EIGHTH TERM | 3 | 0 | 3 |  |  |
| ECO | 1512 | Microeconomics |  |  |  |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 40 | 5 |  |

## NINTH TERM

ENG 1010 Technical Writing $1 \quad 3 \begin{array}{lll}3\end{array}$
MGT 2996 Project Management 3003
IT 5291 Visual BASIC $1 \quad 2 \begin{array}{lll}2 & 3\end{array}$

IT 5332 Internet Programming: JavaScript $\quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 10 | 6 | 12 |

## TENTH TERM

SPE 1020 Public Speaking 3003
IT 9500 Cooperative Education -

Information Technologies (Alternating) | 1 | 40 | 2 |  |
| :---: | :---: | :---: | :---: |
|  | 4 | 40 | $\frac{5}{107}$ |

## Mechanical Engineering Technologies Department

The Mechanical Engineering Technologies Department offers degree programs in Industrial Design Technology and Mechanical Engineering Technology. The Mechanical Engineering Technology degree offers majors in Design or Manufacturing Management, and an option (academic specialty) in Plastics. The department also offers a certificate in Manufacturing CNC for those currently employed in the manufacturing field who are seeking specialized training in CNC programming.

## Industrial Design Technology (IDT)

Program Chair - Larry Feist
Co-op Coordinator - Kathleen McClusky
Advisor - Mike DeVore, P.E.
The Industrial Design Technology (IDT) program combines the analytical and technical computer skills from a mechanical program with the visual and artistic skills from a computer graphics program. The IDT program deals with the form and function of manufactured goods. An industrial design technician is involved in the creation of new product shapes and styles or re-designing existing products to increase their usefulness through applications of ergonomics, computer generated images, modeling, and prototyping. The IDT program at Cincinnati State includes four cooperative education terms with local placement and the potential for national placement. Upon graduation the student will earn an Associate of Applied Science degree.
IDT program graduates may be involved in product designs such as tools, toys, electronic equipment, appliances, furniture, medical equipment, and transportation equipment. An industrial design technician is a specialist supporting industrial design and interfacing with engineering and manufacturing to create new products.

## INDUSTRIAL DESIGN TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per week <br> Class <br> Lab | Credit <br> Hours |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |  |
| ENG | 1001 | English Composition 1 | 2 | 2 | 3 |
| ART | 1690 | Drawing 1 | 2 | 3 | 3 |
| ART | 1692 | Design 1 |  |  |  |
| IT | 5410 | Cross-Platform Computer Systems | 2 | 2 | 3 |
|  |  | and Applications | 2 | 3 | 3 |
| IDT | 7801 | Introduction to Industrial Design | 0 | 4 | 2 |
| ITD | 7805 | Rapid Visualization Techniques | 11 | 14 | 17 |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
| MET | 7108 | Engineering Drawing 1 with AutoCAD | 2 | 3 | 3 |
| MET | 7310 | Manufacturing Processes |  |  |  |
|  |  | with CNC Programming | 2 | 3 | 3 |
| IDT | 7825 | Human Factors in Design | 2 | 3 | 3 |
|  |  | 15 | 12 | 19 |  |
| THIRD TERM |  |  |  |  |  |
| PHY | 2222 | Technical Physics 2 | 2 | 3 | 3 |
| IT | 5441 | Beginning 2D Graphics: Bitmap | 2 | 3 | 3 |
| MET | 7120 | Mechanical Engineering Technology |  |  |  |
|  |  | AutoCAD 2 | 2 | 3 | 3 |
| MET | 7220 | Plastic Materials and Processes 1 | 2 | 3 | 3 |
| MET | 7320 | Advanced CNC Programming | 2 | 3 | 3 |
| IDT | 7850 | Computer Modeling 1 | 2 | 3 | 3 |
|  |  |  | 12 | 18 | 18 |
| FOURTH TERM | 4 | 0 | 4 |  |  |
| MAT | 1172 | Technical Mathematics 2 |  |  |  |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 5 | 40 | 6 |  |

## FIFTH TERM

ART 1694 Sculpture 1 $\quad 2 \quad 3 \begin{array}{lll}4\end{array}$
MET 7121 Engineering Drawing 2 with AutoCAD $\quad 2 \quad 3 \quad 3$
$\begin{array}{llllll}\text { MET } & 7145 & \text { Statics and Strength of Materials } & 2 & 3 & 3\end{array}$

IDT 7855 Computer Modeling $2 \quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 8 | 12 | 13 |

SIXTH TERM
ET 9400 Cooperative Education -
Engineering Technologies (Alternating) $1 \quad 40 \quad 2$

## SEVENTH TERM

| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MET | 7111 | Engineering Materials | 3 | 2 | 4 |
| MET | 7122 | Mechanical Engineering Technology |  |  |  |
|  |  | CAD 3 | 2 | 3 | 3 |
| MET | 7330 | CAD-CAM 1 | 2 | 3 | 3 |
| IDT | 7870 | Model Making/Prototyping | 2 | 3 | 3 |
|  |  | 12 | 11 | 16 |  |
| EIGHTH TERM |  |  |  |  |  |
| IDT | 7880 | Advanced Model Making/Prototyping | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 3 | 43 | 5 |  |

## NINTH TERM

ENG 1010 Technical Writing $1 \quad 3 \begin{array}{lll}3 & 0 & 3\end{array}$
SPE 1024 Group Dynamics \& Problem Solving $\quad 3 \quad 0 \quad 3$
MKT 2901 Principles of Marketing 1 3

IDT 7890 Industrial Design Project $\quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 11 | 3 | 12 |

## TENTH TERM

ET 9400 Cooperative Education -
Engineering Technologies (Alternating) $1 \quad 40 \quad \frac{2}{110}$

## Mechanical Engineering Technology

Program Chair - Mike DeVore, P.E.
Co-op Coordinator - Kim Richards
Advisors - Larry Feist, David Simmermon
Students in the Mechanical Engineering Technology program learn to use the latest technology to design and manufacture devices and systems for use in consumer products, machine tools, automotive, and aerospace industries. Graduates of the MET program are prepared to design mechanical systems, operate CAD systems, manage design projects, and perform product testing. Examples of program graduate job titles include Product Designer, CAD/CAM System Specialist, Product Support Manager, Design Engineering Technician, and Project Engineering Technician.
The MET program is a two-year Associate of Applied Science program that includes majors in MET-Design, METManufacturing Management, and an MET-Plastics option. The Mechanical Engineering Technology program prepares its graduates to successfully enter and pursue baccalaureate degrees and to enter and advance professionally through technical and mid-management positions in local industry. The Mechanical Engineering Technology program is accredited by Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700. Many MET graduates continue their education after earning an associate's degree from Cincinnati State. Articulation agreements simplify credit transfer to local colleges.

## Mechanical Engineering Technology Design (METD)

MET Design is the traditional Mechanical Engineering Technology program, which prepares its graduates to design, develop, and test consumer products, industrial machinery, and automated manufacturing systems. The curriculum prepares students for solving real-world problems using logical thinking, problem solving, and computer software. Courses emphasize Computer Aided Design (CAD) and Computer Aided Engineering (CAE) as students learn to produce designs from concept to completion. The METD curriculum provides students with the most effective mechanism to transfer into an MET bachelor's degree program.

## MECHANICAL ENGINEERING TECHNOLOGY - DESIGN

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |

## SECOND TERM

ENG 1002 English Composition 2 $\quad 3 \quad 0 \quad 3$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- |
|  | 40 | 40 |

| THIRD TERM |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| PHY | 2292 | Physics 2 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7120 | Mechanical Engineering Technology AutoCAD 2 | 2 | 3 | 3 |
| MET | 7121 | Engineering Drawing 2 with AutoCAD | 2 | 3 | 3 |
| MET | 7130 | Engineering Mechanics-Statics | 3 | 2 | 4 |
|  |  |  | 14 | 10 | 18 |
| FOURTH TERM |  |  |  |  |  |
| MET | 7125 | Visual BASIC (MET) | 2 | 3 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 3 | 43 | 5 |
| FIFTH TERM |  |  |  |  |  |
| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| MET | 7122 | Mechanical Engineering Technology CAD 3 | 2 | 3 | 3 |
| MET | 7132 | Hydraulics \& Pneumatics 1 | 2 | 3 | 3 |
| MET | 7140 | Strength of Materials | 3 | 3 | 4 |
| MET | 7141 | Kinematics \& Dynamics of Machines | 3 | 2 | 4 |
|  |  |  | 14 | 11 | 18 |
| SIXTH TERM |  |  |  |  |  |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 43 | 6 |
| SEVENTH TERM |  |  |  |  |  |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MET | 7111 | Engineering Materials | 3 | 2 | 4 |
| MET | 7150 | Machine Design 1 | 3 | 3 | 4 |
| MET | 7152 | Hydraulics \& Pneumatics 2 | 2 | 3 | 3 |
| MET | 7198 | MET Design Project 1 | 2 | 6 | 5 |
|  |  |  | 13 | 14 | 19 |
| EIGHTH TERM |  |  |  |  |  |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 7 | 40 | 8 |
| NINTH TERM |  |  |  |  |  |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| MET | 7148 | Applied Thermodynamics | 3 | 2 | 4 |
| MET | 7155 | Machine Design 2 | 3 | 3 | 4 |
| MET | 7158 | MET Design Project 2 | 2 | 3 | 3 |
| EET | 7706 | Electrical Fundamentals for MET | 2 | 3 | 3 |
|  |  |  | 13 | 11 | 17 |
| TENTH TERM |  |  |  |  |  |
| CULT | 1648 | Social Issues in Technology | 3 | 0 | 3 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |
|  |  |  |  |  | $\overline{119}$ |

## Manufacturing Management Major (METM)

The MET Manufacturing Management major prepares its graduates to function effectively as technicians in production and quality control in automated manufacturing environments. The curriculum contains hands-on manufacturing processes and state-of-the-art Computer Aided Drafting and Computer Aided Machining (CAD/CAM) integrated with Statistical Process Control (SPC) and other critical technologies.

MECHANICAL ENGINEERING TECHNOLOGY - MANUFACTURING MANAGEMENT MAJOR

All degree-seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| MET | 7108 | Engineering Drawing 1 with AutoCAD | 2 | 3 | 3 |
| MET | 7310 | Manufacturing Processes |  |  |  |
|  |  | with CNC Programming |  |  |  |
| ET | 9300 | Technology Career Preparation | 2 | 3 | 3 |
|  |  |  | 1 | 1 | 1 |
| SECOND TERM | 14 | 11 | 18 |  |  |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 43 | 6 |  |

THIRD TERM
PHY 2292 Physics 2 (Algebra and Trigonometry Based) 3024
MET 7120 Mechanical Engineering Technology
AutoCAD $2 \quad 2 \quad 3 \quad 3$
$\begin{array}{llllll}\text { MET } & 7121 & \text { Engineering Drawing } 2 \text { with AutoCAD } & 2 & 3 & 3\end{array}$
$\begin{array}{llllll}\text { MET } & 7220 & \text { Plastic Materials and Processes } & 1 & 2 & 3\end{array}$

MET 7320 Advanced CNC Programming | 2 | 3 | 3 |
| :---: | :---: | :---: |
|  |  | 114 |

FOURTH TERM
ENG 1002 English Composition 2 3003
MAT 1192 Algebra and Trigonometry 2 $\quad 4 \quad 0 \quad 4$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |  |
| :--- | :--- | :--- | :--- |
|  | 8 | 40 | 9 |

FIFTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| MET | 7132 | Hydraulics \& Pneumatics 1 | 2 | 3 | 3 |
| MET | 7145 | Statics and Strength of Materials | 2 | 3 | 3 |
| MET | 7230 | Plastic Materials and Processes 2 | 2 | 3 | 3 |
|  |  | 13 | 9 | 16 |  |
| SIXTH TERM |  |  |  |  |  |
| MET | 7125 | Visual BASIC (MET) | 2 | 3 |  |
| ET | 9400 | Cooperative Education - |  | 3 |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 3 | 43 | 5 |  |

## SEVENTH TERM

MET 7111 Engineering Materials $\quad 3 \quad 2 \quad 4$
MET 7152 Hydraulics \& Pneumatics $2 \quad 2 \quad 3 \quad 3$
MET 7198 MET Design Project $1 \quad 2 \begin{array}{lll}6 & 5\end{array}$
MET 7330 CAD-CAM 1

MET 7355 Quality Control with SPC $\quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
| 11 | 17 | 18 |

EIGHTH TERM
SPE 1020 Public Speaking 3003
$\begin{array}{llllll}\text { SOC } & 1521 & \text { Introduction to Sociology } 1 & 3 & 0 & 3\end{array}$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- |
|  | 7 | 40 |
| 8 |  |  |

NINTH TERM

| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MET | 7158 | MET Design Project 2 | 2 | 3 | 3 |
| MET | 7340 | CAD-CAM 2 | 2 | 3 | 3 |
| MET | 7345 | Manufacturing Process Planning |  |  |  |
|  |  | and Estimating | 2 | 3 | 3 |
| MET | 7360 | Manufacturing Quality Processes: |  |  |  |
|  |  | Six Sigma | 2 | 3 | 3 |
| EET | 7706 | Electrical Fundamentals for MET | 2 | 3 | 3 |
|  |  | 13 | 15 | 18 |  |

## TENTH TERM

| CULT 1648 | Social Issues in Technology | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- |
| ET | 9400 | Cooperative Education - <br> Engineering Technologies (Alternating) |  |  |
|  |  | 1 | 40 | 2 |
|  |  | 4 | 40 | $\frac{5}{119}$ |

## Plastics Option (METP)

The MET Plastics program prepares its graduates to function effectively as technicians in the plastics materials and processing industry. In the MET Plastics program students receive specialized training in the areas of thermoplastic, thermoset, and composite materials, blow molds and injection molds, and plastics joining and assembly techniques.

## MECHANICAL ENGINEERING TECHNOLOGY - PLASTICS OPTION

All degree-seeking students must complete the course FYE 9002
College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit


## FIFTH TERM

MAT 1193 Analytic Geometry \& Calculus 1 4 MET 7122 Mechanical Engineering Technology CAD 3
MET 7132 Hydraulics \& Pneumatics
$\begin{array}{lllll}\text { MET } & 7140 & \text { Strength of Materials } & 3 & 3\end{array}$

$\begin{array}{llll}\text { MET } & 7230 & \text { Plastic Materials and Processes } 2 &$| 2 | 3 | 3 |
| :---: | :---: | :---: | H\end{array}

## SIXTH TERM

MET 7125 Visual BASIC (MET) $3 \quad 2 \quad 4$
ET 9400 Cooperative Education -

Engineering Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- |
|  | 42 | 6 |

SEVENTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MET | 7111 | Engineering Materials | 3 | 2 | 4 |
| MET | 7150 | Machine Design 1 | 3 | 3 | 4 |
| MET | 7152 | Hydraulics \& Pneumatics 2 | 2 | 3 | 3 |
| MET | 7355 | Quality Control with SPC | 2 | 3 | 3 |
|  |  | 13 | 11 | 17 |  |
| EIGHTH TERM | 3 | 0 | 3 |  |  |
| SOC | 1521 | Introduction to Sociology 1 |  |  |  |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 40 | 5 |  |

NINTH TERM

| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| MET | 7155 | Machine Design 2 | 3 | 3 | 4 |
| MET | 7240 | Plastic Materials and Processes 3 | 3 | 2 | 4 |
| EET | 7706 | Electrical Fundamentals for MET | 2 | 3 | 3 |
|  |  | 14 | 8 | 17 |  |
| TENTH TERM | 3 | 0 | 3 |  |  |
| CULT | 1648 | Social Issues in Technology |  |  |  |
| ET | 9400 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 40 | $\frac{5}{117}$ |  |  |

## Mechanical Engineering Technology Manufacturing CNC Certificate (METMC)

This certificate is designed for those currently employed in the manufacturing field who desire additional education in the specialized field of CNC programming and Computer Aided Manufacturing. Most students are able to complete the certificate course requirements in one year or less. All courses required for the CNC Certificate may be applied directly toward the two-year Associate of Applied Science degree in the Mechanical Engineering Technology-Manufacturing Management Major.

## MECHANICAL ENGINEERING TECHNOLOGY - MANUFACTURING CNC CERTIFICATE

|  |  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| MET | 7110 | Mechanical Design AutoCAD 1 | 2 | 3 | 3 |
| MET | 7310 | Manufacturing Processes |  |  |  |
|  |  | with CNC Programming | 2 | 3 | 3 |
| MET | 7320 | Advanced CNC Programming | 2 | 3 | 3 |
| MET | 7330 | CAD-CAM 1 | 2 | 3 | 3 |
|  |  |  | 11 | 14 | $\frac{16}{16}$ |

## Multimedia Information Design Department

The Multimedia Information Design Department offers degree programs in Audio/Video Production, Graphic Design, and Multimedia \& Web Design. The department also offers two certificate programs: Electronic Publishing and Web Design.
The Technical and Professional Communication program that was a part of the Multimedia Information Design Department is currently accepting no new students. The program is being redesigned with the expectation of accepting new students some time in 2008.

## Audio/Video Production (AVP)

Program Chair - Dave Killen

## Co-op Coordinator - Andi Feld-Brockett

Students seeking the Audio/Video Production degree prepare for careers in video production, video post-production, and sound design for radio, television, film, Web, or other interactive media. Students learn to operate and maintain digital audio and video equipment, and learn to use industry-standard software applications in Cincinnati State's world-class professional studio facilities.
Currently a significant number of the courses required for the Audio/Video Production degree are scheduled between 8:00 a.m. and 6:00 p.m., Monday through Friday. Some of the required courses also are available in the evening or on weekends. Students should consult frequently with their advisor for current schedule information.
Graduates earn an Associate of Applied Science degree. Job titles for graduates may include Video Editor, Sound Designer, Videographer, Audio/Video Specialist, Compositing Artist, Motion Graphics Designer, or Production Assistant.

## AUDIO/VIDEO PRODUCTION

All degree-seeking students must complete the course FYE 9002, College Survival Skills, as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| HNG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ENG | 4 | 0 | 4 |  |  |
| MAT | 1124 | Business Algebra | 2 | 3 | 3 |
| ART | 1692 | Design 1 |  |  |  |
| IT | 5410 | Cross-Platform Computer Systems | 2 | 2 | 3 |
|  |  | and Applications | 2 | 3 | 3 |
| IT | 5420 | Digital Media Concepts | 13 | 8 | 16 |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| IT | 5220 | Videography, Gripping, and |  |  |  |
|  |  | Lighting Techniques | 2 | 3 | 3 |
| IT | 5441 | Beginning 2D Graphics: Bitmap | 2 | 3 | 3 |
| IT | 5522 | Audio 1: Principles of Audio Recording | 3 | 0 | 3 |
|  |  |  | 6 | 13 |  |

## THIRD TERM

| TC | 5001 | Introduction to |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | Multimedia Information Design Careers | 2 | 0 | 2 |
| TC | 5035 | Scriptwriting for Audio and Video | 2 | 3 | 3 |
| IT | 5221 | Video Production and Editing Basics | 2 | 3 | 3 |
| IT | 5443 | Beginning 2D Graphics: Vector | 2 | 3 | 3 |
| IT | 5523 | Audio 2: Editing and Mixing | 2 | 3 | 3 |
|  |  |  | 10 | 12 | 14 |

## FOURTH TERM

| IT | 5453 | Web Development 1 | 2 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 3 | 43 | 5 |  |

## FIFTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| TC | 5020 | Usability Assessment 1 | 2 | 2 | 3 |
| IT | 5224 | Video Production/Editing: Avid | 3 | 4 | 5 |
| IT | 5225 | Video Post-Production: After Effects | 3 | 4 | 5 |
| IT | 5524 | Audio 3: Production and Sound Design | 3 | 4 | 5 |
|  |  |  | 14 | 21 |  |

SIXTH TERM
CULT 1680 Introduction to Film Studies $1 \quad 2 \quad 3 \quad 3$
IT 9500 Cooperative Education -

Information Technologies (Alternating) | 1 | 40 | 2 |  |
| :--- | :--- | :--- | :--- |
|  | 3 | 43 | 5 |

## SEVENTH TERM

| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| IT | 5445 | Multimedia Design 1 | 2 | 3 | 3 |
| IT | 5545 | Video Post-Production: |  |  |  |
|  |  | 3D Special Effects | 3 | 4 | 5 |
| IT | 55XX | Advanced Audio Elective | 2 | 3 | 3 |
|  |  |  | 10 | 10 |  |

## EIGHTH TERM

| IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| NINTH TERM |  |  |  |  |  |
| CULT | $16 X X$ | Culture Studies Elective | 3 | 0 | 3 |
| IT | 5227 | Video Production/Editing: Final Cut Pro | 3 | 4 | 5 |
| XXX | XXXX | AVP Elective | 2 | 3 | 3 |
|  |  | 8 | 7 | 11 |  |

## TENTH TERM

$\begin{array}{llllll}\text { IT } & 5228 & \text { Audio/Video Capstone Project } & 3 & 3 & 4\end{array}$

IT 5570 Multimedia Portfolio Production $\quad$| 1 | 2 | 2 |
| :--- | :--- | :--- |
| 4 | 5 | 6 |

Competencies required for program admittance:

- Keyboarding skill of minimum 20 wpm
- Ability to use application software

Speech Elective: SPE 1020, SPE 1024
Advanced Audio Elective: IT 5525, IT 5526
Culture Studies Elective: CULT 1646, CULT 1681, CULT 1683
AVP Elective: ART 1685, ART 1690, MKT 1844, IT 5444, IT 5451

## Graphic Design (GRD)

Program Chair - Jason Caudill
Co-op Coordinator - Andi Feld-Brockett
The Graphic Design program prepares students for employment opportunities that require aptitude in two-dimensional and three-dimensional art and design, both traditional and comput-er-based. Students gain skill in digital creation of original art; two-dimensional illustration and animation; three-dimensional modeling and animation; Web design; and basic video shooting and post-processing.
Currently a significant number of the courses required for the Graphic Design degree are scheduled between 8:00 a.m. and 6:00 p.m., Monday through Friday. Some of the required courses also are available in the evening or on weekends. Students should consult frequently with their advisor for current schedule information.
Graduates earn an Associate of Applied Science degree. Job titles for graduates may include Graphic Designer, 3-D Artist, Modeler, Texture Artist, Compositing Artist, and Web Graphics/Interface Designer.

## GRAPHIC DESIGN

All degree-seeking students must complete the course FYE 9002,
College Survival Skills, as part of the first 18 credit hours taken at Cincinnati State

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 4 | 0 | 3 |
| MAT | 1151 | College Algebra | 4 | 0 | 4 |
| ART | 1692 | Design 1 | 2 | 3 | 3 |
| IT | 5410 | Cross-Platform Computer Systems |  |  |  |
|  |  | and Applications | 2 | 2 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
|  |  | 13 | 8 | 16 |  |

## SECOND TERM

ART 1690 Drawing 1 2 3
TC 5001 Introduction to
Multimedia Information Design Careers 22002



## Technical and Professional Communication (TCT)

The Technical and Professional Communication program is not currently accepting students. A program that will prepare students for employment opportunities such as multimedia content specialist, technical communicator and related professional writing areas is under development for 2008. For additional information, call the Center for Innovative Technologies office at (513) 569-1743.

## Electronic Publishing Certificate (ETPC)

Advisor - Pam Ecker
The Electronic Publishing Certificate is for individuals who want to develop skill using software applications that support communication and publishing-related fields. The certificate program helps individuals who want to add new software applications skills to their current knowledge in a business or communicationrelated area. The certificate may provide a foundation for an associate's degree in a communication- or business-related field.

## ELECTRONIC PUBLISHING CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  |  | Hours Per <br> Class | Ceek <br> Lab | Credit <br> Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 2 | 2 | 3 |  |
| ENG | 1018 | Professional Writing Styles 1 | 2 | 2 | 3 |
| TC | 5010 | Visual Literacy | 2 | 3 | 3 |
| IT | 5201 | Information Technology Concepts |  |  |  |
| IT | 5410 | Cross-Platform Computer Systems | 2 | 2 | 3 |
|  |  | and Applications | 2 | 3 | 3 |
| IT | 5420 | Digital Media Concepts | 10 | 12 | 15 |

## SECOND TERM

| OT | 3064 | Introduction to PowerPoint | 2 | 3 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| IT | 5441 | Beginning 2D Graphics: Bitmap | 2 | 3 | 3 |
| IT | 5456 | Desktop Publishing: QuarkXPress | 2 | 3 | 3 |
| IT | XXXX | Database Elective | 2 | 3 | 3 |
|  |  |  | 8 | 12 | 12 |

## THIRD TERM

| TC | 5020 | Usability Assessment 1 | 2 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| IT | 5443 | Beginning 2D Graphics: Vector | 2 | 3 | 3 |
| IT | 5453 | Web Development 1 | 2 | 3 | 3 |

IT XXXX Desktop Publishing Elective $\quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
|  |  | 11 |

FOURTH TERM
TC 50XX Technical Communication Elective $\begin{array}{llll}2 & 3 & 3\end{array}$
XXX XXXX Business Skills Elective $\quad 2 \quad 2 \quad 3$

IT XXXX Computer Applications Elective $\quad$| 2 | 3 | 3 |
| :--- | :--- | :--- |
|  | 6 | 8 |

Computer competencies required for program admittance:

- Keyboarding skill of minimum of 20 wpm
- Ability to use application software

Composition Requirement: Students whose test scores indicate need for additional preparation may be required to complete additional composition courses.
Database Elective: OT 3068, IT 5106, IT 5321
Desktop Publishing Elective: IT 5116, GC 1422, GC 1423
Technical Communication Elective: Program chair consent required. Recommended: TC 5032, TC 5033, TC 5034, TC 5035, TC 5037
Business Skills Elective: Program chair consent required. Must be a course in business concepts, not a computer applications course.
Computer Applications Elective: Program chair consent required.

## Multimedia and Web Design

See Multimedia and Web Design for associate's degree.

## Web Design Certificate (WEBC)

Advisor - David Hoctor
The Web Design Certificate program is intended for individuals currently enrolled in an information technology degree program or currently working in an IT-related field who are seeking to upgrade their skills in the area of multimedia development. The certification is ideal for Web authors, marketing and communication professionals, PR professionals, graphic designers, desktop publishers, technical writers, and library scientists.
Upon completion of the program students are prepared to take the Certified Internet Webmaster Foundations exam. Individuals who successfully pass the CIW Foundations exam earn the title of CIW Associate.

## WEB DESIGN CERTIFICATE

|  |  | Hours Per <br> Class |  | Week <br> Lab | Credit <br> Hours |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ART | 1692 | Design 1 | 2 | 3 | 3 |
| IT | 5410 | Cross-Platform Computer Systems |  |  |  |
|  |  | and Applications | 2 | 2 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
|  |  | 9 | 8 | 12 |  |
| SECOND TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| TC | 5020 | Usability Assessment 1 | 2 | 2 | 3 |
| IT | 5441 | Beginning 2D Graphics: Bitmap | 2 | 3 | 3 |
| IT | 5453 | Web Development 1 | 2 | 3 | 3 |

THIRD TERM

| IT | 5435 | Web Design 1 | 2 | 3 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| IT | 5447 | Beginning 2D Graphics: Web | 2 | 3 | 3 |
| IT | 5454 | Web Development 2: <br> Client-Side Scripting | 2 | 3 | 3 |
| IT | 5580 | Certified Internet Webmaster <br> Foundations | 2 | 3 | 3 |
|  |  | 8 | 12 | 12 |  |

FOURTH TERM
MKT 2901 Principles of Marketing $1 \quad 3 \begin{array}{lll}3\end{array}$
TC 5041 Technical Editing Methods $1 \quad 2 \quad 2 \quad 3$

| IT | 5445 | Multimedia Design 1 | 2 | 3 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| IT | 5455 | Web Development 3: |  |  |  |
|  |  | Server-Side Scripting | 2 | 3 | 3 |
|  |  | 9 | 8 | 12 |  |
| FIFTH TERM |  |  |  |  |  |
| MKT | 1873 | E-Commerce Business Strategy | 2 | 2 | 3 |
| IT | 5570 | Multimedia Portfolio Production | 1 | 2 | 2 |
| XXX | XXXX | Multimedia/Web Elective | 2 | 3 | 3 |

Computer competencies required for program admittance:

- Keyboarding skill of minimum 20 wpm
- Ability to use application software

Multimedia/Web Elective: IT 5221, IT 5271, IT 5321, IT 5322,
IT 5331, IT 5332, IT 5333, IT 5432, IT 5436, IT 5444, IT 5522,
IT 5540, IT 5545, TC 5033, TC 5035

## Network Systems Department

The Network Systems Department offers degree programs in Computer Network Engineering Technology, and Network Administration Technology.

## Computer Network Engineering Technology (CNET)

Program Chair - Paul Weingartner
Co-op Coordinator - Kathy McClusky
The Computer Network Engineering Technology degree program prepares its graduates to enter and advance professionally through technical and mid-management positions in local industry; to successfully enter and pursue baccalaureate degrees; and to effectively design, troubleshoot, implement, maintain, and service computer networks. Emphasis on network security (firewalls and intrusion prevention) and voice-over IP.
Graduates earn an Associate of Applied Science degree. Job titles for CNET graduates may include Network Technician, Electronics Technician, Network Consultant, Hardware Engineering Technician, Technical Support Specialist, QA Technician, Software Technician, or Field Service Technician.
The Computer Network Engineering Technology program is accredited by Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, phone: (410) 347-7700.

## COMPUTER NETWORK ENGINEERING TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| EET | 7710 | DC Circuit Analysis | 5 | 0 | 5 |
| EET | 7711 | DC Circuits Lab | 0 | 3 | 1 |
| EET | 7728 | Digital Combinational Logic | 3 | 3 | 4 |
| ET | 9300 | Technology Career Preparation | 1 | 1 | 1 |
|  |  | 14 | 12 | 18 |  |
| SECOND TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education- |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 7 | 40 | 8 |  |


| THIRD TERM |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
| EET | 7720 | AC Circuit Analysis | 5 | 0 | 5 |
| EET | 7721 | AC Circuits Lab | 0 | 3 | 1 |
| EET | 7738 | Digital Sequential Logic | 3 | 3 | 4 |
|  |  |  | 14 | 9 | 17 |
| FOURTH TERM |  |  |  |  |  |
| PHY | 2291 | Physics 1 <br> (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 9500 | Cooperative Education - | 1 | 40 | 2 |
|  |  | Information Technologies (Alternating) | 4 | 42 | 6 |
| FIFTH TERM |  |  |  |  |  |
| PHY | 2292 | Physics 2 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 5121 | LAN Administration: Windows 1 | 3 | 2 | 4 |
| IT | 5152 | Network Communications 2 | 2 | 3 | 3 |
| EET | 7730 | Electronics 1 | 5 | 3 | 6 |
| EET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
|  |  |  | 16 | 13 | 21 |
| SIXTH TERM |  |  |  |  |  |
| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 5 | 40 | 6 |
| SEVENTH TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SPE | 102X | Speech Elective | 3 | 0 | 3 |
| IT | 5122 | LAN Administration: Windows 2 | 3 | 2 | 4 |
| IT | 5153 | Network Communciations 3 | 2 | 3 | 3 |
| IT | 5453 | Web Development 1 | 2 | 3 | 3 |
|  |  |  | 13 | 8 | 16 |
| EIGHTH TERM |  |  |  |  |  |
| CULT | 1648 | Social Issues in Technology | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |
| NINTH TERM |  |  |  |  |  |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| PHY | 2293 | Physics 3 |  |  |  |
|  |  | (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| IT | 5128 | Networking Design Project | 3 | 2 | 4 |
| IT | 5299 | Current Topics in Computer Network |  |  |  |
|  |  | Engineering Technology | 3 | 3 | 4 |
|  |  |  | 12 | 7 | 15 |
| TENTH TERM |  |  |  |  |  |
| ECO | 15XX | Economics Elective | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |
|  |  |  |  |  | $\overline{117}$ |

Speech Elective: SPE 1020, SPE 1024
Economics Elective: ECO 1512, ECO 1513

## Network Administration Technology (NETAD)

Program Chair - Jeff Vetter
Co-op Coordinator - Kathy McClusky
The Network Administration Technology degree program prepares its graduates for careers in network systems analysis, planning, implementation, and administration. Students gain the necessary software skills to analyze network system needs and to install, operate, troubleshoot, and maintain local and wide area networks. Students obtain knowledge in basic network classifications and topologies, network wiring, server setup and configuration, network operating systems, communication standards for networks, network security, and network applications.

Graduates earn an Associate of Applied Business degree. Job titles for graduates may include Network Administrator, Network Specialist, Network Security Administrator, Network Operations Analyst, Communication Analyst, Network Technician, or Customer Service Coordinator.

## NETWORK ADMINISTRATION TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HIRST TERM |  |  |  |  |  |
| MAT | 11 XX | Algebra Elective | 4 | 0 | 4 |
| IT | 5201 | Information Technology Concepts | 2 | 3 | 3 |
| IT | 5231 | Operating Systems: Windows 1 | 2 | 3 | 3 |
| EET | 7701 | Electronic Fundamentals 1 | 3 | 3 | 4 |
| ET | 9300 | Technology Career Preparation | 1 | 1 | 1 |
|  |  | 12 | 10 | 15 |  |

## SECOND TERM

| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| IT | 5131 | Network Management/Help Desk | 3 | 2 | 4 |
| IT | 5232 | Operating Systems: Windows 2 | 2 | 3 | 3 |
| IT | 5320 | Database Design and SQL | 2 | 3 | 3 |
|  |  | 13 | 8 | 16 |  |

## THIRD TERM

IT 9500 Cooperative Education Information Technologies (Alternating) $140 \quad 2$

## FOURTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
| IT | 5121 | LAN Administration: Windows 1 | 3 | 2 | 4 |
| IT | 5151 | Network Communications 1 | 2 | 3 | 3 |
|  |  |  | 14 | 5 | 16 |

## FIFTH TERM

| IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SIXTH TERM |  |  |  |  |  |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| ECO | $15 X X$ | Economics Elective | 3 | 0 | 3 |
| MKT | 2901 | Principles of Marketing 1 | 3 | 0 | 3 |
| IT | 5122 | LAN Administration: Windows 2 | 3 | 2 | 4 |
| IT | 5154 | Network Security and Legal Issues 1 | 3 | 2 | 4 |
|  |  | 15 | 4 | 17 |  |

## SEVENTH TERM

IT 9500 Cooperative Education -
Information Technologies (Alternating) $140 \quad 2$

## EIGHTH TERM

SPE 1020 Public Speaking $\quad 3 \quad 0 \quad 3$
$\begin{array}{lllllll}\text { IT } & 5155 & \text { Network Security and Legal Issues } 2 & 3 & 2 & 4\end{array}$
$\begin{array}{llllll}\text { IT } & 5291 & \text { Visual BASIC } 1 & 2 & 3 & 3\end{array}$
IT XXXX Technical Elective $\quad 2 \quad 2 \quad 3$

ACC XXXX Accounting Elective $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 13 | 7 | 16 |

## NINTH TERM

IT 9500 Cooperative Education -

| Information Technologies (Alternating) |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| TENTH TERM | 1 | 40 | 2 |  |
| CULT | 1648 | Social Issues in Technology | 3 | 0 |
| LAW | 1823 | Business Law 1 | 3 |  |
| MGT | 2989 | Customer Service Systems | 3 | 0 |
| 3 |  |  |  |  |
| IT | 5125 | LAN Administration: Messaging | 2 | 3 |
| IT | 5128 | Networking Design Project | 3 | 2 |
|  | 3 | 2 | 4 |  |
|  |  |  | 74 | $\frac{17}{105}$ |

Technical Elective: IT 5152, IT 5207, IT 5208, IT 5453
Algebra Elective: MAT 1124, MAT 1151
Economics Elective: ECO 1512, ECO 1513
Accounting Elective: ACC 2911, ACC 2924

## Computer Repair Certificate (CPTR)

Advisor - Linda Pohlgeers
This certificate prepares students for employment as Computer Repair Technicians. The certificate is a valuable add-on for students with associate's degrees in computer-related majors to increase understanding of computer hardware, electronics, wiring, and power distribution systems. The certificate may also be used as a first step toward an associate's degree and satisfies course requirements in the Network Administration Technology and the PC Support and Administration programs.

## COMPUTER REPAIR CERTIFICATE

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  |  | Hours Per Week <br> Class | Credit <br> Hours |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| MAT | 1172 | Technical Mathematics 2 | 4 | 0 | 4 |
| IT | 5231 | Operating Systems: Windows 1 | 2 | 3 | 3 |
| IT | 5232 | Operating Systems: Windows 2 | 2 | 3 | 3 |
| EET | 7701 | Electronic Fundamentals 1 | 3 | 3 | 4 |
| EET | 7705 | Survey of Digital Systems | 3 | 3 | 4 |
| EET | 7707 | Survey of Analog Devices | 3 | 2 | 4 |
| EET | 7716 | Computer Calculations for Electronics | 3 | 3 | 4 |
| EET | 7779 | Computer Repair: Basic | 2 | 3 | 3 |
| EET | 7780 | Computer Repair: General Systems | 2 | 3 | 3 |
| EET | 7781 | Computer Repair: Advanced Systems | 2 | 3 | 3 |
|  |  |  | 30 | 26 | 39 |
|  |  |  |  |  | $\overline{39}$ |

## Programming and Software Development Department

The Programming and Software Development Department offers degree programs in Business Computer Programming and Database Management, and Software Engineering Technology.

## Business Computer Programming and Database Management (BCPDM)

Program Chair - Donald M. Youngpeter, PE
Co-op Coordinator - Ocie Hammond
Advisor: Robert Nields
The Business Computer Programming and Database Management degree program utilizes state-of-the-art programming languages and database technologies to prepare students to design, program, and administer e-business and e-commerce systems on the Internet. The software and programming languages used throughout this curriculum include Visual Basic.NET, SQL Server, Oracle Database, Crystal Reports, HTML, ASP.NET, JavaScript, and XML. Students who complete this degree are eligible for Microsoft certifications.
Students may select a concentration in Advanced .NET Programming, Database Administration, or both.
The Advanced .NET Programming concentration includes these courses:

> IT 5291 Visual Basic 1
> IT 5292 Visual Basic 2
> IT 5293 Visual Basic 3
> IT 5294 Visual Basic 4
> IT 5295 Visual Basic 5

The Database Administration concentration includes these courses:

IT 5291 Visual Basic 1
IT 5231 Operating Systems: Windows 1
IT 5121 LAN Administration: Windows 1
IT 5325 Database Administration 1
IT 5326 Database Administration 2
Graduates earn an Associate of Applied Science degree. Jobs in this field are fast paced, highly technical, and highly paid. Job titles for graduates include Computer Programmer/Analyst, Database Systems Programmer/Analyst, Internet Database Administrator (eDBA), and Senior Information Technology Programmer/Analyst.
A majority of the BCPDM degree courses are taught 100\% online using short, easy to follow Internet-based videos along with WebEx and Microsoft Live Meeting for web conferences and online meetings with the instructor. This advanced online course delivery system provides the flexibility to quickly complete degree requirements at a time and place that are convenient for the student.

## BUSINESS COMPUTER PROGRAMMING AND DATABASE MANAGEMENT

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.


## SEVENTH TERM

| IT | 5323 | Database Programming \& |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Administration: Oracle 1 | 2 | 3 | 3 |
| IT | 5329 | Data Reporting: Crystal Reports | 2 | 3 | 3 |
| IT | 5332 | Internet Programming: JavaScript | 2 | 3 | 3 |
| IT | 5361 | BCP Design Project 1 | 2 | 3 | 3 |
| IT | 5XXX | Technical Elective 3 | 2 | 3 | 3 |
|  |  |  | 10 | 15 | 15 |
| EIGHTH TERM |  |  |  |  |  |
| ECO | 1512 | Microeconomics | 3 | 0 | 3 |
| IT | 5362 | BCP Design Project 2 | 2 | 3 | 3 |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 6 | 43 | 8 |
| NINTH TERM |  |  |  |  |  |
| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| IT | 5324 | Database Programming \& |  |  |  |
|  |  | Administration: Oracle 2 | 2 | 3 | 3 |
| IT | 5333 | Internet Programming: XML | 2 | 3 | 3 |
| IT | 5363 | BCP Design Project 3 | 2 | 3 | 3 |
| IT | 5420 | Digital Media Concepts | 2 | 3 | 3 |
| IT | 5XXX | Technical Elective 4 | 2 | 3 | 3 |
|  |  |  | 13 | 15 | 18 |
| TENTH TERM |  |  |  |  |  |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  |  | 4 | 40 | 5 |
|  |  |  |  |  | 108 |

Technical Electives - Programming Concentration: IT 5292, IT 5293, IT 5294, and IT 5295
Technical Electives - Database Concentration: IT 5231, IT 5121,
IT 5325, and IT 5326

## Software Engineering Technology (SET)

Program Chair - Steve Yelton, P.E.
Co-op Coordinator - Ocie Hammond Advisors - Pat Callahan and Linda Pohlgeers
The Software Engineering Technology program emphasizes skills needed to design, develop, implement, and maintain computer operating systems and software using industry-standard programming languages. The SET program also includes study in the areas of Visual C, Visual Basic, internet programming, and database applications.
With academic advisor consent, students select a concentration in Instrumentation or in Programming.
The Instrumentation concentration includes these courses:
EET 7701 Electronic Fundamentals 1
EET 7707 Survey of Analog Devices
CPET 7728 Digital Combinational Logic
CPET 7748 Microprocessor Systems 1
The Programming concentration includes these courses:
EET 7701 Electronic Fundamentals 1
IT 5331 Internet Programming: ASP
IT 5271 Java Programming 1
IT 5272 Java Programming 2
Students who complete the program earn an Associate of Applied Science degree and are prepared to continue their education in bachelor's degree programs in Computer Science or Computer Engineering.
Cooperative education is an integral part of the Software Engineering Technology program and is used to reinforce skills learned in the classroom.
Job titles for graduates may include Systems Analyst, Programmer/Analyst, Operating System Analyst, Software

Designer, Software Applications Specialist, Test Specialist, or Software Applications Support Specialist.

## SOFTWARE ENGINEERING TECHNOLOGY - INSTRUMENTATION CONCENTRATION

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab <br> Hours |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ENST TERM | 1001 | English Composition 1 |  |  |  |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 0 | 3 |
| IT | 5291 | Visual BASIC 1 | 3 | 2 | 4 |
| IT | 5320 | Database Design and SQL | 2 | 3 | 3 |
| IT | 5453 | Web Development 1: HTML | 2 | 3 | 3 |
|  |  | 2 | 3 | 3 |  |
|  |  | 12 | 11 | 16 |  |
| SECOND TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| IT | 5275 | C++ Programming 1 | 3 | 3 | 4 |
| IT | 5292 | Visual BASIC 2 | 2 | 3 | 3 |
| IT | 5332 | Internet Programming: JavaScript | 2 | 3 | 3 |
| EET | 7701 | Electronic Fundamentals 1 | 3 | 3 | 4 |
| ET | 9300 | Technology Career Preparation | 1 | 1 | 1 |
|  |  |  | 14 | 13 | 18 |
| THIRD TERM |  |  |  |  |  |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| EET | 7707 | Survey of Analog Devices | 3 | 2 | 4 |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 8 | 42 | 10 |  |

FOURTH TERM

| PHY | 2291 | Physics 1 (Algebra and Trigonometry Based) | 3 | 2 | 4 |
| :--- | :--- | :--- | :--- | :---: | :---: |
| CPET | 7728 | Digital Combination Logic | 3 | 3 | 4 |
| IT | 5276 | C++ Programming 2 | 3 | 3 | 4 |
| IT | 5293 | Visual BASIC 3 | 2 | 3 | 3 |
| IT | 5321 | Database Programming \& |  |  |  |
|  |  | Administration: SQL Server 1 | 2 | 3 | 3 |
|  |  | 13 | 14 | 18 |  |

## FIFTH TERM

PHY 2292 Physics 2 (Algebra and Trigonometry Based) 3024
IT 9500 Cooperative Education -

Information Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- |
|  | 42 | 6 |

## SIXTH TERM

| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CPET | 7748 | Microprocessor Systems 1 | 3 | 3 | 4 |
| IT | 5277 | Object Oriented Programming: C++ | 3 | 3 | 4 |
| IT | 5294 | Visual BASIC 4 | 2 | 3 | 3 |
| IT | 5331 | Internet Programming: ASP | 2 | 3 | 3 |
|  |  | 14 | 12 | 18 |  |
| SEVENTH TERM |  |  |  |  |  |
| IT | 5278 | Visual C++ Programming 1 | 3 | 4 |  |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 43 | 6 |  |

EIGHTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MGT | 2996 | Project Management | 3 | 0 | 3 |
| IT | 5295 | Visual BASIC 5 | 2 | 3 | 3 |
| IT | 5380 | Software Engineering Technology Project | 2 | 3 | 3 |
|  |  | 10 | 6 | 12 |  |
| NINTH TERM | 3 | 0 | 3 |  |  |
| CULT 1648 | Social Issues in Technology |  |  |  |  |
| IT | 9500 | Cooperative Education - |  |  |  |
|  |  | Information Technologies (Alternating) | 1 | 40 | 2 |
|  |  | 4 | 40 | 5 |  |

## TENTH TERM

$\begin{array}{llllll}\text { PSY } & 1505 & \text { Introduction to Psychology 1 } & 3 & 0 & 3\end{array}$

Speech Elective: SPE 1020, SPE 1024
Economics Elective: ECO 1512, ECO 1513

## SOFTWARE ENGINEERING TECHNOLOGY - PROGRAMMING CONCENTRATION

All degree-seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at Cincinnati State

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hoours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 2 | 4 |  |
| IT | 5291 | Visual BASIC 1 | 2 | 3 | 3 |
| IT | 5320 | Database Design and SQL | 2 | 3 | 3 |
| IT | 5453 | Web Development 1 | 2 | 3 | 3 |
|  |  | 12 | 11 | 16 |  |

## SECOND TERM

ENG 1002 English Composition 2 3003

| IT | 5275 | C++ Programming 1 | 3 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |

IT 5292 Visual BASIC 2
$\begin{array}{llllll}\text { IT } & 5332 & \text { Internet Programming: JavaScript } & 2 & 3 & 3\end{array}$
EET 7701 Electronic Fundamentals $1 \quad 3 \quad 3 \quad 4$
ET 9300 Technology Career Preparation $\quad \begin{array}{ccc}1 & 1 & 1 \\ & & 13\end{array}$
THIRD TERM

| SPE | 102 X | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |

MAT 1192 Algebra and Trigonometry 2 4 0 4
IT 9500 Cooperative Education -

| Information Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- | :--- |
|  | 8 | 40 | 9 |

FOURTH TERM
PHY 2291 Physics 1
(Algebra and Trigonometry Based) $3 \quad 2 \quad 4$
$\begin{array}{llllll}\text { IT } & 5276 & \text { C++ Programming } 2 & 3 & 3 & 4\end{array}$
IT 5293 Visual BASIC 3 $\quad 2 \quad 3 \quad 3$
IT 5321 Database Programming \&

Administration: SQL Server $1 \quad$| 2 | 3 | 3 |
| :---: | :---: | :---: |
|  | 11 | 14 |

FIFTH TERM
PHY 2292 Physics 2
(Algebra and Trigonometry Based) $3 \quad 2 \quad 4$
IT 9500 Cooperative Education -

Information Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- |
|  | 4 | 42 |

SIXTH TERM

| MAT | 1193 | Analytic Geometry \& Calculus 1 | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| IT | 5271 | Java 1 | 2 | 3 | 3 |
| IT | 5277 | Object Oriented Programming: C++ | 3 | 3 | 4 |
| IT | 5294 | Visual BASIC 4 | 2 | 3 | 3 |
| IT | 5331 | Internet Programming: ASP | 2 | 3 | 3 |
|  |  | 13 | 12 | 17 |  |

## SEVENTH TERM

$\begin{array}{llllll}\text { IT } & 5278 & \text { Visual C++ Programming } 1 & 3 & 3 & 4\end{array}$
IT 9500 Cooperative Education -

Information Technologies (Alternating) | 1 | 40 | 2 |
| :--- | :--- | :--- |
|  | 43 | 6 |

EIGHTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MGT | 2996 | Project Management | 3 | 0 | 3 |
| IT | 5272 | Java 2 | 2 | 3 | 3 |
| IT | 5295 | Visual BASIC 5 | 2 | 3 | 3 |
| IT | 5380 | Software Engineering Technology Project | 2 | 3 | 3 |
|  |  |  | 9 | 15 |  |


| NINTH TERM |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| CULT | 1648 | Social Issues in Technology |  |  |
| IT | 9500 | Cooperative Education - <br> Information Technologies (Alternating) | 3 | 0 |

Speech Elective: SPE 1020, SPE 1024
Economics Elective: ECO 1512, ECO 1513

## Aviation Maintenance Technologies Department

Program Chair - James Schmid
Co-op Coordinator - Sue Dolan
The Aviation Maintenance Technologies Department offers an FAA-approved degree program in Aviation Maintenance Technology, and three certificate programs. The Avionics Certificate provides advanced skills for students who are FAAcertified aviation mechanics. The Aviation Maintenance Airframe Certificate and Aviation Maintenance Powerplant Certificate prepare students to take FAA licensing tests.
All technical courses are conducted at the Cincinnati West Airport site in Harrison, Ohio. Some non-technical courses are offered at the Cincinnati West site, or may be taken on the main campus.

## Aviation Maintenance Technology (AMT)

This two-year program prepares students to perform inspections and repairs on all types of aircraft, approving them for flight after maintenance has been performed. Classroom study involves learning every system of the aircraft and developing mechanical skills on the fleet of aircraft that Cincinnati State owns. In addition, students have opportunities to co-op with a variety of aircraft operators ranging from general aviation to jet airliners.
The FAA has approved this program under Part 147 of the Federal Aviation Regulations (Air Agency Certificate Number AD9T00R). Graduates earn an Associate of Applied Science degree and are eligible to test for the FAA Aviation Mechanic Certificate with Airframe and Powerplant ratings. Certification requirements are subject to current Federal Aviation Requirements and may change without notice.

## AVIATION MAINTENANCE TECHNOLOGY

All degree-seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at
Cincinnati State.
Hours Per Week Credit

| $\substack{\text { Hours Per Week } \\ \text { Class } \\ \text { Lab }}$ | Credit <br> Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |

FIRST TERM

| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| AVT | 8100 | Aircraft Orientation | 4 | 4 | 5 |
| AVT | 8101 | Materials \& Processes 1 | 2 | 3 | 3 |
| AVT | 8102 | Aerodynamics \& FAA Regulations | 3 | 2 | 3 |
|  |  | 15 | 12 | 18 |  |
| SECOND TERM | 4 | 0 | 4 |  |  |
| MAT | 1172 | Technical Mathematics 2 | 2 | 3 | 3 |
| PHY | 2222 | Technical Physics 2 | 2 | 2 | 2 |


| AVT | 8107 | Materials \& Processes 2 | 4 | 6 | 6 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| AVT | 8108 | Aircraft Electricity | 3 | 2 | 3 |
| AVT | 8109 | Cleaning \& Corrosion Control | 2 | 3 | 3 |
|  |  |  | 17 | 16 | 21 |

## THIRD TERM

| MAT | 1173 | Algebra \& Trigonometry 2 with Statistics | 4 | 0 | 4 |
| :--- | :--- | :--- | :--- | :---: | :---: |
| PHY | 2223 | Technical Physics 3 | 2 | 3 | 3 |
| AVT | 8130 | Airframe Structures 1 | 3 | 7 | 5 |
| AVT | 8132 | Aircraft Electrical \& Generating Systems | 4 | 6 | 6 |
| AVT | 8143 | Airframe Hydraulic \& Pneumatic Systems | 1 | 4 | 2 |
|  |  | 14 | 20 | 20 |  |
| FOURTH TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| AVT | 8140 | Airframe Structures 2 | 3 | 7 | 5 |
| AVT | 8142 | Assembly \& Rigging | 3 | 7 | 5 |
| AVT | 8151 | Landing Gear Systems | 3 | 7 | 5 |
|  |  | 12 | 21 | 18 |  |

## FIFTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| AVT | 8131 | Welding Processes | 1 | 4 | 2 |
| AVT | 8150 | Airframe Electronic \& Instrument Systems | 4 | 6 | 6 |
| AVT | 8152 | Airframe Inspection | 1 | 4 | 2 |
| AVT | 8154 | Airframe Systems | 4 | 6 | 6 |
|  |  | 13 | 20 | 19 |  |

## SIXTH TERM

| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| ECO | $15 X X$ | Economics Elective | 3 | 0 | 3 |
| AVT | 8172 | Ignition Systems | 4 | 6 | 6 |
| AVT | 8180 | Engine Systems \& Inspection | 5 | 5 | 5 |
|  |  |  | 15 | 11 |  |

SEVENTH TERM

| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| AVT | 8160 | Powerplant Theory \& Maintenance 1 | 5 | 5 | 7 |
| AVT | 8162 | Propellers | 4 | 4 | 4 |
| ET | 9401 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Parallel) | 1 | 20 | 1 |
|  |  | 13 | 29 | 15 |  |

## EIGHTH TERM

| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| AVT | 8170 | Powerplant Theory \& Maintenance 2 | 5 | 5 | 7 |
| AVT | 8171 | Powerplant Fuel Metering Systems 1 | 5 | 5 | 5 |
| ET | 9401 | Cooperative Education - |  |  |  |
|  | Engineering Technologies (Parallel) | 1 | 20 | 1 |  |
|  |  | 14 | 30 | 16 |  |

NINTH TERM

| AVT | 8181 | Engine Inspection | 4 | 4 | 5 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| AVT | 8183 | Powerplant Theory \& Maintenance 3 | 5 | 5 | 7 |
| ET | 9401 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Parallel) | 1 | 20 | 1 |
|  |  | 10 | 29 | 13 |  |

TENTH TERM

| PHI | 1625 | Ethics | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| AVT | 8161 | Powerplant Lubrication | 3 | 2 | 4 |
| AVT | 8182 | Engine Instruments \& Fire Protection | 2 | 3 | 3 |
| ET | 9401 | Cooperative Education - | Engineering Technologies (Parallel) | 1 | 20 |
|  |  |  | 25 | $\frac{11}{168}$ |  |

Economics Elective: ECO 1512, ECO 1513

## Avionics Certificate (AVONC)

The Avionics Certificate provides advanced skills in aviation electronics for students who are FAA-certified aviation mechanics. When taken in conjunction with Aviation Maintenance Technology the Avionics certificate requires only three additional courses. Graduates are able to troubleshoot and repair, in a flight line environment, onboard computers, automatic pilot, instrument navigation and communication equipment, and
powerplant electronic control systems. Potential employers include corporate aviation departments and airlines. Certification requirements are subject to current Federal Aviation Requirements and may change without notice.

## AVIONICS CERTIFICATE

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| MAT | 1191 | Algebra and Trigonometry 1 | 3 | 2 | 4 |
| MAT | 1192 | Algebra and Trigonometry 2 | 4 | 0 | 4 |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| PHY | 2222 | Technical Physics 2 | 2 | 3 | 3 |
| PHY | 2223 | Technical Physics 3 | 2 | 3 | 3 |
| AVT | 8100 | Aircraft Orientation | 4 | 4 | 5 |
| AVT | 8101 | Materials \& Processes 1 | 2 | 3 | 3 |
| AVT | 8102 | Aerodynamics \& FAA Regulations | 3 | 2 | 3 |
| AVT | 8106 | Aircraft Drawings | 2 | 2 | 2 |
| AVT | 8107 | Materials \& Processes 2 | 4 | 6 | 6 |
| AVT | 8108 | Aircraft Electricity | 3 | 2 | 3 |
| AVT | 8109 | Cleaning \& Corrosion Control | 2 | 3 | 3 |
| AVT | 8132 | Aircraft Electrical \& Generating Systems | 4 | 6 | 6 |
| AVT | 8150 | Airframe Electronic and |  |  |  |
|  |  | Instrument Systems | 4 | 6 | 6 |
| AVT | 8154 | Airframe Systems | 4 | 6 | 6 |
| AVT | 8182 | Engine Instruments \& Fire Protection | 2 | 3 | 3 |
| AVT | 8200 | Avionics Orientation | 3 | 2 | 4 |
| AVT | 8201 | Avionics 1 | 3 | 2 | 4 |
| AVT | 8202 | Avionics 2 | 3 | 2 | 4 |
|  |  |  |  |  |  |
|  |  |  | 65 | 60 | 84 |

Prerequisites for Admission: Scores on the COMPASS Test (Admissions Test) must indicate the student is: a) Ready to begin Algebra 1 (MAT
1191); b) Ready to begin College English (ENG 1001); c) Capable of College Reading Level.

## Aviation Maintenance Certificates (AVAC and AVPC)

The Aviation Maintenance Technology program includes two certificate programs, Aviation Mechanics Airframe and Aviation Mechanics Powerplant. Following successful completion of the Airframe and/or Powerplant certificate requirements students may take FAA licensing tests. Certification requirements are subject to current Federal Aviation Requirements and may change without notice.

## AVIATION MECHANICS AIRFRAME CERTIFICATE

|  |  |  | Hours Per <br> Class | Week <br> Lab | Credit <br> Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| MAT | 1172 | Technical Mathematics 2 | 4 | 0 | 4 |
| MAT | 1173 | Algebra \& Trigonometry 2 with Statistics | 4 | 0 | 4 |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| PHY | 2222 | Technical Physics 2 | 2 | 3 | 3 |
| PHY | 2223 | Technical Physics 3 | 2 | 3 | 3 |
| AVT | 8100 | Aircraft Orientation | 4 | 4 | 5 |
| AVT | 8101 | Materials \& Processes 1 | 2 | 3 | 3 |
| AVT | 8102 | Aerodynamics \& FAA Regulations | 3 | 2 | 3 |
| AVT | 8106 | Aircraft Drawings | 2 | 2 | 2 |
| AVT | 8107 | Materials \& Processes 2 | 4 | 6 | 6 |
| AVT | 8108 | Aircraft Electricity | 3 | 2 | 3 |
| AVT | 8109 | Cleaning \& Corrosion Control | 2 | 3 | 3 |


| AVT | 8130 | Airframe Structures 1 | 3 | 7 | 5 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| AVT | 8131 | Welding Processes | 1 | 4 | 2 |
| AVT | 8132 | Aircraft Electrical \& Generating Systems | 4 | 6 | 6 |
| AVT | 8140 | Airframe Structures 2 | 3 | 7 | 5 |
| AVT | 8142 | Assembly \& Rigging | 3 | 7 | 5 |
| AVT | 8143 | Airframe Hydraulic \& Pneumatic Systems | 1 | 4 | 2 |
| AVT | 8150 | Airframe Electronic and |  |  |  |
|  |  | Instrument Systems | 4 | 6 | 6 |
| AVT | 8151 | Landing Gear Systems | 3 | 7 | 5 |
| AVT | 8152 | Airframe Inspection | 1 | 4 | 2 |
| AVT | 8154 | Airframe Systems | 4 | 6 | 6 |
| AVT | 8155 | Airframe Comprehensive | 2 | 1 | 2 |
|  |  |  | 73 | 90 | 98 |
|  |  |  |  | 98 |  |

## AVIATION MECHANICS POWERPLANT CERTIFICATE

|  |  | Hours Per <br> Class <br> Leek | Credit <br> Hours |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| MAT | 1171 | Technical Mathematics 1 | 4 | 0 | 4 |
| MAT | 1172 | Technical Mathematics 2 | 4 | 0 | 4 |
| MAT | 1173 | Algebra \& Trigonometry 2 with Statistics | 4 | 0 | 4 |
| PHY | 2221 | Technical Physics 1 | 2 | 3 | 3 |
| PHY | 2222 | Technical Physics 2 | 2 | 3 | 3 |
| PHY | 2223 | Technical Physics 3 | 2 | 3 | 3 |
| AVT | 8100 | Aircraft Orientation | 4 | 4 | 5 |
| AVT | 8101 | Materials \& Processes 1 | 2 | 3 | 3 |
| AVT | 8102 | Aerodynamics \& FAA Regulations | 3 | 2 | 3 |
| AVT | 8106 | Aircraft Drawings | 2 | 2 | 2 |
| AVT | 8107 | Materials \& Processes 2 | 4 | 6 | 6 |
| AVT | 8108 | Aircraft Electricity | 3 | 2 | 3 |
| AVT | 8109 | Cleaning \& Corrosion Control | 2 | 3 | 3 |
| AVT | 8160 | Powerplant Theory \& Maintenance 1 | 5 | 5 | 7 |
| AVT | 8161 | Powerplant Lubrication | 3 | 2 | 4 |
| AVT | 8162 | Propellers | 4 | 4 | 4 |
| AVT | 8170 | Powerplant Theory \& Maintenance 2 | 5 | 5 | 7 |
| AVT | 8171 | Powerplant Fuel Metering Systems 1 | 5 | 5 | 5 |
| AVT | 8172 | Ignition Systems | 4 | 6 | 6 |
| AVT | 8180 | Engine Systems \& Inspection | 5 | 5 | 5 |
| AVT | 8181 | Engine Inspection | 4 | 4 | 5 |
| AVT | 8182 | Engine Instruments \& Fire Protection | 2 | 3 | 3 |
| AVT | 8183 | Powerplant Theory \& Maintenance 3 | 5 | 5 | 7 |
| AVT | 8185 | Powerplant Comprehensive | 2 | 1 | 2 |
|  |  |  | 88 | 76 | 107 |
|  |  |  |  |  | 107 |

## Health and Public Safety Division

Main Phone Number: (513) 569-1670

The Health and Public Safety Division at Cincinnati State brings together in one unit all programs for the education and training of health and public safety personnel as well as the Biological Sciences department. When available, the division's programs are accredited or approved by their respective professional bodies.
The Health and Public Safety Division offers clinically and experientially intensive associate's degree and certificate programs that prepare students to seek employment in their chosen field of study immediately following graduation.

The Biological Sciences department offers a range of courses to meet program needs and to support science requirements for students who seek associate's degrees and wish to transfer to institutions that offer bachelor's degrees.
The Public Safety programs work in collaboration with the Mid-America Public Safety Institute (MAPSI), a regional partnership of Cincinnati State, Butler Tech, and Great Oaks Institute of Technology. Prerequisite courses for all Health and Public Safety Division programs are available at Cincinnati State. Additionally, the division, in partnership with Cincinnati State's Workforce Development Center, offers special courses, workshops, seminars, and forums. These programs allow participants to learn new skills or update the knowledge and skills needed to perform effectively on the job. The division affiliates with area hospitals, health care agencies, fire service organizations, and other educational programs to provide clinical and experiential learning opportunities for health and public safety students.
All students must complete the college orientation course FYE 9002, College Survival Skills, within the first 18 credit hours taken at Cincinnati State.

## Entrance Competencies

In order to ensure a high degree of success in academic studies in health technologies, entering students must meet established academic levels in mathematics, communication skills, and reading comprehension. To aid in determining these levels, entering students are required to take COMPASS, the college admissions/placement test. If testing and previous academic background indicate that a student has not reached the necessary preparatory level, a divisional advisor will assist in preparing a program of classes to help the student reach those levels. Preparatory classes are available on a year-round basis.

## Cooperative Education

The Health and Public Safety Division supports the College's mission of providing a combination of theory and practice with its well-established tradition of including experience in the clinical setting as an integral part of the educational process. Both clinical and cooperative education components provide students with the practical experience they need to begin work immediately upon graduation. Refer to individual program descriptions for specific information.

## Health Excel Services

Health Excel provides Cincinnati State Health and Public Safety students with a comprehensive range of educational and professional support services to enhance classroom learning and assist in professional development. Support services available to students include special seminars; individualized tutorial assistance; career, personal, and financial counseling; job shadowing opportunities; mentoring; writing and study skills assistance; and developing a re-entry plan following failure in a technical program.

## Transfer Module

The Ohio Board of Regents developed the transfer module to facilitate transfer of credits from one Ohio public college or university to another. The transfer module contains 54 to 60 quarter hours of course credits in the areas of English, mathematics, arts and humanities, social and behavioral sciences, natural and physical sciences, and interdisciplinary studies. A transfer module completed at one college or university automatically meets the requirements for the transfer module at another college or
university once the student is admitted. For additional information, see the "State of Ohio Policy for Institutional Transfer" and the "Transfer Module" sections of the College catalog.
Associate's degree programs in the Health and Public Safety Division contain in their curriculums many of the required courses for the Cincinnati State Transfer Module. Students who wish to complete the transfer module should schedule the additional courses at their convenience. Students who transfer to an Ohio public university for baccalaureate degrees will find that the Cincinnati State Associate of Applied Science degree combined with a transfer module showing grades of " C " or higher, receives preferential consideration at the receiving institution.

## Biotechnology (BIOT)

Ohio Board of Regents approval for the Biotechnology program is pending.
Biotechnology technicians perform procedures in chemical and bio-manufacturing, pharmaceutical manufacturing, and research laboratories. Advanced studies of biology and chemistry, as well as laboratory skills are desirable to embark upon a career in biotechnology.
The biotechnology curriculum is designed to provide foundational coursework for students seeking to transfer to universities offering baccalaureate degrees in biotechnology, including the University of Cincinnati. The coursework includes freshman level biology and chemistry, cell biology, genetics, microbiology, laboratory techniques, and immunochemistry as well as a capstone experience in biotechnology. The completion of the curriculum may lead to employment as a biotechnologist or serve as the first two years of a baccalaureate degree in biotechnology.

## BIOTECHNOLOGY MAJOR

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per <br> Class | Week <br> Lab | Credit <br> Hours |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 4 | 0 | 4 |  |
| MAT | 1151 | College Algebra | 3 | 4 | 5 |
| BIO | 4081 | Biology 1 | 2 | 3 | 3 |
| CLT | 4301 | Basic Laboratory Techniques | 2 | 9 | 7 |
|  |  |  |  | 12 |  |

## SECOND TERM

| MAT | 1111 | Statistics 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| OT | 1850 | Introduction to Computer Applications | 3 | 2 | 4 |
| BIO | 4082 | Biology 2 | 3 | 4 | 5 |
|  |  | 9 | 6 | 12 |  |

## THIRD TERM

| MAT | 1112 | Statistics 2 | 3 | 0 | 3 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| CHE | 2251 | Freshman Chemistry 1 | 4 | 3 | 5 |
| BIO | 4083 | Biology 3 | 3 | 4 | 5 |
|  |  | 10 | 7 | 13 |  |

## FOURTH TERM

| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| CHE | 2252 | Freshman Chemistry 2 | 4 | 3 | 5 |
| OT | 3068 | Database Management: Access 1 | 2 | 3 | 3 |
|  |  | 12 | 6 | 14 |  |
| FIFTH TERM |  |  |  |  |  |
| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| SPE | $10 X X$ | Speech Elective | 3 | 0 | 3 |
| CHE | 2253 | Freshman Chemistry 3 | 4 | 3 | 5 |
| MCH | 4884 | Cultural Competency |  |  |  |
|  | for Health and Public Safety Professions | 3 | 0 | 3 |  |
|  |  | 13 | 3 | 14 |  |

## SIXTH TERM

| ENG | 1015 | Technical Writing 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PHI | 16 XX | Philosophy Elective | 3 | 0 | 3 |
| CLT | 4011 | Microbiology Principles and Techniques | 2 | 6 | 4 |
| CLT | 4024 |  |  |  |  |
|  |  | Immunology and |  |  |  |
|  |  | Immunochemical Methods | 4 | 3 | 5 |
|  |  | 12 | 9 | 15 |  |

## SEVENTH TERM

| CHE | 2281 | Organic Chemistry 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| CHE | 2284 | Organic Chemistry Laboratory 1 | 0 | 4 | 2 |
| BIO | 4092 | Cell Biology | 3 | 4 | 5 |
|  |  | 6 | 8 | 10 |  |

## EIGHTH TERM

| LIT | 1058 | Introduction to Literature | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| CHE | 2282 | Organic Chemistry 2 | 3 | 0 | 3 |
| CHE | 2285 | Organic Chemistry Laboratory 2 | 0 | 4 | 2 |
| BIO | 4093 | Genetics | 3 | 4 | 5 |
|  |  | 9 | 8 | 13 |  |

## NINTH TERM

CHE 2283 Organic Chemistry 3 3003
CHE 2286 Organic Chemistry Laboratory $3 \quad 0 \quad 4 \quad 2$
BIO 4097 Biotechnology Capstone Project $1 \quad 3 \quad 2$
$4 \quad 7 \quad 7$

Speech Elective (choose one): SPE 1020, SPE 1023, SPE 1024, SPE 1027
Philosophy Elective (choose one): PHI 1620, PHI 1621, PHI 1625, PHI 1626, PHI 1630, PHI 1631

## Clinical Laboratory Technician Program (CLT)

Program Chair - Janelle Gohn, MT (ASCP) SM
Clinical laboratory technicians play a vital role on the health care team, assisting physicians in diagnosing and treating patients. Students learn scientific theories and employ sophisticated laboratory instruments, equipment, and processes. Clinical laboratory technicians may find career opportunities in hospitals, commercial reference laboratories, clinics, research laboratories, government institutions, veterinary laboratories, and industry.
Clinical laboratory technicians perform a full range of laboratory tests from basic body fluid analysis to more complex tests to detect cancer, anemia, diabetes, heart disease, kidney disease, and various infectious diseases. Clinical laboratory technician responsibilities may also include interpreting results, quality control, and quality assurance. They may work in several major areas of the laboratory or specialize in one or two departments within the laboratory such as chemistry where they analyze biochemical compounds found in the body including glucose, urea, sodium, potassium chloride, lipids, and enzymes; hematology where they quantify and analyze red and white blood cells and blood clotting mechanisms; microbiology where they identify microorganisms found in specimens such as urine, sputum, fluids, and wounds and determine the susceptibility of bacteria to antibiotics; blood bank (immunohematology) where they determine compatibility of blood transfusions between donor and patient; or immunology/serology where they examine specimens for antibodies against various diseases.
The Clinical Laboratory Technician program leads to an Associate of Applied Science degree. The program includes two unpaid clinical laboratory rotations and four terms of paid cooperative employment. The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mawr Avenue, Suite 670, Chicago, Illinois,

60631, phone: (773) 714-8880. Successful completion of the curriculum enables students to apply to take a national certification exam. Graduates may apply to the American Society for Clinical Pathology Board of Registry to obtain certification as a Medical Laboratory Technician, MLT (ASCP), or the National Certification Agency for Medical Laboratory Personnel to obtain certification as a Clinical Laboratory Technician, CLT (NCA).

## CLINICAL LABORATORY TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per <br> Class | Week <br> Lab | Credit <br> Hours |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 4 | 0 | 4 |  |
| MAT | 1151 | College Algebra | 3 | 3 | 4 |
| CHE | 2231 | Fundamentals of General Chemistry | 3 | 3 | 4 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| CLT | 4301 | Basic Laboratory Techniques | 2 | 3 | 3 |
| CLT | 4321 | Intro. to Clinical Laboratory Science | 0.5 | 1.5 | 1 |
|  |  | 12.5 | 9.5 | 16 |  |

## SECOND TERM

| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CHE | 2236 | Physiological Chemistry | 3 | 3 | 4 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| CLT | 4302 | Basic Hematology and Hemostasis | 2 | 6 | 4 |
| CLT | 4303 | Basic Urinalysis/Body Fluids | 2 | 3 | 3 |
|  |  | 13 | 14 | 18 |  |

THIRD TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| CLT | 4304 | Clinical Chemistry | 3 | 6 | 5 |
| CLT | 4307 | Hematology \& Hemostasis 2 | 2 | 3 | 3 |
| CLT | 4317 | Instrumentation for the |  |  |  |
|  |  | Clinical Laboratory | 1 | 3 | 2 |
|  |  | 12 | 14 | 17 |  |

FOURTH TERM

| SPE | 1024 | Group Dynamics \& Problem Solving | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PSY | 15 XX | Psychology Elective | 3 | 0 | 3 |
| CLT | 4311 | Clinical Applications 1 - <br>  | Hematology and Coagulation <br> CLT | 4312 | Clinical Applications 2 - |
|  |  | Clinical Chemistry and Urinalysis | 6 | 2 |  |
| CLT | 4340 | Introduction to Phlebotomy Techniques | 0 | 6 | 2 |
| CLT | 4350 | Orientation to the Clinical Lab | 0 | 3 | 1 |
|  |  |  | 6 | 23 | 12 |

## FIFTH TERM

| CLT | 4353 | Clinical Laboratory Practice | 1 | 40 | 6 |
| :--- | :--- | :--- | :--- | :---: | :---: |
| SIXTH TERM |  |  |  |  |  |
| CLT | 4011 | Microbiology Principles and Techniques | 2 | 6 | 4 |
| CLT | 4024 | Immunology and |  |  |  |
| CLT | 9374 | Immunochemical Methods <br> Parallel Cooperative Education - | Clinical Laboratory Technology | 4 | 3 |
| 5 | 1 | 5 |  |  |  |
|  |  | 7 | 29 | 10 |  |

## SEVENTH TERM

| ENG | 10XX | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CLT | 4306 | Clinical Microbiology | 3 | 6 | 5 |
| CLT | 9374 | Parallel Cooperative Education - |  |  |  |
|  |  | Clinical Laboratory Technology | 1 | 20 | 1 |
|  |  | 7 | 26 | 9 |  |

EIGHTH TERM
SOC 152X Sociology Elective $\quad 3 \begin{array}{lll}3 & 0 & 3\end{array}$
CLT 4305 Immunohematology $\begin{array}{llll}3 & 6 & 5\end{array}$
CLT 9374 Parallel Cooperative Education -

Clinical Laboratory Technology $\quad$| 1 | 20 | 1 |
| :--- | :--- | :--- |
|  | 26 | 9 |

NINTH TERM

| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CLT | 4309 | Clinical Laboratory Seminar | 0 | 3 | 1 |


| 1 | 20 | 1 |
| :---: | :---: | :---: |
| 3 | 0 | 3 |
| 9 | 23 | 10 |

## TENTH TERM

$\begin{array}{ccl}\text { CLT } & 4313 & \begin{array}{l}\text { Clinical Applications 3-} \\ \text { CLT }\end{array} 4314 \\ \text { Immunohematology } \\ \text { Clinical Applications 4- } \\ \text { Clinical Microbiology }\end{array}$

| 0 | 6 | 2 |
| :---: | :---: | :---: |
| 0 | 6 | 2 |
| 0 | 12 | $\frac{4}{111}$ |

Humanities/Social Science Elective: ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578, LBR 1535, LBR 1538, LBR 1539, CULT 1602, CULT 1645, CULT 1646, CULT 1647, ART 1660, MUS 1665, LIT 1040, LIT 1041, LIT 1042, LIT 1045, LIT 1046, LIT 1047, LIT 1050, LIT 1055, LIT 1059, PHI 1620, PHI 1621, PHI 1625, PHI 1630
Psychology Elective: PSY 1502, PSY 1503, PSY 1505, PSY 1506,
PSY 1508, PSY 1509, PSY 1510
Sociology Elective: SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1528
English Elective: ENG 1003, ENG 1010

## Diagnostic Medical Sonography Program (DMSAB and DMSCV)

Program Chair, DMSAB - Susan Gomien, RDMS Program Chair, DMSCV - Jackie Turner, RDCS, RVT
The Diagnostic Medical Sonography program at Cincinnati State offers a two-year Associate of Applied Science degree for those who have limited health care experience or are new to the health care field. The program offers students the opportunity to become entry-level diagnostic medical sonographers in the specialty areas of cardiovascular or general imaging sonography.
The curriculum includes a balance of general education and sonography courses in addition to supervised clinical experience obtained on site at various health care facilities in Greater Cincinnati.
Applicants must be graduates of an accredited high school or give evidence of high school equivalency by GED scores that meet standard core requirements set by the Ohio State Department of Education.
The program is divided into 3 levels of study:
Level I - DMS Pre-Core Level (first and second terms)
Level II - DMS Core Level (third, fourth and fifth terms)
Level III - DMS Clinical Level (second year)
Progression from the pre-core to core level of the curriculum requires completion of all prerequisites, including college level physics, and pre-core level courses with a grade of " C " or better and an established Cincinnati State GPA of at least 2.5. The progression process will take place each year during the month of September and the upcoming core level class will be filled based on the student's date of acceptance to the DMS major, earliest dates first. Due to the nature of the progression process, meetings with advisors are strongly encouraged.
Admission into all clinical rotations requires current certification in CPR. Students must also provide a recent physical exam with up-to-date immunizations, including Hepatitis $B$ and a two-step TB skin test.
Graduates are eligible to take the American Registry of Diagnostic Medical Sonographers national certification examinations.

## DIAGNOSTIC MEDICAL SONOGRAPHY -ABDOMINAL/OBSTETRIC-GYNECOLOGY

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State. Students in this program must also complete the following prerequisite: PHY 2245.
Students holding an associate's or bachelor's degree in an allied health field are eligible for advanced placement. To be considered for advanced placement, the student must meet with the program chair at no later than August of each year.

|  |  | Hours Per Week <br> Class | Credit <br> Hours |  |
| :--- | :--- | :--- | :---: | :---: |
| FIRST TERM |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 |
| 3 | 3 | 0 | 4 |  |
| MAT | 1151 | College Algebra | 3 | 2 |
|  | 4 |  |  |  |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 0 |
| MCH | 4806 | Medical Terminology 1 | 13 | 2 |

## FOURTH TERM

| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BIO | 4019 | Cross Sectional Anatomy | 2 | 2 | 3 |
| DMS | 4633 | Intro to General Imaging Scanning | 0 | 2 | 1 |
| MCH | 4805 | Patient Care Skills | 1 | 3 | 2 |
| XXX | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
|  |  | 9 | 7 | 12 |  |
| FIFTH TERM |  |  |  |  |  |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| DMS | 4634 | Principles of | Abdominal/OB/GYN Sonography | 2 |  |
|  |  | 7 | 6 | 5 |  |

## SIXTH TERM

| DMS | 4637 | Sonographic Physics and |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  |  | Instrumentation 1 | 3 | 0 | 3 |
| DMS | 4672 | Clinical Sonography 1 - Part 1 | 0 | 24 | 3 |
| DMS | 4676 | Abdominal Sonography 1 | 2 | 2 | 3 |
| DMS | 4683 | OB/GYN Sonography 1 | 2 | 2 | 3 |
|  |  | 7 | 28 | 12 |  |

## SEVENTH TERM

DMS 4638 Sonographic Physics
and Instrumentation $2 \quad 3 \quad 0 \quad 3$

DMS 4673 Clinical Sonography 1- Part 2 0
DMS 4677 Abdominal Sonography $2 \quad 2 \quad 2 \quad 3$

DMS 4684 OB/GYN Sonography $2 \quad$| 2 | 2 | 3 |
| :---: | :---: | :---: |
| 7 | 28 | 12 |
|  |  |  |

EIGHTH TERM

| DMS | 4640 | Issues in Sonography | 2 | 0 | 2 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| DMS | 4674 | Clinical Sonography 2 - Part 1 | 0 | 24 | 3 |
| DMS | 4678 | Superficial and Small Parts Sonography | 2 | 2 | 3 |
| DMS | 4685 | OB/GYN Sonography 3 | 2 | 2 | 3 |
|  |  |  | 28 | 11 |  |

NINTH TERM
DMS 4675 Clinical Sonography 2 - Part $2 \quad 0 \quad 36$
DMS 4687 Sonography Seminar

| 0 | 36 | 5 |
| :---: | :---: | :---: |
| 2 | 0 | 2 |
| 2 | 36 | $\frac{7}{105}$ |

Humanities/Social Science Elective: Choose any 15XX or 16XX

DIAGNOSTIC MEDICAL SONOGRAPHY CARDIOVASCULAR
All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State. Students in this program must also complete the following prerequisite: PHY 2245.
Students holding an associate's or bachelor's degree in an allied health field are eligible for advanced placement. To be considered for advanced placement, the student must meet with the program chair no later than August of each year.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 1151 | College Algebra | 4 | 0 | 4 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| MCH | 4806 | Medical Terminology 1 | 3 | 0 | 3 |
|  |  | 13 | 2 | 14 |  |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SPE | 1024 | Group Dynamics \& Problem Solving | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MCH | 4002 | Informatics in Health Care | 1 | 2 | 2 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
|  |  |  | 13 | 4 | 15 |
| THIRD TERM |  |  |  |  |  |
| ENG | 1003 | English Composition 3 | 3 | 0 | 3 |
| DMS | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
|  | 4632 | Introduction to |  |  |  |
|  |  | Diagnostic Medical Sonography | 2 | 0 | 2 |
| MCH | 4870 | Basic Electrocardiography \& |  |  |  |
|  |  | Arrhythmia Recognition | 2 | 2 | 3 |
|  |  |  | 10 |  |  |

## FOURTH TERM

| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BIO | 4019 | Cross Sectional Anatomy | 2 | 2 | 3 |
| DMS | 4635 | Intro to Cardiovascular Scanning | 0 | 2 | 1 |
| MCH | 4805 | Patient Care Skills | 1 | 3 | 2 |
| XXX | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
|  |  | 9 | 7 | 12 |  |
| FIFTH TERM |  |  |  |  |  |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| DMS | 4636 | Principles of Cardiovascular Sonography | 2 | 6 | 5 |

## SIXTH TERM

| DMS | 4637 | Sonographic Physics <br> and Instrumentation 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| DMS | 4641 | Cardiovascular Clinical 1 - Part 1 | 0 | 24 | 3 |
| DMS | 4645 | Echocardiography 1 | 2 | 2 | 3 |
| DMS | 4648 | Vascular Sonography 1 | 2 | 2 | 3 |
|  |  | 7 | 28 | 12 |  |

## SEVENTH TERM

| DMS | 4638 | Sonographic Physics <br> and Instrumentation 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| DMS | 4642 | Cardiovascular Clinical 1-Part 2 | 0 | 24 | 3 |
| DMS | 4646 | Echocardiography 2 | 2 | 2 | 3 |
| DMS | 4649 | Vascular Sonography 2 | 2 | 2 | 3 |
|  |  | 7 | 28 | 12 |  |

## EIGHTH TERM

DMS 4640 Issues in Sonography $\quad 2 \quad 0 \quad 2$
DMS 4643 Cardiovascular Clinical 2-Part $1 \quad 0 \quad 24$
DMS 4647 Echocardiography $3 \quad 2 \begin{array}{lll}2 & 3\end{array}$

DMS 4654 Vascular Sonography $3 \quad$| 2 | 2 | 3 |
| :---: | :---: | :---: |
| 6 | 28 | 11 |

## NINTH TERM

DMS 4644 Cardiovascular Clinical 2-Part $2 \quad 0 \quad 24$ DMS 4656 Cardiovascular Specialties | 3 | 0 | 3 |
| :---: | :---: | :---: |
| 3 | 24 | 6 |

| 0 | 28 | 4 |
| :--- | :--- | :--- |
| 2 | 28 | 6 |

$\overline{110}$
Humanities/Social Science Elective: any 15XX or 16XX

## Diagnostic Medical Sonography Certificate (DMSAC and DMSCC)

Program Chair, DMSAC - Susan Gomien, RDMS Program Chair, DMSCC - Jackie Turner, RDCS, RVT
The Diagnostic Medical Sonography Certificate curriculums (cardiovascular and general imaging sonography) are an option for students who already have an associate's or bachelor's degree in an allied health field with direct patient care such as nursing, radiography, or respiratory therapy. The curriculum consists of sonography courses and clinical experience at various health care facilities in Greater Cincinnati. In addition to a degree, admission requirements include a current license in the field and college level physics. A maximum of two certificate students for each area of emphasis will be accepted per year on a first come, first served basis. Prospective students must contact the appropriate DMS program chair to obtain a start date into the program.

## DIAGNOSTIC MEDICAL SONOGRAPHY -ABDOMINAL/OBSTETRIC-GYNECOLOGY CERTIFICATE

Admission to the Diagnostic Medical Sonography - Abdominal/ Obstetric-Gynecology Certificate program requires the completion of an associate's or bachelor's degree in an allied health field. Students in this program must also complete the following prerequisites:
BIO 4019, PHY 2245, EMS 4730, DMS 4632, DMS 4633.

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: |
| Hoours |  |  |  |  |
| FIRST TERM |  |  |  | 5 |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 |
| DMS | 4634 | Principles of <br>  | Abdominal/OB/GYN Sonography | 2 |
|  |  | 7 | 6 | 5 |

## SECOND TERM

| DMS | 4637 | Sonographic Physics and <br>  <br>  <br> Instrumentation 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| DMS | 4672 | Clinical Sonography 1 - Part 1 | 0 | 24 | 3 |
| DMS | 4676 | Abdominal Sonography 1 | 2 | 2 | 3 |
| DMS | 4683 | OB/GYN Sonography 1 | 2 | 2 | 3 |
|  |  | 7 | 28 | 12 |  |

THIRD TERM

| DMS | 4638 | Sonographic Physics and |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  |  | Instrumentation 2 | 3 | 0 | 3 |
| DMS | 4673 | Clinical Sonography 1- Part 2 | 0 | 24 | 3 |
| DMS | 4677 | Abdominal Sonography 2 | 2 | 2 | 3 |
| DMS | 4684 | OB/GYN Sonography 2 | 2 | 2 | 3 |

## FOURTH TERM

DMS 4640 Issues in Sonography 2002
DMS 4674 Clinical Sonography 2 - Part $1 \quad 0 \quad 24$
DMS 4678 Superficial and Small Parts Sonography $\begin{array}{lllll}2 & 2 & 3\end{array}$

DMS 4685 OB/GYN Sonography $3 \quad$| 2 | 2 | 3 |
| :---: | :---: | :---: |
| 6 | 28 | 11 |

FIFTH TERM
DMS 4675 Clinical Sonography 2 - Part $2 \quad 0 \quad 36$
DMS 4687 Sonography Seminar

## DIAGNOSTIC MEDICAL SONOGRAPHY CARDIOVASCULAR CERTIFICATE

Admission to the Diagnostic Medical Sonography certificate program requires the completion of an associate's or bachelor's degree in an allied health field. Students in this program must also complete the following prerequisites: BIO 4019, PHY 2245, EMS 4730, DMS 4632, DMS 4635.

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 |
| 5 |  |  |  |  |
| DMS | 4636 | Principles of Cardiovascular Sonography | 2 | 6 |
| MCH | 4870 |  |  |  |
|  |  | Arrhythmia Recognition |  |  |

## SECOND TERM

| DMS | 4637 | Sonographic Physics and |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  |  | Instrumentation 1 | 3 | 0 | 3 |
| DMS | 4641 | Cardiovascular Clinical 1 - Part 1 | 0 | 24 | 3 |
| DMS | 4645 | Echocardiography 1 | 2 | 2 | 3 |
| DMS | 4648 | Vascular Sonography 1 | 2 | 2 | 3 |
|  |  | 7 | 28 | 12 |  |

## THIRD TERM

DMS 4638 Sonographic Physics
and Instrumentation $2 \quad 3 \quad 0 \quad 3$
DMS 4642 Cardiovascular Clinical 1-Part $2 \quad 0 \quad 24$
DMS 4646 Echocardiography 2 20203

DMS 4649 Vascular Sonography $2 \quad$| 2 | 2 | 3 |
| :---: | :---: | :---: |
| 7 | 28 | 12 |

| FOURTH TERM |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| DMS | 4640 | Issues in Sonography | 2 | 0 |
| 2 |  |  |  |  |
| DMS | 4643 | Cardiovascular Clinical 2 - Part 1 | 0 | 24 |
| DMS | 4647 | Echocardiography 3 | 2 | 2 |
| 3 |  |  |  |  |
| DMS | 4654 | Vascular Sonography 3 | 2 | 2 |
|  |  | 6 | 28 | 11 |

## FIFTH TERM

| DMS | 4644 | Cardiovascular Clinical 2 - Part 2 | 0 | 24 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| DMS | 4656 | Cardiovascular Specialties | 3 | 0 | 3 |
|  |  | 24 | 6 |  |  |

SIXTH TERM
DMS 4650 Cardiovascular Seminar $\quad 2 \quad 0 \quad 2$
DMS 4655 Cardiovascular Clinical

| 0 | 28 | 4 |
| :--- | :--- | :--- |
| 2 | 28 | $\frac{6}{60}$ |

## Emergency Medical Technician - <br> Paramedic Program (EMTP-S and EMTP-M)

Program Chair - Debra Lierl, RRT
Program Director - William Mehbod, EMT-P
Emergency Medical Technicians administer life saving care for the sick and injured. The EMT-P program includes training in basic and advanced life support management. Students learn to apply biophysical and psychosocial principles to the complex practice of the paramedic.
The EMT Paramedic training program elevates the skills of the EMT-Basic to the paramedic level through the paramedic curriculum approved by the Ohio Department for Public Safety, Division of Emergency Medical Services. Students are eligible to take the national registry exam after completing the five Paramedic Theory and Practice classes.
Graduates can choose one of two options when obtaining their Associate of Applied Science degree: the Management Major or the Science Major.

## EMT PARAMEDIC - SCIENCE MAJOR

The Science Major gives the student a more in-depth look into the causes of many illnesses and disease processes that cause the patient to seek care. Paramedics who are interested in employment within an emergency room setting or EMS research and development may choose the Science Major.

## EMT PARAMEDIC - SCIENCE MAJOR

Prerequisite: EMT-Basic Certification in the State of Ohio. All degreeseeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit

|  |  | Hours Per Week <br> Class | Lab |
| :--- | :--- | :--- | :---: | :---: | :---: | | Hours |  |  |  |
| :---: | :---: | :---: | :---: |
| FIRST TERM |  |  |  |
| ENG | 1001 | English Composition 1 | 3 |
| 0 | 3 |  |  |
| SPE | 1024 | Group Dynamics \& Problem Solving | 3 |
| 0 | 3 |  |  |
| BIO | 4014 | Anatomy and Physiology 1 | 3 |
| XXX | XXXX | Program Elective | 2 |

SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
|  |  | 12 | 4 | 14 |  |
| THIRD TERM |  |  |  |  |  |
| EMS | 4740 | Paramedic Theory \& Practice 1 | 6 | 2 | 7 |
| EMS | 4741 | Paramedic Clinical Practice 1 | 1 | 0 | 1 |

## FOURTH TERM

| EMS | 4737 | ACLS Provider | 0 | 2 | 1 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EMS | 4742 | Paramedic Theory \& Practice 2 | 6 | 2 | 7 |
| EMS | 4743 | Paramedic Clinical Practice 2 | 1 | 10 | 3 |
|  |  |  | 14 | 11 |  |

## FIFTH TERM

| EMS | 4744 | Paramedic Theory \& Practice 3 | 6 | 2 | 7 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EMS | 4745 | Paramedic Clinical Practice 3 | 1 | 11 | 3 |
|  |  |  | 13 | 10 |  |

## SIXTH TERM

| EMS | 4746 | Paramedic Theory \& Practice 4 | 6 | 2 | 7 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EMS | 4747 | Paramedic Clinical Practice 4 | 1 | 12 | 4 |
|  |  | 7 | 14 | 11 |  |

## SEVENTH TERM

| EMS | 4748 | Paramedic Theory \& Practice 5 | 6 | 2 | 7 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EMS | 4749 | Paramedic Clinical Practice 5 | 1 | 15 | 4 |
|  |  |  | 17 | 11 |  |

EIGHTH TERM

| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| XXX | XXXX | Program Elective | 3 | 0 | 3 |
| XXX | XXXX | Program Elective | 3 | 0 | 3 |
|  |  | 12 | 0 | 12 |  |
| NINTH TERM |  |  |  |  |  |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| BIO | 40XX | Biology Elective | 3 | 0 | 3 |
| XXX | XXXX | Program Elective | 3 | 0 | 3 |
| XXX | XXXX | Program Elective | 3 | 0 | 3 |

English Electives: ENG 1003, ENG 1010, ENG 1015
Program Electives: ACC 2924, EMS 4762, EMS 4782, FST 4777,
LBR 1535, LBR 1537, LBR 1539, MCH 4806, MCH 4807, MCH 4816, MCH 4870, MCH 4871, MCH 4881, MCH 4882, MCH 4885,
MCH 4886, SPE 102X
Biology Electives: BIO 4074, BIO 4020

## EMT PARAMEDIC - MANAGEMENT MAJOR

With the Management Major, students are prepared for roles in administrative and supervisory levels within the EMS field. Optional electives include courses in Labor Relations, Accounting, and Management.

## EMT PARAMEDIC - MANAGEMENT MAJOR

Prerequisite: EMT-Basic Certification in the State of Ohio. All degreeseeking students must complete the course FYE 9002 College Success
Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per <br> Class |  |  | Week <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Credit |  |  |  |  |  |
| Hours |  |  |  |  |  |

## SECOND TERM

| ENG | 10XX | English Elective | 3 | 0 | 3 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| EMS | 4762 | Paramedic Anatomy and Physiology | 4 | 0 | 4 |
| XXX | XXXX | Informatics Elective | 2 | 0 | 2 |
|  |  |  | 15 | 0 | 15 |

## THIRD TERM

| EMS | 4740 | Paramedic Theory \& Practice 1 | 6 | 2 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| EMS | 4741 | Paramedic Clinical Practice 1 | 1 | 0 | 1 |
|  |  | 7 | 2 | 8 |  |

## FOURTH TERM

| EMS | 4737 | ACLS Provider | 0 | 2 | 1 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EMS | 4742 | Paramedic Theory \& Practice 2 | 6 | 2 | 7 |
| EMS | 4743 | Paramedic Clinical Practice 2 | 1 | 10 | 3 |
|  |  |  | 7 | 14 | 11 |
| FIFTH TERM |  |  |  |  |  |
| EMS | 4744 | Paramedic Theory \& Practice 3 | 6 | 2 | 7 |
| EMS | 4745 | Paramedic Clinical Practice 3 | 1 | 11 | 3 |
|  |  | 7 | 13 | 10 |  |

## SIXTH TERM

$\begin{array}{llllll}\text { EMS } & 4746 & \text { Paramedic Theory \& Practice } 4 & 6 & 2 & 7\end{array}$

| EMS | 4747 | Paramedic Clinical Practice 4 |
| :--- | :--- | :--- |
|  |  | 1 12 4 <br> 7 14 11 |

## SEVENTH TERM

| EMS | 4748 | Paramedic Theory \& Practice 5 | 6 | 2 | 7 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EMS | 4749 | Paramedic Clinical Practice 5 | 1 | 15 | 4 |
|  |  | 7 | 17 | 11 |  |

## EIGHTH TERM

| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| LBR | 1537 | Negotiation and Dispute Resolution | 3 | 0 | 3 |
| MCH | 4882 | Law and Ethics for Health Care | 3 | 0 | 3 |
| XXX | XXXX | Program Elective | 3 | 0 | 3 |
| XXX | XXXX | Program Elective | 3 | 0 | 3 |
|  |  | 15 | 0 | 15 |  |

## NINTH TERM

| ENG | 10 XX | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| FST | 4785 | Law and Emergency Service Providers | 3 | 0 | 3 |
| XXX | XXXX | Program Elective | 2 | 0 | 3 |
| XXX | XXXX | Program Elective | 3 | 0 | 3 |
|  |  |  | 0 | $\frac{15}{14}$ |  |

English Electives: ENG 1002, ENG 1003, ENG 1010, ENG 1015
Program Electives: ACC 2924, EMS 4773, EMS 4782, FST 4777,
MCH 4806, MCH 4807, MCH 4816, MCH 4870, MCH 4871,
MCH 4885, MCH 4886, MGT 1832, MGT 2967
Speech Electives: SPE 1020, SPE 1021, SPE 1023, SPE 1024, SPE 1027 Informatics Electives: MCH 4002, OT 1850

## Emergency Medical Technician Basic Certificate (EMTC)

Program Chair - Debra Lierl, RRT

This two-term certificate program meets State of Ohio requirements and prepares students to take the EMT-Basic National Registry Exam. Students learn to evaluate the nature and seriousness of patient injuries; assess requirements for emergency care; administer appropriate emergency care to stabilize patient conditions; and lift, move, position, and otherwise handle patients in such a way as to minimize discomfort and further injury. After successfully passing the National Registry Exam, students are eligible to apply for an EMT-Basic certificate in the State of Ohio.

## EMERGENCY MEDICAL TECHNICIAN BASIC CERTIFICATE



## Emergency Medical Technician Paramedic Certificate (EMTPC)

Program Director - Debra Lierl, RRT
Students who have already earned an EMT-Basic certificate may elevate their skills to the paramedic level by completing the EMT-Paramedic certificate curriculum approved by the Ohio Department for Public Safety, Division of Emergency Medical Services. After completing the paramedic certificate curriculum, students are eligible to take the national registry exam.

## EMT-PARAMEDIC CERTIFICATE

Program prerequisites: College level reading, DE 0020 or equivalent, and EMT-Basic certification from the State of Ohio.

|  |  | Hours Per Week <br> Class | Credit <br> Lab | Hours |
| :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  | 0 | 4 |
| EMS | 4762 | Paramedic Anatomy and Physiology | 4 | 0 |
| SECOND TERM |  |  |  |  |
| EMS | 4740 | Paramedic Theory \& Practice 1 | 6 | 2 |
| 7 |  |  |  |  |
| EMS | 4741 | Paramedic Clinical Practice 1 | 1 | 0 |

THIRD TERM

| EMS | 4737 | ACLS Provider | 0 | 2 | 1 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| EMS | 4742 | Paramedic Theory \& Practice 2 | 6 | 2 | 7 |
| EMS | 4743 | Paramedic Clinical Practice 2 | 1 | 10 | 3 |
|  |  | 7 | 14 | 11 |  |

## FOURTH TERM

$\begin{array}{llllll}\text { EMS } & 4744 & \text { Paramedic Theory \& Practice 3 } & 6 & 2 & 7\end{array}$

EMS 4745 Paramedic Clinical Practice 3 $\quad$| 1 | 11 | 3 |
| ---: | :---: | :---: |
|  |  | 13 |

FIFTH TERM

| EMS | 4746 | Paramedic Theory \& Practice 4 | 6 | 2 | 7 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EMS | 4747 | Paramedic Clinical Practice 4 | 1 | 12 | 4 |
|  |  |  | 14 | 11 |  |

## SIXTH TERM

EMS 4748 Paramedic Theory \& Practice 5 $\quad 6 \quad 2 \quad 7$
EMS 4749 Paramedic Clinical Practice 5

## Fire Service Technology Program (FST)

Program Chair - Phil Vossmeyer, C, P/F
The Fire Service Technology program provides entry-level firefighting and EMT training to those seeking firefighter careers. Other courses targeting leadership, self-discipline, and life skills ensure students a healthy and gratifying career. Graduates earn an Associate of Applied Science degree.
The scope of fire service encompasses many community needs. Many demands, small and large, are placed on fire service providers. Fighting an occasional structure fire, replacing batteries in a neighbor's smoke detector, and extricating injured victims from a vehicle collision are examples of day-to-day activities that fire departments handle. Fire personnel must therefore be trained and cross-trained in diverse subject areas to meet all of these needs.
Applicants must be graduates of an accredited high school or give evidence of high school equivalency by GED scores that meet standard core requirements set by the Ohio State Department of Education. Applicants must have earned a grade of " $C$ " or higher in high school chemistry, completed within the past seven years. COMPASS scores must meet program requirements. The College must receive an official copy of the applicant's high school/college transcripts. Student are required to complete FYE 9002 College Survival Skills prior to or during the first term attended. Students must earn grades of " C " or higher in all Fire Service Technology Program courses.
For hands-on fire training class eligibility, students must:
(1) Successfully perform and complete the Fire Cadet Fitness Evaluation.
(2) Complete the State Application for Admission to a Fire Training Course. This application screens for age, criminal convictions, and substance abuse that may disqualify students from state certification. Documentation must be provided on questionable cases.
(3) Have the Physical Exam Form (for firefighters) completed by a qualified physician.
(4) Obtain a current CPR card for healthcare providers.
(5) Complete EMT 4760 (Emergency Medical Technician Basic Training 1) course prior to or concurrently with FST 4783.
(6) Present copies of previous certifications held pertaining to fire fighting and emergency medical services.
An articulation agreement between Cincinnati State and the University of Cincinnati accommodates transition into a baccalaureate degree program for interested Fire Service Technology students.

## FIRE SERVICE TECHNOLOGY

All degree-seeking students must complete FYE 9002 College Survival Skills within their first 18 credit hours taken at Cincinnati State.
CHE prerequisite: High school chemistry with a grade of C or higher within last 7 years or CHE 2231 or (CHE 2202 AND CHE 2203).
Any FST student who fails the Fire Cadet Fitness Evaluation must take FST 4761 prior to entry into the FST Program.
Program Prerequisite: DE 0024 and acceptable COMPASS reading and writing scores or completion of DE 0005 and DE 0011.

Hours Per Week Credit

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| FST | 4748 | Principles of Emergency Services | 3 | 0 | 3 |
| FST | 4760 | Fire Cadet Basic Training | 2 | 2 | 3 |
| FST | 4772 | Fitness for Fire Service Professionals | 0 | 3 | 1 |
|  |  | 11 | 5 | 13 |  |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FST | 4740 | Fire Service Small Engines | 2 | 2 | 3 |
| FST | 4747 | Fire Behavior and Combustion | 3 | 0 | 3 |
| FST | 4785 | Law and Emergency Service Providers | 3 | 0 | 3 |
|  |  |  | 11 | 2 | 12 |

## THIRD TERM

| FST | 4776 | Thermal Imaging for Fire | 1 | 2 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FST | 4783 | Career Firefighter 1 | 6 | 6 | 8 |
| MCH | 4816 | Health and Wellness Promotion | 2 | 0 | 2 |
|  |  | 9 | 8 | 12 |  |

## FOURTH TERM

| SPE | $10 X X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FST | 4775 | Firefighter Agility Skills | 1 | 2 | 2 |
| FST | 4784 | Career Firefighter 2 | 6 | 6 | 8 |
|  |  | 10 | 8 | 13 |  |
| FIFTH TERM |  |  |  |  |  |
| SPN | 1090 | Spanish for the Professions | 3 | 0 | 3 |
| DT | 1202 | Nutrition for a Healthy Lifestyle | 3 | 0 | 3 |
| PHY | 2224 | Fire Service Physics | 2 | 3 | 3 |
| XXX | XXXX | Fire Service Technical Electives | 6 | 0 | 6 |
|  |  | 14 | 3 | 15 |  |

## SIXTH TERM

| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FST | 4741 | Invisible Dangers in the Fire Service | 2.5 | 1 | 3 |
| FST | 4777 | Emergency Vehicle Safety |  |  |  |
|  |  | and Maintenance | 1 | 2 | 2 |
| EET | 7736 | Electrical Power Systems | 4 | 2 | 4 |
|  |  | 10.5 | 5 | 12 |  |

## SEVENTH TERM

FST 4778 Fire Service

FST 4789 Firefighter Internship

| 1 | 2 | 2 |
| :---: | :---: | :---: |
| 0 | 14 | 2 |
| 1 | 3 | 2 |
| 2 | 19 | 6 |

## EIGHTH TERM

| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| EMS | 4760 | Emergency Medical Technician <br> Basic Training 1 | 3 | 5 | 5 |
| FST | 4787 | Building Construction <br> for Fire Protection 1 | 2 | 0 | 2 |
|  |  | 11 | 5 | 13 |  |

NINTH TERM

| PHI | 1625 | Ethics | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| EMS | 4761 | Emergency Medical Technician <br>  <br> Basic Training 2 | 3 | 5 | 5 |
| FST | 4788 | Building Construction <br> for Fire Protection 2 | 2 | 0 | 2 |
| FST | 4792 | Fire Service Blueprint Reading | 2 | 2 | 3 |
|  |  |  |  | $\frac{13}{109}$ |  |

Fire Service Technical Electives: (Choose six credits from the following courses): EMS 4762, EMS 4763, EMS 4764, EMS 4765, EMS 4766, EMS 4767, EVET 7607, EVET 7680, FST 4742, FST 4749, FST 4750, FST 4779, FST 4780, FST 4791, FST 4793, FST 4798, FST 4799, PE 4078, PE 4042, SSM 4005, TBE 1001, TBE 1002, TBE 1003, TBE 1004, TBE 1005, TBE 1006, TBE 1007, TBE 1008, TBE 1009 Speech Elective: SPE 1024, SPE 1027
English Elective: ENG 1003, ENG 1010, ENG 1011

## Fire Service Leadership Program (FSTL)

Program Chair - Phil Vossmeyer, C, P/F
The Fire Service Leadership program provides education and skills to certified firefighters who are interested in furthering their careers while earning an Associate of Applied Science degree. Firefighters are required to have at least five years' experience prior to beginning the second year curriculum of this program.

The program was designed to be completed on a part-time basis. Formal training obtained over previous years in the fire service may be awarded college credits.
The scope of fire service encompasses many community needs. Many demands, small and large, are placed on fire service providers and leaders. Leaders in today's fire service must keep up with technologies that influence change within the communities they serve. Leaders must be well-versed in public speaking. They must be informed on issues such as health, nutrition, diversity, standard operating guidelines, and EMS/fire law. Leaders, therefore, must be trained and cross-trained in numerous subject areas to meet the demands placed on them by the department and the community.
Applicants must be graduates of an accredited high school or give evidence of high school equivalency by GED scores that meet standard core requirements set by the Ohio State Department of Education. Applicants must have earned a grade of " C " or higher in high school chemistry completed within the past seven years or complete CHE 2200. COMPASS scores must meet program requirements. The College must receive an official copy of the applicant's high school/college transcripts. Students are required to complete FYE 9002, College Survival Skills, prior to or during the first term attended. Students must earn grades of "C" or higher in all Fire Service Leadership Program courses.
Additional requirement: Present copies of previous certifications pertaining to fire fighting and emergency medical services.

## FIRE SERVICE LEADERSHIP

All degree-seeking students must complete FYE 9002 College Survival Skills within their first 18 credit hours taken at Cincinnati State.
Program Prerequisites: The State of Ohio requires that students must have five years experience in the fire service before the fifth term of technical courses.
CHE prerequisite: High School Chemistry with a grade of C or higher within last seven years or CHE 2231 or (CHE 2202 AND CHE 2203).


| FST | 4743 | Fire Instructor 1 and 2 | 5 | 2 | 6 |
| :---: | :---: | :--- | :---: | :---: | :---: |
| EET | 7736 | Electrical Power Systems | 4 | 2 | 4 |
|  |  |  | 12 | 4 | 13 |

SEVENTH TERM

| SSM | 4003 | Introduction to |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
|  |  | Homeland Security Management | 3 | 0 | 3 |
| FST | 4748 | Principles of Emergency Services | 3 | 0 | 3 |
| FST | 4786 | Fire Officer 1 | 4 | 0 | 4 |
|  |  | 10 | 0 | 10 |  |
| EIGHTH TERM | 3 | 0 | 3 |  |  |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 |  |  |  |
| EMS | 4760 | Emergency Medical Technician | 3 | 5 | 5 |
|  |  | Basic Training 1 | 9 | 5 | 11 |
|  |  |  |  |  |  |
| NINTH TERM | 3 | 0 | 3 |  |  |
| PHI | 1625 | Ethics |  |  |  |
| EMS | 4761 | Emergency Medical Technician | 3 | 5 | 5 |
|  |  | Basic Training 2 | 2 | 2 | 3 |
| FST | 4792 | Fire Service Blueprint Reading | 8 | 7 | 11 |
|  |  |  |  |  | $\frac{110}{10}$ |

Fire Service Technical Electives: (Choose six credits from the following courses): EMS 4762, EMS 4763, EMS 4764, EMS 4765, EMS 4766, EMS 4767, EVET 7607, EVET 7680, FST 4742, FST 4745, FST 4746, FST 4749, FST 4750, FST 4779, FST 4780, FST 4791, FST 4793, FST 4798, FST 4799, PE 4078, PE 4042, SSM 4005, TBE 1001,
TBE 1002, TBE 1003, TBE 1004, TBE 1005, TBE 1006, TBE 1007, TBE 1008, TBE 1009
Speech Elective: SPE 1024, SPE 1027
English Elective: ENG 1003, ENG 1010, ENG 1011

## Geriatric Activities Coordinator Certificate

Program Chair - Claudia Miller, OTR/L
In this three-term certificate program students learn to plan and implement diversional activities for geriatric clients. Graduates are eligible for employment in facilities that use diversional activities with geriatric clients. Job duties include planning and implementing individual and group diversional activities, and involvement on the care planning team. An additional 90 hours of practicum experience is necessary for NCCAP-BEC certification.

## GERIATRIC ACTIVITIES COORDINATOR CERTIFICATE

|  | ${ }^{\text {Hours Per Week }}$ |  | $\begin{aligned} & \text { Credit } \\ & \text { Hutrs } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| FIRST TERM |  |  |  |
| OTA 4680 Introduction to Activities for Geriatrics | 3 | 2 | 4 |
| SECOND TERM |  |  |  |
| OTA 4681 Activity Planning for Geriatrics | 3 | 3 | 4 |
| THIRD TERM |  |  |  |
| OTA 4682 Geriatric Activity |  |  |  |
| Coordinator Practicum | 1 | 10 | 2 |

Prerequisites: Admitted to Cincinnati State; COMPASS scores
indicating readiness for DE 0011, DE 0004, DE 0024; history and physical examination within the last year.

## Health and Fitness Technology Program (HFT)

Program Chair - Pat Morganroth, RN, CDE
Health and Fitness Technicians work in many areas of health promotion. Technicians may conduct health and fitness screenings and design and lead land and/or aquatic aerobic exercise programs. They may organize special events, health promotion programs, and recreational activities. Health and Fitness Technicians motivate members, adapt exercises, and monitor safety and progress.
The Health and Fitness program is a two-year Associate of Applied Science degree program that includes a health and fitness internship and practicum. Health and Fitness Technicians may obtain certification in one or more areas: group fitness instructor, aquatic aerobics instructor, personal fitness trainer, yoga instructor, and resistance training instructor.

## HEALTH AND FITNESS TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit


## THIRD TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| DT | 1202 | Nutrition for a Healthy Lifestyle | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| PE | 40 XX | Physical Education Elective | 0 | 2 | 1 |
|  |  |  | 9 | 11 |  |

## FOURTH TERM

DT 1204 Nutrition for the Life Cycle $\quad 3 \quad 0 \quad 3$
BIO 4016 Anatomy and Physiology 3 3024

PE 40XX Physical Education Elective $\quad 0 \quad 2 \begin{array}{lll}1\end{array}$

BUS XXXX Business Elective $\quad$| 3 | 0 | 3 |
| :--- | :--- | :--- |
| 9 | 4 | 11 |

## FIFTH TERM

| ENG | $10 X X$ | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHI | 1620 | Critical Thinking | 3 | 0 | 3 |
| MCH | 4002 | Informatics in Health Care | 1 | 2 | 2 |
| XXX | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
|  |  | 10 | 2 | 11 |  |

## SIXTH TERM

| DT | 1203 | Cooking for a Healthy Lifestyle | 1 | 3 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| HFT | 4169 | Fitness Assessment | 2 | 2 | 3 |
| HFT | 4180 | Leading and Developing |  |  |  |
|  |  | Exercise Programs | 2 | 2 | 3 |
|  |  | 8 | 7 | 11 |  |

## SEVENTH TERM

| HFT | 4161 | Health and Fitness Practicum | 1 | 13 | 2 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HFT | 4164 | Developing Exercise Prescriptions | 2 | 2 | 3 |
| BUS | XXXX | Business Elective | 3 | 0 | 3 |
|  |  | 6 | 15 | 8 |  |

EIGHTH TERM
$\begin{array}{llllll}\text { MKT } & 2901 & \text { Principles of Marketing } 1 & 3 & 0 & 3\end{array}$

XXX XXXX Humanities/Social Science Elective | 3 | 0 | 3 |
| ---: | :--- | :--- |
|  | 2 | 2 |

## NINTH TERM

| SPE | $102 X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HFT | 4183 | Health and Fitness Internship | 1 | 16 | 3 |
| HFT | $4 X X X$ | HFT Electives | 7 | 7 | 14 |
|  |  |  | 11 | 23 | $\frac{20}{102}$ |

Health and Fitness Electives: Select a minimum of 14 credit hours from the following courses: HFT 4058, HFT 4060, HFT 4120, HFT 4122, HFT 4144, HFT 4151, HFT 4152, HFT 4160, HFT 4162, HFT 4165, HFT 4166, HFT 4167, HFT 4168, HFT 4170, HFT 4171, HFT 4172, HFT 4173, HFT 4174, HFT 4175, HFT 4176, HFT 4177, HFT 4178, HFT 4185, HFT 4186, PE 4071, PE 4075. Students may complete HFT electives during any term.
Business Elective: ACC 2911, MGT 1832, MGT 2967, MGT 2971, MGT 2972
Physical Education Elective: Any PE 4XXX
Humanities/Social Science Elective: Any 15XX or 16XX course English Elective: ENG 1003, ENG 1010, ENG 1011
Speech Elective: SPE 1020, SPE 1024

## Aquatic Group Fitness Instructor Certificate (AFIC)

Program Chair - Pat Morganroth, RN, CDE
This two-term certificate program prepares students to design and lead comprehensive aquatic classes, teaching to various fitness levels. After successful completion of the courses graduates are prepared to sit for a National Certification Examination to become a Certified Aquatic Instructor.
Graduates may be employed by health clubs, corporate fitness centers, recreation programs, hospitals, or senior centers. Job activities might include designing safe aquatic classes, scheduling classes, goal setting, and motivation.

## AQUATIC GROUP FITNESS INSTRUCTOR CERTIFICATE

Admission prerequisites: DE 0003, DE 0010, and DE 0020 or appropriate COMPASS scores.

|  |  | Hours Per Week <br> Class | Credit <br> Lab | Hours |
| :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |
| HFT | 4162 | Fundamentals of Water Aerobics | 2 | 2 |
| 3 |  |  |  |  |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 |
|  |  | 2 | 4 | 4 |

## SECOND TERM

HFT 4166 Aquatic Group Fitness Instructor

| 2 | 2 | 3 |
| :--- | :--- | :--- |
| 2 | 2 | 3 |
|  |  | $\overline{7}$ |

## Group Fitness Instructor Certificate (GFIC)

Program Chair - Pat Morganroth, RN, CDE
Job activities for Group Fitness Instructors may include designing safe traditional and/or step aerobic classes, scheduling classes, setting goals, and motivating participants. After successful completion of the certificate program, graduates are prepared to sit for a national certification examination to become a Certified Group Fitness Instructor. Graduates may work in health clubs, corporate fitness centers, aerobic studios, or recreation programs.

## GROUP FITNESS INSTRUCTOR CERTIFICATE

Admission prerequisites: DE 0003, DE 0010, and DE 0020 or appropriate COMPASS scores.

|  |  |  | Hours Per WeekClass Lab |  | $\begin{aligned} & \text { Credit } \\ & \text { Hours } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| HFT | 4160 | Fundamentals of Aerobics | 2 | 2 | 3 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
|  |  |  | 2 | 4 | 4 |
| SECOND TERM |  |  |  |  |  |
| HFT | 4165 | Group Fitness Instructor | 2 | 3 | 3.5 |

## Holistic Yoga Instructor Certificate (YTC)

Program Chair - Pat Morganroth, RN, CDE
This is a 200-hour interdisciplinary yoga teacher-training program encompassing many aspects of the yoga practice. It is designed for those who have been previously introduced to yoga or meditation. Students will begin to deepen their personal practices as their teaching skills evolve through experiential learning. Graduates from the program will be able to design yoga sequences for healthy adults as well as introduce children, teen and senior citizen routines. The goal of this training is to encourage practitioners to unfold the mind-body-spirit connection that is vital to the practice of yoga and to pass on these experiences to their students. Students are encouraged and supported to achieve "living yoga" through a variety of educational and hands-on techniques. After successfully completing the curriculum, students are qualified for registration with the National Yoga Alliance as a Registered Yoga Teacher at the 200hour level.

## HOLISTIC YOGA INSTRUCTOR CERTIFICATE

This 360-hour certification prepares the student for registration through the National Yoga Alliance.

|  |  | Hours Per Week <br> Class |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Lab | Credit |  |  |  |
| Hours |  |  |  |  |

## SECOND TERM

HFT 4144 Yoga Techniques \& Practices $1 \quad 1 \quad 4$
HFT 4145 Anatomy of Hatha Yoga 20002

HFT 4148 Yogic Nutritional Lifestyle $\quad$| 2 | 0 | 2 |
| :--- | :--- | :--- |
| 5 | 4 | 7 |

## THIRD TERM

| HFT | 4146 | Yoga Techniques \& Practices 2 | 1 | 4 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| HFT | 4149 | Yoga Practicum 1 | 1 | 5 | 2 |
|  |  | 2 | 9 | 5 |  |

FOURTH TERM
HFT 4147 Philosophy \& Ethics of Yoga 2
HFT 4150 Yoga Practicum 2

| 1 | 5 | 2 |
| :--- | :--- | :--- |
| 3 | 5 | $\frac{4}{21}$ |

## Personal Fitness Trainer Certificate (PFTC)

Program Chair - Pat Morganroth, RN, CDE
This three-term certificate program prepares students to develop safe fitness programs focused on health maintenance for healthy individuals.

Graduates may be employed by health clubs, fitness centers, or wellness centers. Job activities may include fitness testing and risk factor identification, conducting individual and group exer-
cise programs, counseling in behavior modification, and designing individualized fitness programs.
After successful completion of the courses (or certificate program) graduates are prepared to sit for a national examination to become a Certified Personal Fitness Instructor.

## PERSONAL FITNESS TRAINER CERTIFICATE

Admission prerequisites: DE 0005, DE 0011, and DE 0024 or appropriate COMPASS scores.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Hours |  |  |  |  |  |

SECOND TERM

| HFT | 4170 | Personal Fitness Trainer 1 | 3 | 2 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| THIRD TERM |  |  |  |  |  |
| HFT | 4171 | Personal Fitness Trainer 2 | 3 | 2 | $\frac{4}{14}$ |

## Pilates Mat Instructor Certificate (PMIC)

This three-term certificate program prepares the student to develop safe and effective Pilates Mat exercise classes to a variety of fitness levels. Individuals who complete this certificate will be prepared to teach Pilates Mat to people of all body types, ages, and physical conditions. Graduates may be employed by health clubs, wellness centers, and university recreation centers. After successful completion of the course, graduates are prepared to sit for the national certification examination to become a Certified Pilates Mat Instructor.

PILATES MAT INSTRUCTOR CERTIFICATE

|  |  | Hours Per Week <br> Class | Credit <br> Lab | Hours |
| :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |
| HFT | 4121 | Fundamentals of Pilates Mat | 2 | 2 |
| 3 |  |  |  |  |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 |
|  |  | 2 | 4 | 4 |
|  |  |  |  |  |

SECOND TERM
HFT 4123 Pilates Mat Instructor 2023
THIRD TERM
HFT 4124 Pilates Mat Practicum 1 5 2

## Resistance Training Certificate (RSTC)

Program Chair - Pat Morganroth, RN, CDE
This certificate prepares students to develop safe, effective, and efficient resistance training programs. Students evaluate biomedical, physiological, and genetic factors affecting strength and muscle tissue gain and learn proper form, technique, and spotting for resistance exercises using body weight, free weights, resistance machines, and other resistance-training disciplines. Proper program design and implementation are applied to both healthy adults and special populations.
Graduates may be employed as corporate, community, or hospital-based fitness and personal resistance program trainers.

## RESISTANCE TRAINING CERTIFICATE

Admission Prerequisites: DE 0003, DE 0010, and DE 0020 or appropriate COMPASS scores.

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab |
| :--- | :--- | :--- | :--- | :--- |
| Hours |  |  |  |  |

## Health Information Management Technology (HIM)

Program Chair - Sherri Mallett, RHIA, CCS-P
Health Information Management focuses on managing health care data, and using health information technology. Students learn to collect, integrate, and analyze primary and secondary health care data; disseminate information; and manage information resources related to the research, planning, provision, payment, and evaluation of health care services. A career in Health Information Management offers the opportunity to pursue a business related career that is essential to insuring quality patient care.
The HIM program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Graduates earn an Associate of Applied Science degree and are eligible to take the national certification examination for health information technicians. After successful completion of this exam, the individual is designated as a Registered Health Information Technician (RHIT).
Some non-core courses must be taken on the main campus. Most of the HIM courses are offered on the Internet or have an Internet component.

## HEALTH INFORMATION MANAGEMENT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State. All degree-seeking students must meet with the program chair prior to registering for HIM courses.

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab |
| :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |

SECOND TERM

| BIO | 4074 | Human Disease | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HIM | 4407 | Health Record Content and Format | 2 | 2 | 3 |
| HIM | 4415 | Legal Aspects of Health Information | 3 | 0 | 3 |
| MCH | 4807 | Medical Terminology 2 | 3 | 0 | 3 |
|  |  | 11 | 2 | 12 |  |
| THIRD TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 0 | 3 |  |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| HIM | 4411 | Clinical Abstracting | 2 | 4 | 4 |
| HIM | 4420 | Basic ICD-9-CM Coding | 2 | 2 | 3 |
| HIM | 4428 | Professional Practice 1 | 1 | 4 | 2 |
|  |  | 11 | 10 | 15 |  |

## FOURTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HIM | 4421 | Intermediate ICD-9-CM Coding | 3 | 2 | 4 |
| HIM | 4432 | Alternative Health Record Systems | 3 | 0 | 3 |
| OT | XXXX | Computer Elective | 2 | 2 | 3 |
|  |  | 11 | 4 | 13 |  |

## FIFTH TERM

| SPE | $10 X X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| HIM | 4410 | Basic CPT Coding | 3 | 2 | 4 |
| HIM | 4417 | Health Data Analysis and Presentation | 3 | 2 | 4 |
|  |  | 9 | 4 | 11 |  |

## SIXTH TERM

HIM 4401 Health Care
Information Technology Systems 2202

HIM 4449 Medical Billing Procedures

| 2 | 4 | 4 |
| :---: | :---: | :---: |
| 3 | 2 | 4 |
| 7 | 8 | 11 |

## SEVENTH TERM

$\begin{array}{llllll}\text { HIM } & 4422 & \text { Clinical Classification Systems } & 2 & 2 & 3\end{array}$
HIM 4450 Reimbursement Methodologies $\quad 2 \quad 2 \quad 3$
HIM 4452 Coding Skills Clinical Lab $\quad 0 \quad 3 \quad 1$

XXX XXXX Humanities/Social Science Elective | 3 | 0 | 3 |
| :---: | :---: | :---: |
|  | 7 | 7 |

EIGHTH TERM

| HIM | 4431 | Health Information <br> Department Management | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HIM | 4453 | Quality Assessment in |  |  |  |
| Health Information Management | 3 | 0 | 3 |  |  |
| XXX | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
|  |  | 10 | 0 | 10 |  |

NINTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| HIM | 4409 | HIM Seminar | 3 | 0 | 3 |
| HIM | 4429 | Professional Practice 2 | 2 | 8 | 4 |
| HIM | 4490 | HIM Capstone | 1 | 0 | 1 |
| XXX | XXXX | Program Elective | 3 | 0 | 3 |
|  |  |  | 8 | $\frac{14}{129}$ |  |

Program preqrequisites: BIO 4071, DE 0005, DE 0024, DE 0011 Humanities/Social Science Elective (Must select coursework from at least two different departments: ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578, LBR 1535, LBR 1538, LBR 1539, PSY 1502, PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510, SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1528, CULT 1602, CULT 1645, CULT 1646, CULT 1647, LIT 1040, LIT 1041, LIT 1042, LIT 1045, LIT 1046, LIT 1047, LIT 1050, LIT 1055, LIT 1059, PHI 1620, PHI 1621, PHI 1625, PHI 1630
Computer Electives: OT 1863, OT 3036, OT 3058, OT 3064, OT 3068 Program Electives ( 3 credits from one or more of the following): HIM 4499, HIM 9373, MCH 4881, MCH 4882, MCH 4885, MCH 4886 Speech Elective: SPE 1020, SPE 1024

## Coding Specialist Certificate (COC)

Program Chair - Sherri Mallett, RHIA, CCS-P
This certificate program prepares students for entry level coding positions in outpatient clinics, physician group practices, billing companies, and insurance companies. The student will learn to accurately determine code assignments using ICD-9CM and CPT code sets. In many instances, financial reimbursement is tied to these numeric coding assignments.

## CODING SPECIALIST CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  | Hours Per Week <br> Class | Credit <br> Lab |  |  |
| :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |
| MCH | 4002 | Informatics in Health Care | 1 | 2 |
| 2 |  |  |  |  |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 |
| HIM | 4400 | Introduction to |  | 4 |
|  |  | Health Information Management | 3 | 2 |
| MCH | 4806 | Medical Terminology 1 | 3 | 0 |
|  |  | 10 | 6 | 13 |

## SECOND TERM

BIO 4074 Human Disease 3 0 3

| HIM | 4407 | Health Record Content and Format | 2 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MCH 4807 | Medical Terminology 2 | 3 | 0 | 3 |  |
|  |  | 8 | 2 | 9 |  |

## THIRD TERM

| HIM | 4411 | Clinical Abstracting | 2 | 4 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| HIM | 4420 | Basic ICD-9-CM Coding | 2 | 2 | 3 |
|  |  | 4 | 6 | 7 |  |

## FOURTH TERM

| HIM | 4421 | Intermediate ICD-9-CM Coding | 3 | 2 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllll}\text { HIM } & 4410 & \text { Basic CPT Coding } & 3 & 2\end{array}$
SIXTH TERM
HIM 4449 Medical Billing Procedures $\quad 2 \begin{array}{lll}4 & 4\end{array}$

HIM 4451 Intermediate CPT Coding | 3 | 2 | 4 |
| :--- | :--- | :--- |
| 5 | 6 | 8 |

## SEVENTH TERM

HIM 4450 Reimbursement Methodologies
HIM 4452 Coding Skills Clinical Lab

| 2 | 2 | 3 |
| :---: | :---: | :---: |
| 0 | 3 | 1 |
| 2 | 5 | $\frac{4}{49}$ |

## Integrative Medical Massage Therapy Program (IMT)

Program Coordinator - Daphne Robinson, RHIT
The Medical Massage Therapist is rapidly becoming an important member of the health care team, providing specialized massage therapy for a range of health problems. As the health care industry expands to incorporate wellness, fitness, disease prevention, and chronic pain management, this creates an opportunity for the massage therapist to work in a variety of health care settings, such as hospitals, clinics, extended care facilities, and wellness centers. A Medical Massage Therapist is also qualified to establish a private practice.
The Integrative Medical Massage Therapy program is a twoyear Associate of Applied Science degree program that combines courses related to health and wellness, ethics, business, and general education with the specialized massage therapy courses. Cincinnati State offers this program through a partnership with the SHI Integrative Medical Massage and Traditional Chinese Acupuncture School. Upon successful completion of the two-year program, the graduate is eligible to take the State of Ohio licensure examination for medical massage.

## INTEGRATIVE MEDICAL MASSAGE THERAPY TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

| FIRST TERM |  | Hours Per Week |  | $\begin{aligned} & \text { Credit } \\ & \text { Hours } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| ENG 1001 | English Composition 1 | 3 | 0 | 3 |
| MCH 4001 | Introduction to the Health Care System | 2 | 0 | 2 |
| MCH 4002 | Informatics in Health Care | 1 | 2 | 2 |
| IMT 4085 | Clinical Anatomy and Physiology for the Massage Therapist 1 | 3 | 4 | 5 |
| IMT 4850 | Professionalism and Ethics in Massage Therapy | 2 | 0 | 2 |
|  |  | 11 | 6 | 14 |

SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MCH | 4816 | Health and Wellness Promotion | 2 | 0 | 2 |
| IMT | 4855 | Introduction to |  |  |  |
|  |  | Integrative Medical Massage | 2 | 2 | 3 |
| MCH | 4882 | Law and Ethics for Health Care | 3 | 0 | 3 |

## THIRD TERM

| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| IMT | 4086 | Clinical Anatomy and Physiology for the Massage Therapist 2 | 3 | 4 | 5 |
| MCH | 4840 | Orientation to the Health Record and Legal Issues | 2 | 2 | 3 |
| IMT | 4856 | Integrative Medical Massage 2 | 3 | 4 | 5 |
|  |  |  | 11 | 10 | 16 |

FOURTH TERM

| BUS | 2925 | Business Principles <br> IMT 4087 | Clinical Anatomy and Physiology <br> for the Massage Therapist 3 | 3 | 0 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| 3 |  |  |  |  |  |

SIXTH TERM
IMT 4089 Clinical Anatomy and Physiology for the Massage Therapist 5 3 4
EMS 4754 CPR and First Aid for
Health Care Professionals $0 \quad 2 \quad 1$
$\begin{array}{llllll}\text { IMT } & 4859 & \text { Integrative Medical Massage } 5 & 3 & 4 & 5\end{array}$
IMT 4892 Business Practices for the Medical Massage Therapist 3003
ENG XXXX English Elective

| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 12 | 10 | 17 |

## SEVENTH TERM

| SPE | 1023 | Interpersonal Communication | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PSY | $15 X X$ | Psychology Elective | 3 | 0 | 3 |
| IMT | 4852 | Integrative Medical Massage |  |  |  |
|  |  | Student Clinic | 3 | 6 | 5 |
| IMT | 4891 | Gross Anatomy for Massage Therapist | 1 | 2 | 2 |
|  |  |  | 10 | 8 | 13 |

## EIGHTH TERM

| PSY | 15XX | Psychology Elective | 3 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| IMT | 4894 | IMT Clinical Anatomy \& |  |  |  |
|  |  | Physiology Review | 3 | 0 | 3 |
| IMT | 4895 | IMT Comprehensive Review of Massage Therapy | 3 | 0 | 3 |
|  |  |  | 9 | 0 | 9 |

English Elective: ENG 1003, ENG 1010
Psychology Elective: PSY 1502, PSY 1506

## Associate of Technical Studies Integrative Medical Massage Therapy (IMT-ATS) (for licensed therapists)

Program Coordinator - Daphne Robinson, RHIT
An Associate of Technical Studies degree (ATS), offered through a partnership between Cincinnati State and SHI Integrative Medical Massage and Traditional Chinese Acupuncture School, is available to State of Ohio Licensed Massage Therapists. This degree completion program recognizes the professional certification of the Licensed Massage Therapist through advanced standing credit. The course of study includes courses related to health and wellness, ethics, business, and general education as part of the degree completion.

## ASSOCIATE OF TECHNICAL STUDIES INTEGRATIVE MEDICAL MASSAGE THERAPY

Admission to the program requires a current license in massage therapy from the Ohio Medical Board.

Hours Per Week Credit Class Lab Hours
FIRST TERM

| IMT | 4899 | Special Studies in Massage Therapy | 0 | 0 | 0 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| SECOND TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| MAT | 11 XX | Math Elective | 4 | 0 | 4 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| MCH | 4002 | Informatics in Health Care | 1 | 2 | 2 |
| MCH | 4816 | Health and Wellness Promotion | 2 | 0 | 2 |
|  |  | 13 | 2 | 14 |  |

THIRD TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| MCH | 4817 | Integrative Therapies for Holistic Health | 3 | 2 | 4 |
| MCH | 4840 | Orientation to the Health Record |  |  |  |
|  |  | and Legal Issues | 2 | 2 | 3 |
|  |  | 11 | 4 | 13 |  |

FOURTH TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :---: |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| MCH | 4882 | Law and Ethics for Health Care | 3 | 0 | 3 |
| MCH | 48 XX | Multicompetency Health Elective | 3 | 0 | 3 |
| XXX | XXXX | Business Elective | 3 | 0 | 3 |
|  |  | 15 | 0 | 15 |  |

## FIFTH TERM

| SPE | 10XX | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| BIO | $40 X X$ | Biology Elective | 0 | 0 | 4 |
| XXX | XXXX | Business Elective | 3 | 0 | 3 |
|  |  | 6 | 0 | $\frac{10}{52}$ |  |

Business Elective: OT 1850, MKT 2901, MGT 2967, MGT 2971
Math Elective: MAT 1105, MAT 1151
Speech Elective: SPE 1020, SPE 1024
Multicompetency Health Elective: MCH 4881, MCH 4886
Biology Elective: BIO 4009, BIO 4018, BIO 4020

## Multi-Competency Health Technician (MCH)

Program Chair - Daphne Robinson, RHIT
The Multi-Competency Health Technician program offers a flexible, innovative curriculum that meets the needs of a changing health care marketplace. While working toward a two-year Associate of Applied Science degree, students learn to perform multiple functions in more than one discipline.
While few employment advertisements read "MultiCompetent Health Technician wanted," there are many jobs
requiring multiple skills. Most graduates practice in the area of one of their completed certificates while some obtain leadership roles in the certificate area they emphasized as students. Graduates work in acute care hospitals, subacute care centers, ambulatory care settings, community health care centers, health maintenance organizations, physician offices and clinics, retirement facilities, and long-term care facilities.
General Education Requirements: 21 credit hours total

- Communication Skills (12 credit hours)
including written and oral communication courses
- Social/Behavioral Sciences (6 credit hours)
- Arts and Humanities (3 credit hours)

Basic Studies Requirements: 24 credit hours total

- Sciences (20 credit hours)
- Math (4 credit hours)

Core Technical Requirements: 26 credit hours total

- Medical Terminology
- Introduction to Health Care System
- Health Care Informatics
- Patient Care Skills
- Health Care Electives (6)
- Informatics
- Problem Solving
- CPR First Aid
- Electives 4881, 4882, 4885, 4886, 4808
- Medication Aide - 4803, 4804

Certificate Courses: A minimum of 32 credit hours of coursework. Students must choose a minimum of two certificates from this list.
Certificate Program Credit Hours
Coding Specialist
32
Electrocardiography Basic 4
Electrocardiography Advanced-Arrhythmia Recognition 3
EMT Basic 9
Health Unit Coordinator 16
Home Health Care Aide 2
Medical Assistant 34
Medication Aide 8
Nurse Aide 6
Patient Care Assistant 4
Personal Fitness Trainer 10
Restorative Aide 2
Other extended health care certificates with Program Chair consent.

## MULTI-COMPETENCY HEALTH TECHNICIAN

All degree-seeking students must complete FYE 9002 College Survival Skills within their first 18 credit hours taken at Cincinnati State. Division chemistry prerequisites: high school chemistry with a grade of C or higher within last seven years or both CHE 2202 and CHE 2203, or other equivalent college course.
Division biology prerequisites: high school biology with a grade of C or higher within last seven years or completion of BIO 4071, or equivalent college course.

Hours Per Week Credit Class Lab Hours
FIRST TERM
ENG 1001
English Composition $1 \quad 3 \quad 0 \quad 3$
MCH 4001 Introduction to the Health Care System $20^{2} 10$
ACH 4806
03
XXX XXXX Program Certificate Elective $\quad 3 \quad 0 \quad 3$

XXX XXXX Program Certificate Elective $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 14 | 0 | 14 |

| SECOND TERM |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| MCH | 4002 | Informatics in Health Care | 1 | 2 | 2 |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 | 4 |
| MCH | 4807 | Medical Terminology 2 | 3 | 0 | 3 |
| XXX | XXXX | Program Certificate Elective | 3 | 0 | 3 |
|  |  |  | 13 | 4 | 15 |
| THIRD TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| MCH | 4805 | Patient Care Skills | 1 | 3 | 2 |
| XXX | XXXX | Program Certificate Elective | 3 | 0 | 3 |
| XXX | XXXX | Program Certificate Elective | 3 | 0 | 3 |
|  |  |  | 16 | 5 | 18 |
| FOURTH TERM |  |  |  |  |  |
| ENG | 1003 | English Composition 3 | 3 | 0 | 3 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| MCH | 4840 | Orientation to |  |  |  |
|  |  | the Health Record and Legal Issues | 2 | 2 | 3 |
| MCH | 4884 | Cultural Competency for |  |  |  |
|  |  | Health and Public Safety Professions | 3 | 0 | 3 |
| xxx | XXXX | Program Certificate Elective | 3 | 0 | 3 |
|  |  |  | 14 | 4 | 16 |
| FIFTH TERM |  |  |  |  |  |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 |  |
| MCH | 4882 | Law and Ethics for Health Care | 3 | 0 | 3 |
| XXX | XXXX | Program Certificate Elective | 3 | 0 | 3 |
| XXX | XXXX | Program Certificate Elective | 3 | 0 | 3 |
|  |  |  | 12 | 2 | 13 |
| SIXTH TERM |  |  |  |  |  |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| BIO | 4074 | Human Disease | 3 | 0 | 3 |
| Xxx | XXXX | Program Certificate Elective | 3 | 0 | 3 |
|  |  |  | 15 | 3 | 16 |
| SEVENTH TERM |  |  |  |  |  |
| PSY | 1506 | Introduction to Psychology 2 | , | 0 | 3 |
| EMS | 4730 | CPR for Health Care Professionals | 0 | 2 | 1 |
| MCH | 4816 | Health and Wellness Promotion | 2 | 0 | 2 |
| XXX | xxxx | Program Certificate Elective | 3 | 0 | 3 |
|  |  |  | 8 | 2 | 9 |
| EIGHTH TERM |  |  |  |  |  |
| HFT | 4818 | Survey of Alternative and |  |  |  |
|  |  | Complementary Medicine | 3 | 0 | , |
| MCH | 4881 | Current Issues in Health Economics | 3 | 0 | 3 |
| Xxx | XXXX | Program Certificate Elective | 3 | 0 | 3 |
|  |  |  | 9 | 0 | 9 |
|  |  |  |  |  | $\overline{110}$ |

Aquatic Group Fitness: HFT 4162, HFT 4166, HFT 4167
Coding Specialist: HIM 4407, HIM 4410, HIM 4411, HIM 4420,
HIM 4421, HIM 4449, HIM 4450, HIM 4452
EMT Basic: MCH 4760, MCH 4761
EMT Paramedic: EMS 4762, EMS 4763, EMS 4764, EMS 4765, EMS 4766, EMS 4767
EKG Basic \& Advanced: MCH 4870, MCH 4871
Group Fitness Trainer: HFT 4160, HFT 4165
Health Unit Coordinator: MCH 4841, MCH 4842
Holistic Yoga Instructor: HFT 4141, HFT 4142, HFT 4143, HFT 4144, HFT 4145, HFT 4146, HFT 4147, HFT 4148, HFT 4149, HFT 4150
Medical Assistant Certificate: MA 4200, MA 4201, MA 4202,
MA 4204, MA 4205, MA 4209, MA 4211
Nurse Aide Training: MCH 4810
Personal Fitness Trainer: HFT 4153, HFT 4170, HFT 4171
Resistance Training: HFT 4185, HFT 4186
Program Electives: any MCH course not used in a certificate,
FST 4749, FST 4750
***Other health care certificates may be used only with permission of the MCH program chair.

## Electrocardiography (Basic) Certificate

Program Chair - Daphne Robinson, RHIT
This course acquaints students with the basic principles of electrocardiography. The course covers topics in the electrical conductive system of the heart, patient preparation, setting up the ECG machine, and recognizing and correcting distortion problems.

## ELECTROCARDIOGRAPHY (BASIC) CERTIFICATE

|  | Hours Per Week <br> Class | Credit <br> Lab |
| :--- | :---: | :---: | :---: | :---: |
| Hours |  |  |

## Electrocardiography (Advanced) Arrhythmia Recognition Certificate

Program Chair - Daphne Robinson, RHIT
This course is a continuation of the Basic ECG certificate with special emphasis on recognizing arrhythmias. After reviewing basic ECG principles, students learn interpretation of various types of atrial function and ventricular dysrhythmias, performance measurement, and calculation to aid in interpretation of electrocardiograms.

## ELECTROCARDIOGRAPHY (ADVANCED) ARRHYTHMIA RECOGNITION CERTIFICATE

|  | Hours Per week <br> Class | Credit <br> Lab <br> Hours |  |
| :--- | :---: | :---: | :---: |
| One Term Certificate | 3 | 0 | 3 |

## Health Unit Coordinator Certificate (UCMR)

Program Chair - Daphne Robinson, RHIT
This program is for students who wish to develop marketable skills as entry-level medical clerical workers. Job duties include assembling and maintaining patient charts; processing doctor's orders; processing admissions, transfers, and discharges; and scheduling diagnostic procedures.
The program consists of coursework covering Health Unit Coordinator procedures and communication skills. There is a nonpaid clinical rotation at an area health care organization along with additional classes. Students may take most of the courses for this program via the Internet.
The Health Unit Coordinator program meets the standards of education as published by the National Association of Health Unit Coordinators. Completion of the program qualifies students to take the National Certification Exam for Health Unit Coordinators.

## HEALTH UNIT COORDINATOR CERTIFICATE

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |
| MCH 4806 | Medical Terminology 1 | 3 | 0 | 3 |
| MCH 4840 | Orientation to <br> the Health Record and Legal Issues | 2 | 2 | 3 |
| MCH 4841 | Unit Coordinator Procedures 1 | 2 | 2 | 3 |
|  |  | 7 | 4 | 9 |

## SECOND TERM

MCH 4807 Medical Terminology 2 $\quad 3 \quad 0 \quad 3$
MCH 4842 Unit Coordinator Procedures 2

## Medication Aide Certificate

Program Director - Laurel Alfieri, RN
This certificate is part of a two-course sequence which focuses on basic concepts of anatomy, physiology, and pharmacology as required by State of Ohio regulations. The certificate's first course includes a minimum of 80 hours of lecture and lab practice to prepare students to distribute medications in long-term care and residential care facilities. The second class is a continuation of MCH 4803. Students will spend at least 40 hours of clinical practice actually passing medications under the direct supervision of a licensed nurse in a long term care and/or residential care facility. Students will research and prepare medication information for each resident in their assignment.

## Medication Aide Certificate

|  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :---: | :---: | :---: |
| One Teurs |  |  |  |  |

## Nurse Aide Training Certificate <br> Program Director - Laurel Alfieri

The Nurse Aide Training course teaches the skills needed to care for patients in a nursing home or long-term care facility. These skills include bed making, checking temperatures, monitoring pulse and respiration, giving baths and back rubs, understanding infection control precautions, feeding residents, and lifting safely to accomplish tasks without injury to self or residents. Students practice these skills in a simulated patient room and apply them in long-term care facilities with guidance from professional instructors.
Upon successful completion of the program, students are eligible to take the Competency Test offered by the Ohio Department of Health.
Students must obtain a health history, physical, and two-step PPD prior to starting the program.

## NURSE AIDE TRAINING CERTIFICATE

|  | Hours Per Week <br> Class | Credit <br> Lab | Hours |
| :--- | :---: | :---: | :---: | :---: |
| One Term Certificate | 4 | 6 | 6 |

## Medical Assistant Technology Certificate (MAC)

Program Director - Norma Ragland
Medical Assistants are multicompetent, multiskilled professionals who perform administrative, clinical, and management functions. They keep up with the dynamic changes in health care and medical practice organizations.
The Medical Assistant Certificate program prepares students to work in physicians' offices providing patient care, performing administrative tasks, and managing the medical office. Administrative tasks include: filing, scheduling appointments, handling correspondence, maintaining patient records, office management, billing, bookkeeping, and completing insurance forms. Clinical tasks involve: taking and recording medical histories, preparing patients for examinations, assisting with examinations and office surgeries, and measuring vital signs, performing therapeutic and diagnostic tests, and giving injections. As
managers, Medical Assistants manage patient care, office personnel, and physician time.
During this one-year program, students complete supervised clinical practices to develop medical assisting competencies. Students who complete the program earn a Medical Assistant technical certificate (MAC) and are eligible to take the examination to become a Certified Medical Assistant (CMA). The Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

## MEDICAL ASSISTANT CERTIFICATE

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State. All DE courses must be completed before entry into the program.

|  |  |  | Hours Per Week |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
|  |  |  |  |  |  |  |
| MCH | 4002 | Informatics in Health Care | 1 | 2 | 2 |
| BIO | 4073 | Concepts of Biology 3 | 3 | 2 | 4 |
| MA | 4202 | Clinical Procedures 1 | 2 | 3 | 3.5 |
| MA | 4204 | Medical Laboratory Procedures 1 | 2 | 3 | 3 |
| MCH | 4806 | Medical Terminology 1 | 3 | 0 | 3 |
|  |  |  | 11 | 10 | 15.5 |
| SECOND TERM |  |  |  |  |  |
| HIM | 1000 | Medical Office ICD-9-CM Coding | 2 | 3 | 3 |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| BIO | 4074 | Human Disease | 3 | 0 | 3 |
| MA | 4203 | Clinical Procedures 2 | 2 | 3 | 3.5 |
|  |  |  | 13 | 6 | 15.5 |
| THIRD TERM |  |  |  |  |  |
| HIM | 1001 | Medical Office Basic CPT Coding | 2 | 3 | 3 |
| MA | 4205 | Medical Laboratory Procedures 2 | 2 | 3 | 3 |
| MA | 4220 | Pharmacology for Medical Assistants | 2 | 3 | 3.5 |
| MA | 4221 | Medical Administrative Procedures | 2 | 3 | 3.5 |
| MCH | 4882 | Law and Ethics for Health Care | 3 | 0 | 3 |
|  |  |  | 11 | 12 | 16 |
| FOURTH TERM |  |  |  |  |  |
| MA | 4209 | Medical Assistant Seminar | 2 | 0 | 2 |
| MA | 4211 | Medical Assisting Externship 1 | 0 | 0 | 0 |
|  |  |  | 2 | 0 | 2 |

## The Cincinnati State Bethesda School of Nursing (NUR and NURP)

Program Chair/Director - Denise Rohr, RN
Program Coordinator/Assistant Director - Joanne Johnson, RN Program Chair, LPN-RN - Jeri Hancox, RN, ARPN
The School of Nursing prepares graduate nurses who are eligible to take the national standardized nursing examination (NCLEX-RN) and upon passing, work as registered nurses.
The program is approved by the Ohio Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (61 Broadway, New York, NY 10006, phone: (800) 669-1656). Graduates are members of the health team prepared to provide nursing care to clients with common health problems in a variety of settings.
Applicants must be graduates of an accredited high school or give evidence of high school equivalency by GED scores that meet standard core requirements set by the Ohio State Department of Education. Applicants must have earned grades of "C" or higher in high school or college biology, chemistry, and algebra courses. These courses must have been taken within seven years of application. COMPASS scores must meet pro-
gram requirements. Applicants must be Ohio state-tested nurse aides or LPN's. A cumulative grade point average of 2.75 and a specific grade point average of at least 2.5 for the first two terms of the curriculum are required for entry into the clinical courses.
Support courses must be taken in the sequence listed in the program curriculum outline unless they have been taken previous to the term required. Students must meet all requirements of the program, earn a minimum grade of " C " or "Pass" in all curriculum courses, attain satisfactory clinical evaluation, and maintain a minimum overall grade point average of 2.0 to complete the program. During the final term of the curriculum, students must pass a nationally standardized exit exam in order to pass the final theory course.
Current certification in CPR for health care providers is required for admission into all clinical nursing courses. Students must provide a recent physical exam with up-to-date immunizations, including Hepatitis B, prior to commencing course work. Students must obtain a two-step TB skin test to enter the program and obtain an annual repeat to remain in the program.
Prospective students are advised that when applying for the state licensure examination that they will be required to answer a series of questions related to criminal convictions, reasons for dismissal from work positions, and mental health status. A positive response to any of these questions can result in disqualification as a candidate for licensure. Refer to Ohio Revised Code 4723.28 for clarification. The licensure application may be viewed on the Ohio Board of Nursing web site at www.nursing.ohio.gov.
Students who are admitted to the program who have been convicted of felonies and/or misdemeanors are required to contact the program director to discuss their situation before entering the first nursing course. Students who are convicted of possession and/or distribution of controlled substances, or have positive drug screens for non-prescription controlled substances while enrolled in the program will be automatically dismissed.
A special track for Licensed Practical Nurses (NURP) with recent experience in hospitals or skilled long-term facilities exists, and those interested in this track should request information through the pre-technology nursing advisor or NURP Program Chair.
Students who wish to transfer nursing credit from another nursing program to Cincinnati State must contact the program coordinator for specific information after being admitted to the College and program. Students may transfer a maximum of 26 quarter credits of clinical courses. Restrictions may be placed on nursing credit transfer for students who failed a nursing course or courses in another program. Because nursing is a dynamic profession, the program reserves the right to change the curriculum as necessary.

## NURSING

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State. Students must have a minimum GPA of 2.75 in order to enter the technical sequence.

|  |  | Hours Per Week <br> Class | Credit <br> Hours |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| XXX | XXXX | Non-Technical Elective | 2 | 0 | 2 |
|  |  | 14 | 2 | 15 |  |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |

## THIRD TERM

| PSY | 1508 | Psychology: Child Development | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| NUR | 4931 | Nursing Skills Laboratory 1 | 0 | 3 | 1 |
| NUR | 4933 | Introduction to Nursing | 4 | 3 | 5 |
|  |  | 10 | 8 | 13 |  |

FOURTH TERM

| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NUR | 4941 | Nursing Skills Laboratory 2 | 0 | 3 | 1 |
| NUR | 4943 | Common Health Problems in Nursing | 6 | 6 | 8 |
| NUR | 4946 | Health Assessment in Nursing 1 | 1 | 3 | 2 |
|  |  |  | 10 | 12 | 14 |
| FIFTH TERM |  |  |  |  |  |
| NUR | 49XX | Nursing Elective | 1 | 16 | 2 |
| SIXTH TERM |  |  |  |  |  |
| NUR | 4953 | Mental Health Nursing | 3 | 6 | 5 |
| NUR | 4954 | Gerontological Nursing | 3 | 6 | 5 |
| NUR | 4956 | Health Assessment in Nursing 2 | 1 | 3 | 2 |
|  |  |  | 7 | 15 | 12 |

## SEVENTH TERM

SPE 10XX Speech Elective $\quad 3 \quad 0 \quad 3$
NUR 4963 Perinatal Nursing and
Women's Health Issues 36
NUR 4964 Nursing Care of Children

| 3 | 6 | 5 |
| :---: | :---: | :---: |
| 9 | 12 | 13 |

EIGHTH TERM

| ENG | 10XX | English Elective | 3 |
| :--- | :--- | :--- | :--- |
|  | 0 | 3 |  |
| NUR | 4973 | Adult Nursing | 6 |
|  |  | 12 | 10 |
|  |  | 12 | 13 |

NINTH TERM
NUR 4981 Transitional Clinical Experience $\quad 0 \quad 18 \quad 6$
NUR 4982 Management of Client Care

| 6 | 0 | 6 |
| :---: | :---: | :---: |
| 6 | 18 | $\frac{12}{108}$ |

Non-Technical Elective: Choose one of the following courses:
DT 1202, MCH 4001, MCH 4002, MCH 4808, MCH 4816,
MCH 4819, MCH 4870, PHI 1620, PHI 1625, PHI 1630, SPN 1090
Nursing Elective: NUR 4937, NUR 4993, or NUR 9372
Speech Elective: Any SPE 10XX course
English Elective: ENG 1010, ENG 1003
Students must complete all courses within a level with minimum grades of C or Pass before progressing to the next curriculum level.

## NURSING - LPN ALTERNATIVE

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hoours |  |  |  |  |  |

## SECOND TERM

ENG 1002 English Composition 2 3003
PSY 1506 Introduction to Psychology 2 3003
BIO 4009 General Microbiology $\quad 3 \quad 3 \begin{array}{lll}4\end{array}$
BIO 4015 Anatomy and Physiology 2

| 3 | 2 | 4 |
| :---: | :---: | :---: |
| 12 | 5 | 14 |

THIRD TERM
BIO 4016 Anatomy and Physiology 3 3024
NUR 4918 Ohio Nursing Articulation Model Transitions Course


## Occupational Therapy Assistant Technology (OTA)

Program Chair - Claudia Miller, MHS, OTR/L
Occupational therapy is the art and science of directing the human response to selected activity to promote and maintain health, prevent disability, assess behavior, and treat or train patients with physical or psychological dysfunction.
The graduate Occupational Therapy Assistant is a technically qualified member of the health team who functions under the supervision or consultation of a certified/registered occupational therapist. The Assistant accepts clinical responsibilities in hospitals, nursing homes, schools, rehabilitation centers, or those organizations directed to maintain health and socialization. The graduate demonstrates entry-level competency in analyzing activities and their application to patient needs; occupational therapy concepts and skills (daily living skills, group activities, media used in treatment, and adaptive equipment); direction of activity programs; department operation management; data collection; self understanding and the realization of the effect that one's behavior has on the patient/client and others; upholding the standards of the profession; identifying the need for continuing professional education and growth; and relating occupational therapy to the total health care system.
The mission of this program is to prepare the graduate as a competent, entry-level generalist qualified to practice in the field of OT, to meet the community workforce needs, to provide opportunities for experiential and cooperative education with exposure to non-traditional and emerging areas of practice, to educate the community, and to function within the standards of the college, the AOTA, and ACOTE.
The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association
(AOTA) located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220, phone: (301) 652-AOTA. Graduates earn an Associate of Applied Science degree and are 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 certified as a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. A felony conviction may affect a graduate's ability so sit for the NBCOT certification examination or attain state licensure. All OTA students must complete Level II fieldwork within 20 months following completion of academic preparation.

## OCCUPATIONAL THERAPY ASSISTANT TECHNOLOGY

All degree-seeking students must complete the course FYE 9002
College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.


## FOURTH TERM

| SPE | 10XX | Speech Elective | 3 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PSY | 1507 | Abnormal Psychology | 3 | 0 | 3 |
| OTA | 4611 | Occupational Therapy Concepts and Skills - Psychosocial | 3 | 0 | 3 |
| OTA | 4621 | Occupational Therapy Media Psychosocial | 0 | 4 | 2 |
| OTA | 4651 | Occupational Therapy Assisting Field Work 1 (Level 1) | 0 | 9 | 2 |
|  |  |  | 9 | 13 | 13 |
| FIFTH TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| MCH | 4001 | Introduction to the Health Care System | 2 | 0 | 2 |
| BIO | 4074 | Human Disease | 3 | 0 | 3 |
|  |  |  | 11 | 0 | 11 |
| SIXTH TERM |  |  |  |  |  |
| PSY | 1509 | Psychology: Adult Development | 3 | 0 | 3 |
| OTA | 4613 | Occupational Therapy Concepts and Skills - Physical Disabilities | 3 | 0 | 3 |
| OTA | 4623 | Clinical Competencies for Occupational |  |  |  |
|  |  | Therapy- Physical Disabilities | 0 | 6 | 3 |
| OTA | 4633 | Kinesiology for Occupational Therapy | 2 | 2 | 3 |

OTA 4636 Orthotics and Physical Agent Modalities | 0 | 2 | 1 |
| :---: | :---: | :---: |
| 8 | 10 | 13 |

| SEVENTH TERM |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| CULT | 1602 | Issues in Human Diversity |  |  |
| OTA | 4614 | Occupational Therapy Concepts <br> and Skills - Gerontology | 3 | 0 |
| OTA | 4624 | Therapeutic Media-Gerontology <br> Occupational Therapy <br> OTA 4653 | 3 | 0 |

## NINTH TERM

OTA 4660 Occupational Therapy Assisting
Field Work 4 (Level 2) $\quad 0 \quad 40 \quad 6$

TENTH TERM
OTA 4661 Occupational Therapy Assisting Field Work 5 (Level 2)
$0 \quad 40 \quad 6$
Speech Elective: Any SPE
English Elective: ENG 1010, ENG 1003

## Respiratory Care Technology (RC)

Program Chair - Debra Lierl, RRT
Respiratory Care education at Cincinnati State is an Associate of Applied Science degree program that prepares students to administer all routine respiratory care procedures, continuous mechanical ventilation, hemodynamic monitoring, and other specialized diagnostic and therapeutic procedures. Students also receive training in non-traditional areas such as home care and pulmonary rehabilitation.
The program is 22 months in duration and includes paid cooperative education and unpaid clinical experiences. Graduates are prepared to work in acute care, long-term care, and home care settings.
The program is fully accredited by the Committee on Accreditation for Respiratory Care (CoARC). Program graduates may apply for the certification examination and registry examination administered by the National Board for Respiratory Care (NBRC). Candidates who pass these exams are recognized as Certified Respiratory Therapists (CRT) and as Registered Respiratory Therapists (RRT).

## RESPIRATORY CARE TECHNOLOGY

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State

|  |  | Hours Per Week <br> Class | Credit <br> Lab <br> Hours |  |
| :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |
| MAT | 11 XX | Math Elective | 4 | 0 |
| 4 |  |  |  |  |
| PHY | 2244 | Health Physics 1 | 3 | 2 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 |
| MCH | 4805 | Patient Care Skills | 1 | 3 |
|  |  | 11 | 7 | 14 |
|  |  |  |  |  |

## SECOND TERM

| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BIO | 4015 | Anatomy and Physiology 2 | 3 | 2 | 4 |
| RT | 4701 | Respiratory Care Science 1 | 3 | 2 | 4 |
| RT | 4720 | Cardiopulmonary |  |  |  |
|  |  | Anatomy \& Physiology | 4 | 2 | 5 |
| 13 | 6 | 16 |  |  |  |

THIRD TERM

| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| BIO | 4016 | Anatomy and Physiology 3 | 3 | 2 | 4 |
| RT | 4702 | Respiratory Care Science 2 | 3 | 3 | 4 |
| RT | 4711 | Respiratory Care Clinical Practice 1 | 0 | 9 | 1 |
|  |  |  | 9 | 17 | 13 |

## FOURTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| RT | 4703 | Respiratory Care Science 3 | 3 | 2 | 4 |
| RT | 4712 | Respiratory Care Clinical Practice 2 | 0 | 9 | 1 |
| RT | 4718 | Pulmonary Diseases 1 | 3 | 3 | 4 |
|  |  |  | 12 | 14 | 15 |
| FIFTH TERM |  |  |  |  |  |
| RT | 4704 | Respiratory Care Science 4 | 4 | 3 | 5 |
| RT | 4713 | Respiratory Care Clinical Practice 3 | 0 | 17 | 3 |
| RT | 4719 | Pulmonary Diseases 2 | 3 | 0 | 3 |
|  |  |  | 7 | 20 | 11 |
| SIXTH TERM |  |  |  |  |  |
| RT | 4705 | Respiratory Care Science 5 | 2 | 2 | 3 |
| RT | 4714 | Respiratory Care Clinical Practice 4 | 0 | 22 | 4 |
| XXX | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
|  |  |  | 5 | 24 | 10 |

## SEVENTH TERM

| ENG | 10XX | English Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| BIO | 4020 | Fundamentals of Pathophysiology | 5 | 0 | 5 |
| RT | 4706 | Respiratory Care Science 6 | 5 | 0 | 5 |
| RT | 9376 | Parallel Coop. Ed. - Respiratory Care | 1 | 20 | 1 |
| RT | 9386 | Internship - Respiratory Care | 1 | 20 | 1 |
|  |  | 15 | 40 | 15 |  |

## EIGHTH TERM

| RT | 4707 | Respiratory Care Science 7 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |

RT 4715 Respiratory Care Clinical Practice $5 \quad 0 \quad 18 \quad 3$

XXX XXXX Humanities/Social Science Elective | 3 | 0 | 3 |
| :---: | :---: | :---: |
| 6 | 18 | 9 |

## NINTH TERM

SPE 10XX Speech Elective $\quad 3$| 3 | 0 | 3 |
| :--- | :--- | :--- |

RT 4716 Respiratory Care Clinical Practice $6 \quad 0 \quad 20$

RT 4723 Respiratory Care Seminar $\quad$| 2 | 2 | 3 |
| :---: | :---: | :---: |
| 5 | 22 | 9 |

Humanities/Social Science Elective (Must select coursework from at least two of the different departments listed): SOC, PSY, CULT, PHI Math Elective: MAT 1105, MAT 1151
English Elective: ENG 1003, ENG 1010
Speech Elective: SPE 1020, SPE 1024, SPE 1027

## Safety and Security Management Technology <br> Program Director - Robert Baylor

The Safety and Security Management degree provides a comprehensive review of issues related to Safety and Security Management, including agencies, laws, authorities, and actions. This program prepares students for entry-level or advanced management positions in safety and security venues. The curriculum includes courses in basic law, regulations and compliance, hazardous materials, emergency response, domestic and international terrorism, homeland security management, risk management, and disaster preparedness.
The program integrates several certificates specifically designed to meet the state's need for individuals with specialized training. These certificates can either stand alone as industry-specific training or can apply to an Associate of Applied Science degree in Safety and Security Management. Students interested in the certificates should contact the Health and Public Safety Division for further information.
The Safety and Security Management Program contains five areas of study or majors: Construction Management,

Environmental Leadership, Hazardous Incidents Leadership, Healthcare Leadership, and Safety and Security Leadership. The programs also include cooperative education employment in a public or private safety or security venue.

## SAFETY AND SECURITY MANAGEMENT CONSTRUCTION SAFETY (SSM-C)

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State. Program prerequisites: high school biology within the last seven years with a grade of C or higher or BIO 4073. High school Chemistry within the last seven years with a grade of C or higher or (CHE 2202 and CHE 2203) or CHE 2200.

Hours Per Week Credit

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| SSM | 4001 | Professionalism in |  |  |  |
|  |  | Safety and Security Management | 3 | 0 | 3 |
| CET | 7971 | Construction Health \& Safety 1 | 3 | 0 | 3 |
| XXX | XXXX | Math/Science Elective | 4 | 0 | 4 |
|  |  | 13 | 0 | 13 |  |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| SSM | 4002 | Legal Issues in |  |  |  |
|  |  | Safety and Security Management | 4 | 0 | 4 |
| EMS | $47 X X$ | EMS Elective | 4 | 0 | 4 |
| CET | 7972 | Construction Health \& Safety 2 | 3 | 0 | 3 |
| XXX | XXXX | Math/Science Elective | 4 | 0 | 4 |
|  |  | 18 | 0 | 18 |  |

## THIRD TERM

ENG 10XX English Elective $\begin{array}{lll}3 & 0 & 3\end{array}$
SSM 4003 Intro. to Homeland Security Management 3 0 3
SSM 4004 Principles of Safety Management 44
CET 7973 Construction Risk Management \& Insurance 1
XXX XXXX Math/Science Elective

| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 4 | 0 | 4 |
| 17 | 0 | 17 |

## FOURTH TERM

| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :---: |
| SSM | 4005 | Emergency Preparation and Response | 4 | 0 | 4 |
| SSM | 4120 | On-Scene Incident Management | 3 | 0 | 3 |
| CET | 7975 | Environmental Issues in Construction | 3 | 0 | 3 |
|  |  | 13 | 0 | 13 |  |

## FIFTH TERM

TOS 1020 Fall Protection Safety $2 \begin{array}{lll}2 & 3\end{array}$
SPN 1090 Spanish for the Professions 30003
SSM 4121 Principles of Security Management $\begin{array}{lllll}1 & 3 & 0 & 3\end{array}$

CET 7974 Construction Safety Plan Management | 3 | 0 | 3 |
| :---: | :---: | :---: |
|  |  | 11 |

SIXTH TERM
MGT 2989 Customer Service Systems $\begin{array}{llll}2 & 3 & 3\end{array}$
$\begin{array}{llllll}\text { SSM } & 4122 & \text { Principles of Security Management } 2 & 3 & 0 & 3\end{array}$
SSM 92XX Experiential Learning Elective 00001
EVET XXXX EVET Elective $\quad 0 \quad 0 \quad 4$

XXX $\quad$ XXXX $\quad$ Construction Safety Elective $\quad$| 0 | 0 | 3 |
| :---: | :---: | :---: |
|  |  | 3 |

SEVENTH TERM

| SPE | 10XX | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| XXX | XXXX | Construction Safety Elective | 0 | 0 | 2 |
|  |  | 9 | 0 | 11 |  |

## EIGHTH TERM

SSM 92XX Experiential Learning Elective
XXX XXXX Management Elective
XXX XXXX Accounting/Finance Elective
XXX XXXX General Elective

| 0 | 0 | 1 |
| :---: | :---: | :---: |
| 0 | 0 | 3 |
| 0 | 0 | 3 |
| 0 | 0 | 3 |
| 0 | 0 | $\frac{10}{108}$ |

Math/Science Electives: Must take 9 hours math/science electives, of which at least one must be a math course, and at least one a science course.
Math Elective: MAT 1151, MAT 1191, MAT 1192
Science Elective: EMS 4762, BIO 4014, BIO 4015, BIO 4016,
BIO 4009, CHE 223X, EVS 7622, EVS 7623, EVS 7624, PHY 22XX
EMS Elective: EMS 4770 or (EMS 4760 and EMS 4761)
Environmental Elective: EVET 7612, EVET 7671, EVET 7646, EVET 7608
English Elective: ENG 1003, ENG 1010, ENG 1011
Speech Elective: SPE 1020, SPE 1024
General Elective: CRJ 1250, CULT 1648, ECO 1512, ITP 1086, JOU 1031, LAW 1838, LBR 1535, MCH 4882, OT 1850, OT 3036, SOC 1273, SOC 1524, SOC 1525, SSM 4301, SSM 4303, SSM 4304 Students may also take any additional course that appears in the math/science or environmental electives lists.
Accounting/Finance Elective: ACC 2924
Management Elective: MGT 1832, MGT 2967
SSM Experiential Learning Elective: SSM 9200, SSM 9201, SSM 9210, SSM 9211
Construction Safety Elective: CET 7976, TOS 1021, TOS 1022, TOS 1023, TOS 1024, TOS 1030

## SAFETY AND SECURITY MANAGEMENT ENVIRONMENTAL SAFETY AND SECURITY (SSM-E)

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State. Program prerequisites: high school biology within the last seven years with a grade of C or higher or BIO 4073. High school Chemistry within the last seven years with a grade of C or higher or (CHE 2202 and CHE 2203) or CHE 2200.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| SSM | 4002 | Legal Issues in |  |  |  |
|  |  | Safety and Security Management | 4 | 0 | 4 |
| EVET | 7607 | Environmental Sampling | 2 | 3 | 3 |
| XXX | XXXX | Math/Science Elective | 4 | 0 | 4 |
|  |  | 13 | 3 | 14 |  |

THIRD TERM
ENG 10XX English Elective $\quad 3 \quad 0 \quad 3$
SSM 4003 Intro. to Homeland Security Management 300
SSM 4004 Principles of Safety Management 4
EVET 7672 Advanced Sampling \& Analysis $\quad 2 \quad 3 \quad 3$

XXX XXXX Math/Science Elective $\quad$| 4 | 0 | 4 |
| :---: | :---: | :---: |
| 16 | 3 | 17 |

FOURTH TERM

| SSM | 4005 | Emergency Preparation and Response | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| SSM | 4120 | On-Scene Incident Management | 3 | 0 | 3 |
| EVET | 7682 | Materials Transportation |  |  |  |
|  |  | Safety and Security | 3 | 0 | 3 |
| SSM | 9 XXX | Experiential Learning Elective | 0 | 0 | 1 |
|  |  | 10 | 0 | 11 |  |

FIFTH TERM
SPN 1090
SSM 4121
EMS 47XX EMS Elective
404

EVET 7681 Adv. Environmental Risk Assessment |  | 3 | 3 |
| :---: | :---: | :---: |
|  |  | 4 |
| 13 | 3 | 14 |

SIXTH TERM
MGT 2989 Customer Service Systems $2 \quad 3 \quad 3$

| SSM | 4122 | Principles of Security Management 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| EVET | 7648 | Utilities Safety and Security | 3 | 2 | 4 |
| EVET | 7676 | Hazardous Waste Management | 2 | 3 | 3 |
| SSM | 9XXX | Experiential Learning Elective | 0 | 0 | 1 |
|  |  | 10 | 8 | 14 |  |

## SEVENTH TERM

| SPE | $10 X X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| EVET | 7683 | Environmental Impact of |  |  |  |
|  |  | Weapons of Mass Destruction | 2 | 2 | 3 |
| EVET XXXX | Environmental Elective | 4 | 0 | 4 |  |
| XXX | XXXX | Management Elective | 3 | 0 | 3 |
|  |  | 15 | 2 | 16 |  |

EIGHTH TERM

| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| ET | 9401 | Cooperative Education - |  |  |  |
|  |  | Engineering Technologies (Parallel) | 1 | 20 | 1 |
| XXX | XXXX | General Elective | 3 | 0 | 3 |
| XXX | XXXX | Accounting or Finance Elective | 3 | 0 | 3 |
|  |  |  |  |  | $\frac{10}{109}$ |

Math/Science Electives: Must take 9 hours math/science electives, of which at least one must be a math course, and at least one a science course.
Math Elective: MAT 1151, MAT 1191, MAT 1192
(Environmental Majors must take MAT 1191 and MAT 1192)
Science Elective: EMS 4762, BIO 4014, BIO 4015, BIO 4016,
BIO 4009, CHE 223X, EVS 7622, EVS 7623, EVS 7624, PHY 22XX
EMS Electives: EMS 4770 or (EMS 4760 and EMS 4761)
Environmental Elective: EVET 7612, EVET 7671, EVET 7646, EVET 7608
English Elective: ENG 1003, ENG 1010, ENG 1011
Speech Elective: SPE 1020, SPE 1024
General Elective: CRJ 1250, CULT 1648, ECO 1512, ITP 1086, JOU 1031, LAW 1838, LBR 1535, MCH 4882, OT 1850, OT 3036,
SOC 1273, SOC 1524, SOC 1525, SSM 4301, SSM 4303, SSM 4304 Students may also take any additional course that appears in the math/science or environmental electives lists.
Accounting/Finance Elective: ACC 2924
Management Elective: MGT 1832, MGT 2967
SSM Experiential Learning Elective: SSM 9200, SSM 9201, SSM 9210, SSM 9211

## SAFETY AND SECURITY MANAGEMENT HEALTHCARE LEADERSHIP MAJOR (SSM-H)

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State. Program prerequisites: high school biology within the last seven years with a grade of C or higher or BIO 4073. High school Chemistry within the last seven years with a grade of C or higher or (CHE 2202 and CHE 2203) or CHE 2200.

|  |  |  | Hours Per Week |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| SSM | 4001 | Professionalism in |  |  |  |
|  |  | Safety and Security Management | 3 | 0 | 3 |
| XXX | XXXX | Math/Science Elective | 0 | 0 | 4 |
|  |  |  | 9 | 0 | 13 |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SSM | 4002 | Legal Issues in |  |  |  |
|  |  | Safety and Security Management | 4 | 0 | 4 |
| XXX | 47XX | EMS Elective | 0 | 0 | 4 |
| XXX | XXXX | Math/Science Elective | 0 | 0 | 4 |
|  |  |  | 7 | 0 | 15 |

THIRD TERM
ENG 10XX English Elective $\quad 0 \quad 0 \quad 3$
SSM 4003 Intro. to Homeland Security Management 3003

| SSM | 4004 | Principles of Safety Management | 4 | 0 | 4 |
| :--- | :--- | :--- | :--- | :--- | :---: |
| XXX | XXXX | Math/Science Elective | 0 | 0 | 4 |
|  |  | 7 | 0 | 14 |  |

## FOURTH TERM

| MGT | 2965 | Principles of Management 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :---: |
| SSM | 4005 | Emergency Preparation and Response | 4 | 0 | 4 |
| SSM | 4120 | On-Scene Incident Management | 3 | 0 | 3 |
|  |  |  | 10 | 0 | 10 |

FIFTH TERM

| SPN | 1090 | Spanish for the Professions | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PSY | 1502 | Human Relations-Applied Psychology | 3 | 0 | 3 |
| MGT | 2966 | Principles of Management 2 | 3 | 0 | 3 |
| SSM | 4121 | Principles of Security Management 1 | 3 | 0 | 3 |
| SSM | 4201 | Basic Health Care Security | 4 | 0 | 4 |
|  |  |  | 16 | 0 | 16 |

## SIXTH TERM

MGT 2989 Customer Service Systems 20303
SSM 4122 Principles of Security Management $2 \quad 3 \quad 0 \quad 3$
SSM 4202 Advanced Health Care Security 4
$\begin{array}{llllll}\text { SSM } & 4203 & \text { Health Care Security and Safety } & 3 & 0 & 3\end{array}$

SSM 9XXX SSM Experiential Learning Elective $\quad$| 0 | 0 | 1 |
| :---: | :---: | :---: |
|  |  | 12 |

SEVENTH TERM

| SPE | $10 X X$ | Speech Elective | 0 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| SSM | 4204 | Health Care Security Supervision | 3 | 0 | 3 |
| EVET | 76 XX | Environmental Elective | 0 | 0 | 4 |
|  |  | 6 | 0 | 13 |  |

## EIGHTH TERM

SSM 9100 Capstone Experience in SSM 30003
SSM 9XXX Experiential Learning Elective $\quad 0 \quad 0 \quad 1$
XXX XXXX General Elective
$\begin{array}{llllll}X X X & \text { XXXX } & \text { Accounting/Finance Elective } & 0 & 0 & 3\end{array}$
XXX XXXX Management Elective

| 0 | 0 | 3 |
| :---: | :---: | :---: |
| 3 | 0 | $\frac{13}{108}$ |

Math/Science Electives: Must take 9 hours of math/science electives, of which at least one must be a math course, and at least one a science course.
Math Elective: MAT 1151, MAT 1191, MAT 1192
Science Elective: EMS 4762, BIO 4014, BIO 4015, BIO 4016,
BIO 4009, CHE 223X, EVS 7622, EVS 7623, EVS 7624, PHY 22XX EMS Electives: EMS 4770 or (EMS 4760 and EMS 4761)
Environmental Elective: EVET 7612, EVET 7671, EVET 7646, EVET 7608
English Elective: ENG 1003, ENG 1010, ENG 1011
Speech Elective: SPE 1020, SPE 1024
General Elective: CRJ 1250, CULT 1648, ECO 1512, ITP 1086, JOU 1031, LAW 1838, LBR 1535, MCH 4882, OT 1850, OT 3036, SOC 1273, SOC 1524, SOC 1525, SSM 4301, SSM 4303, SSM 4304 Students may also take any additional course that appears in the math/science or environmental electives lists.
Accounting/Finance Elective: ACC 2924
SSM Experiential Learning Elective: SSM 9200, SSM 9201, SSM 9210, SSM 9211
Management Elective: MGT 1832, MGT 2970 MGT 2988, MGT 2996

## SAFETY AND SECURITY MANAGEMENT LEADERSHIP MAJOR (SSM-L)

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State. High school biology within the last seven years with a grade of C or higher or BIO 4073 . High school Chemistry within the last seven years with a grade of C or higher or (CHE 2202 and CHE 2203) or CHE 2200.

Hours Per Week Credit

|  | Hours Per Week <br> Class <br> Cab |  |
| :--- | :--- | :--- |

FIRST TERM
ENG 1001 English Composition $1 \quad 3 \begin{array}{lll}3\end{array}$
CULT 1602 Issues in Human Diversity 3003

SSM 4001 Professionalism in
Safety and Security Management
XXX XXXX Math/Science Elective

| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 0 | 0 | 4 |
| 9 | 0 | 13 |

SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SSM | 4002 | Legal Issues in |  |  |  |
|  |  | Safety and Security Management | 4 | 0 | 4 |
| EMS | $47 X X$ | EMS Elective | 0 | 0 | 4 |
| XXX | XXXX | Math/Science Elective | 0 | 0 | 4 |
|  |  | 7 | 0 | 15 |  |

THIRD TERM
ENG 10XX English Elective $\quad 3 \quad 0 \quad 3$
SSM 4003 Intro. to Homeland Security Management 300
SSM 4004 Principles of Safety Management $\quad 4 \quad 0 \quad 4$

XXX XXXX Math/Science Elective $\quad$| 0 | 0 | 4 |
| :---: | :---: | :---: |
|  |  | 0 |
| 10 | 14 |  |

## FOURTH TERM

| MGT 2965 | Principles of Management 1 | 3 | 0 | 3 |  |
| :--- | :--- | :--- | :---: | :--- | :---: |
| SSM | 4005 | Emergency Preparation and Response | 4 | 0 | 4 |
| SSM | 4120 | On-Scene Incident Management | 3 | 0 | 3 |
| EVET XXXX | Environmental Elective | 0 | 0 | 4 |  |
|  |  | 10 | 0 | 14 |  |

## FIFTH TERM

SPN 1090 Spanish for the Professions $\quad 3 \quad 0 \quad 3$
CRJ 1256 Criminal Investigation Skills $\begin{array}{llll}3 & 0 & 3\end{array}$
PSY 1502 Human Relations-Applied Psychology $\begin{array}{lllll}3 & 0 & 3\end{array}$
MGT 2966 Principles of Management 2 3003
SSM 4121 Principles of Security Management $1 \begin{array}{ccc}3 & 0 & 3 \\ & & 0\end{array} 15$

## SIXTH TERM

| MGT | 2989 | Customer Service Systems | 2 | 3 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| SSM | 4122 | Principles of Security Management 2 | 3 | 0 | 3 |
| SSM | 4401 | Proprietary Information Security | 3 | 0 | 3 |
| SSM | 4402 | Asset Protection and Loss | 3 | 0 | 3 |
| SSM | $92 X X$ | Experiential Learning Elective | 0 | 0 | 1 |
|  |  | 11 | 3 | 13 |  |

## SEVENTH TERM

| SPE | $10 X X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
| SSM | 4403 | Personnel Security | 3 | 0 | 3 |
| SSM | 4404 | Physical Plant Security Operations | 3 | 0 | 3 |
|  |  |  | 12 | 0 | 12 |

## EIGHTH TERM

SSM 9100 Capstone Experience in SSM
SSM 92XX Experiential Learning Elective

| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 0 | 0 | 1 |
| 0 | 0 | 3 |
| 0 | 0 | 3 |
| 0 | 0 | 3 |
| 3 | 0 | $\frac{13}{109}$ |

Math/Science Electives: Must take 9 hours math/science electives, of which at least one must be a math course, and at least one a science course.
Math Elective: MAT 1151, MAT 1191, MAT 1192
Science Elective: EMS 4762, BIO 4014, BIO 4015, BIO 4016,
BIO 4009, CHE 223X, EVS 7622, EVS 7623, EVS 7624, PHY 22XX
EMS Electives: EMS 4770 or (EMS 4760 and EMS 4761)
Environmental Elective: EVET 7612, EVET 7671, EVET 7646, EVET 7608
English Elective: ENG 1003, ENG 1010, ENG 1011
Speech Elective: SPE 1020, SPE 1024
General Elective: CRJ 1250, CULT 1648, ECO 1512, ITP 1086, JOU 1031, LAW 1838, LBR 1535, MCH 4882, OT 1850, OT 3036, SOC 1273, SOC 1524, SOC 1525, SSM 4301, SSM 4303, SSM 4304 Students may also take any additional course that appears in the math/science or environmental electives lists.
Accounting/Finance Elective: ACC 2924
SSM Experiential Learning Elective: SSM 9200, SSM 9201, SSM 9210, SSM 9211
Management Elective: MGT 1832, MGT 2970, MGT 2988, MGT 2996

## SAFETY AND SECURITY MANAGEMENT HAZARDOUS MATERIAL INCIDENT MAJOR (SSM-Z)

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.
Program prerequisites: High school biology within the last seven years with a grade of C or higher or BIO 4073 . High school chemistry within the last seven years with a grade of C or higher or (CHE 2202 and CHE 2203) or CHE 2200.

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |

SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TBE | 1010 | Introduction to |  |  |  |
|  |  | Incident and Crisis Management | 3 | 0 | 3 |
| SSM | 4002 | Legal Issues in |  |  |  |
|  |  | Safety and Security Management | 4 | 0 | 4 |
| EMS | 47XX | EMS Elective | 4 | 0 | 4 |
| XXX | XXXX | Math/Science Elective | 4 | 0 | 4 |
|  |  |  | 18 | 0 | 18 |
| THIRD TERM |  |  |  |  |  |
| ENG | 10XX | English Elective | 3 | 0 | 3 |
| SSM | 4003 | Intro. to Homeland Security Management | 3 | 0 | 3 |
| SSM | 4004 | Principles of Safety Management | 4 | 0 | 4 |
| XXX | XXXX | Math/Science Elective | 4 | 0 | 4 |
|  |  |  | 14 | 0 | 14 |

FOURTH TERM
THZ 1005 40-Hour HAZMAT Workshop 3 2 4
SSM 4005 Emergency Preparation and Response 4
SSM 4120 On-Scene Incident Management $\quad 3 \begin{array}{llll}3 & 0 & 3\end{array}$

EVET 76XX Environmental Elective $\quad 4$| 4 | 0 | 4 |
| :--- | :--- | :--- |

FIFTH TERM
THZ 1020 Management Issues in
Disaster Preparedness and Response 303

THZ 1030 Radiological and Biological
Emergency Preparedness Planning 3003

SPN 1090 Spanish for the Professions $\quad 3 \quad 0 \quad 3$
PSY 1502 Human Relations-Applied Psychology $\begin{array}{lllll}3 & 0 & 3\end{array}$

SSM 4121 Principles of Security Management 1 | 3 | 0 | 3 |
| :---: | :---: | :---: |
|  |  | 0 |

SIXTH TERM
THZ 1040 Introduction To Terrorism $\quad 3 \quad 0 \quad 3$
THZ 1050 Disaster Forecasting and Modeling $22^{2}$
MGT 2989 Customer Service Systems $\quad 2 \quad 3 \quad 3$
SSM 4122 Principles of Security Management $2 \quad 3 \quad 0 \quad 3$
SSM 92XX Experiential Learning Elective

| 0 | 0 | 1 |
| :---: | :---: | :---: |
| 10 | 5 | 13 |

## SEVENTH TERM

SPE 10XX Speech Elective $\quad 3 \quad 0 \quad 3$
PHI 1625 Ethics 3003

XXX XXXX General Elective $\quad$| 3 | 0 | 3 |
| :--- | :--- | :--- |
| 9 | 0 | 9 |

## EIGHTH TERM

THZ 1041 Consequences of Terrorism 3003
SSM 92XX Experiential Learning Elective $\quad 0 \quad 0 \quad 1$
XXX $\quad$ XXXX Accounting/Finance Elective $\quad 3 \quad 0 \quad 3$
XXX XXXX Management Elective

| 0 | 0 | 3 |
| :---: | :---: | :---: |
| 6 | 0 | $\frac{10}{109}$ |

Math/Science Electives: Must take 9 hours math/science electives, of which at least one must be a math course, and at least one a science course.
Math Elective: MAT 1151, MAT 1191, MAT 1192
Science Elective: EMS 4762, BIO 4014, BIO 4015, BIO 4016,
BIO 4009, CHE 223X, EVS 7622, EVS 7623, EVS 7624, PHY 22XX
EMS Electives: EMS 4770 or (EMS 4760 and EMS 4761)
Environmental Elective: EVET 7612, EVET 7671, EVET 7646, EVET 7608
English Elective: ENG 1003, ENG 1010, ENG 1011
Speech Elective: SPE 1020, SPE 1024
General Elective: CRJ 1250, CULT 1648, ECO 1512, ITP 1086, JOU 1031, LAW 1838, LBR 1535, MCH 4882, OT 1850, OT 3036, SOC 1273, SOC 1524, SOC 1525, SSM 4301, SSM 4303, SSM 4304 Students may also take any additional course which appears in the math/science or environmental electives lists.
Accounting/Finance Elective: ACC 2924
SSM Experiential Learning Elective: SSM 9200, SSM 9201, SSM 9210, SSM 9211
Management Elective: MGT 1832, MGT 2967

## Surgical Technology Program (ST)

Program Chair - Wanda Dantzler, RN, CNOR, CRCST
Surgical Technology, an Associate of Applied Science degree program, prepares practitioners specifically for the operating room scrub role. Employment opportunities include hospital operating room departments, obstetrical departments, surgical supply/processing departments, outpatient surgery centers, surgeon office practices, and surgical product manufacturers. Most of the area hospitals and some ambulatory surgery centers are affiliated with the program.
During operative procedures, Surgical Technologists function as an integral part of the surgical team and work directly with the surgeon and registered nurse. Their responsibilities include preparing operative equipment and supplies, instrumentation during operative procedures, and other intra-operative patient care activities.
Theory and practice are integrated through the use of simulated laboratory experiences and hospital operating room experiences. Students also take supportive coursework in basic sciences, communication skills, and social sciences. Students receive no monetary compensation for clinical coursework.
The program is accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Accreditation Review Committee on Education in Surgical Technology.
Upon satisfactory completion of the curriculum, students are eligible to take the Surgical Technologist National Certifying Examination administered by the Liaison Council on Certification for the Surgical Technologist for designation as a Certified Surgical Technologist (CST). A CST may practice in all 50 states.

## SURGICAL TECHNOLOGY

Program prerequisites: DE 0025 or MAT 1105. All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

Hours Per Week Credit

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| BIO | 4014 | Anatomy and Physiology 1 | 3 | 2 | 4 |
| ST | 4505 | Introduction to Surgery 1 | 5 | 0 | 5 |
| MCH | 4806 | Medical Terminology 1 | 3 | 0 | 3 |
|  |  | 14 | 2 | 15 |  |

## SECOND TERM

| PHY | 2245 | Health Physics 2 | 3 | 2 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BIO | 4009 | General Microbiology | 3 | 3 | 4 |
| ST | 4506 | Introduction to Surgery 2 | 5 | 0 | 5 |
| ST | 4541 | ST Surgery Lab | 0 | 3 | 1 |

## THIRD TERM

MCH 4002 Informatics in Health Care 1 2 2
BIO 4015 Anatomy and Physiology 2 $\quad 3 \quad 2 \quad 4$
$\begin{array}{llllll}\text { ST } & 4531 & \text { General Surgery } 1 & 5 & 0 & 5\end{array}$

ST 4542 ST Clinical \& Lab Integration $1 \quad$| 1 | 6 | 3 |
| :---: | :---: | :---: |
| 10 | 10 | 14 |

## FOURTH TERM

SPE 1024 Group Dynamics \& Problem Solving $\begin{array}{llll}3 & 0 & 3\end{array}$
$\begin{array}{llllll}\text { BIO } & 4016 & \text { Anatomy and Physiology } 3 & 3 & 2 & 4\end{array}$
ST 4532 General Surgery 2 5 0

ST 4543 ST Clinical \& Lab Intregration $2 \quad$| 0 | 7 | 3 |
| :---: | :---: | :---: |
|  |  | 9 | 15

## FIFTH TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| BIO | 4018 | Pharmacology | 3 | 0 | 3 |
| ST | 4533 | Surgical Specialties 1 | 5 | 0 | 5 |
| ST | 4544 | Introduction to Clinical Practice | 0 | 6 | 2 |
|  |  |  | 11 | 6 | 13 |

## SIXTH TERM

| ST | 4534 | Surgical Specialties 2 | 5 | 0 | 5 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| ST | 4551 | ST Clinical Practice 1 | 0 | 30 | 5 |
| XXX | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
|  |  | 8 | 30 | 13 |  |

## SEVENTH TERM

| ST | 4535 | Surgical Specialties 3 | 5 | 0 | 5 |
| :--- | ---: | :--- | :---: | :---: | :---: |
| ST | 4552 | ST Clinical Practice 2 | 0 | 25 | 5 |
| XXX | XXXX | Humanities/Social Science Elective | 3 | 0 | 3 |
|  |  |  | 25 | 13 |  |

## EIGHTH TERM

ENG 10XX English Elective 3003
MCH 4001 Introduction to the Health Care System 22000
ST 4553 ST Clinical Practice 3 0
XXX XXXX Humanities/Social Science Elective

| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 8 | 25 | 1 |

10
Humanities/Social Science Elective (Must select coursework from at least two different departments): ECO 1512, ECO 1513, ECO 1514, GEO 1551, GEO 1552, GEO 1553, HST 1561, HST 1562, HST 1563, HST 1568, HST 1569, HST 1570, HST 1575, HST 1576, HST 1577, HST 1578, LBR 1535, LBR 1538, LBR 1539, PSY 1502, PSY 1503, PSY 1505, PSY 1506, PSY 1508, PSY 1509, PSY 1510, SOC 1521, SOC 1523, SOC 1524, SOC 1525, SOC 1526, SOC 1528 Humanities/Fine Arts Elective: CULT 1602, CULT 1645, CULT 1646, CULT 1647, ART 1660, MUS 1665, LIT 1040, LIT 1041, LIT 1042, LIT 1045, LIT 1046, LIT 1047, LIT 1050, LIT 1055, LIT 1059, PHI 1620, PHI 1621, PHI 1625, PHI 1630
English Elective: ENG 1003, ENG 1010

## Workforce Development Center Certificates

The following health certificate programs are offered in collaboration with Cincinnati State's Workforce Development Center. Classes are scheduled once a sufficient number of students indicate an interest in enrolling. Students enrolled in these courses earn regular college credits. For further information regarding the Workforce Development Center, please refer to page 151 of this catalog or visit the Workforce Development Center Web page at http://www.cincinnatistate.edu/CorporatePartner/WorkforceDev elopment.

## Central Service Technology (CSST)

Program Chair - Wanda Dantzler, RN, CRSCT
This accelerated course acquaints entry-level technicians with the scope of the central service profession and the scientific principles that underlie their daily work. Individuals in this field must have a working knowledge of central service techniques for providing patient care items used in the health care facility.
Central Service Technicians process, store, and distribute supplies and equipment used for patient care. In addition, they participate in the selection and evaluation process of patient care items and assist with inventory control management and preventative equipment maintenance.
The Central Service Technology accelerated course is approved by the International Association of Healthcare Central Service Material Management (IAHCSMM). After successful completion of the course, graduates are recognized as Registered Central Service Technicians (RCST). Graduates are eligible for the International Certification Examination administered by IAHCSMM for designation as a Certified Registered Central Service Technician (CRCST). Central Service Technicians may be employed in health care facilities in purchasing, sterile processing, material management, and central service.

## CENTRAL SERVICE CERTIFICATE

All certificate-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |
| ST | 4584 | Introduction to CS Clinical Practice | 1 | 10 |
| ST | 4590 | Introduction to Central Service | 5 | 0 |
| MCH | 4806 | Medical Terminology 1 | 3 | 0 |
|  |  | 9 | 10 | 10 |
|  |  |  |  |  |
| SECOND TERM | 5 | 0 | 5 |  |
| ST | 4580 | Central Service Technology 1 | 1 | 15 |
| ST | 4585 | Central Service Clinical Practice 1 | 3 |  |
| ST | 4592 | Principles of Material Management |  |  |
|  |  | in Health Care | 3 | 0 |

Nurse Aide Training Certificate - See page 140

## Nurse Aide Train-the-Trainer Program

Program Director - Laurel Alfieri
This state-approved course meets the requirements for nurses teaching either the classroom or clinically supervised parts of an approved Training and Competency Evaluation program for long-term care aides.

## NURSE AIDE TRAINING CERTIFICATE

One Term Certificate
MCH 4810 Nurse Aide Training $\quad 4 \quad 6 \quad 6$

## Patient Care Assistant Certificate

Program Director - Jane Dunigan
The Patient Care Assistant is an unlicensed assistant who supports the professional nurse in providing basic patient care in an acute care setting. Patient Care Assistants are trained to work in hospitals in general medical/surgical units. The program builds upon the content covered in the Nurse Aide Training and Competency Evaluation Program. It addresses role definition, clarification, and patient focus; communication (including medical terminology); overview of basic anatomy and physiology concepts and associated common normal/abnormal observations; overview of nutrition and diet therapy; pre- and postoperative care; functional health patterns related to hospitalized patients; and associated patient care skills.
Prospective students must have State-Tested Nurse Aide certification and a high school diploma or GED equivalent.

## PATIENT CARE ASSISTANT CERTIFICATE

Hours Per Week Credit Class Lab Hours
One Term Certificate
$\begin{array}{llllll}\text { MCH } & 4812 & \text { Intro to Patient Care Assistant Role } & 4 & 0 & 4\end{array}$

## Restorative Aide Certificate

Program Director - Jane Dunigan
This course provides an overview of the restorative aide's role and responsibilities. Students learn lifting, moving, and ambulation procedures; care of individuals with musculoskeletal, neurological, and integumentary conditions; restorative approaches to meeting nutrition, hydration, activities of daily living, and personal care needs; and care documentation. This class is appropriate for licensed nurses new to restorative programs in long term care.
Prospective students must have State-Tested Nurse Aide or current Nurse Aide Certification.

## RESTORATIVE AIDE CERTIFICATE

|  | Hours Per Week <br> Class | Credit <br> Lab |  |
| :--- | :--- | :---: | :---: | :---: |
| Hours Term Certificate | 1 | 2 | 2 |

## Humanities Division

Main Phone Number: (513) 569-1700
The Humanities Division recognizes that each student has a unique combination of attitudes, beliefs, values, and experiences. The Humanities Division's courses enable students to understand the forces that shape them, especially in the psychological, social, and economic areas, and provide tools that assist students either in controlling or adapting to these forces.
Foremost among these tools is effective communication, both oral and written. Therefore, the division offers a number of courses that enhance communication skills by developing critical thinking techniques and the ability to present information in a clear, organized manner. To set the stage for success in the college experience, degree-seeking students are required to complete the college orientation course FYE 9002, College Success Strategies, within the first 18 credit hours taken at Cincinnati State.

The Humanities Division offers Associate of Arts, Associate of Applied Science, and Associate of Technical Study degrees. The Division also offers several certificate programs.

## Entrance Competencies

In order to ensure a high degree of success in academic studies in Humanities, entering students must meet established academic levels in mathematics, written communication skills, and reading comprehension. To aid in determining these levels, entering students are required to take COMPASS, the college admissions/placement test. If testing and previous academic background indicate that a student has not reached the necessary preparatory level, a divisional advisor will assist in preparing a program of classes to help the student reach those levels. Preparatory classes are available on a year-round basis.

## Cooperative Education

The Humanities Division shares the College's commitment to cooperative education as an integral part of the curriculum. Cooperative education allows students to apply concepts learned in the classroom with practical, hands-on experience in full-time or part-time on-site work environments. In some cases, degree-seeking students with prior work experience related to their post-baccalaureate career goals may be eligible to receive credit through the standard College procedures for granting Advanced Standing Credit. The program chair and cooperative education coordinator must approve all substitutions in advance.
For eligibility requirements, co-op registration policies, and other issues related to cooperative education, please refer to the "Cooperative Education" section of the catalog on page 31.

## The Writing Center

The Writing Center provides full-service tutoring to Cincinnati State students. Tutors are available by appointment or walk-in to help provide guidance to students in all facets of the writing process.

## Transfer Module

The Ohio Board of Regents developed the Transfer Module to facilitate transfer of credits from one Ohio public college or university to another. Ohio's Transfer Module contains 54 to 60 quarter hours of course credits in the areas of English, mathematics, arts and humanities, social and behavioral sciences, natural and physical sciences, and interdisciplinary studies. A Transfer Module completed at one college or university automatically meets the requirements for the Transfer Module at another college or university once the student is admitted. For additional information, see the "State of Ohio Policy for Institutional Transfer" and the "Transfer Module" sections of the College catalog.
The Associate of Arts degree contains all of the required courses for the Transfer Module, and the two Associate of Applied Science degrees contain many of the required courses. Students earning Associate of Applied Science degrees may schedule additional courses needed to complete the Transfer Module at their convenience. Students who transfer to an Ohio public university for baccalaureate degrees will find that an Associate of Arts degree or an Associate of Applied Science degree combined with a Transfer Module showing grades of "C" or higher, leads to preferential consideration at the receiving institution.

## Associate of Arts (AARTS)

Program Chair - Joyce Rimlinger
Co-op Coordinator - Linda Romero-Smith
Advisor - Julie McLaughlin
The Associate of Arts degree prepares students to transfer to a four-year college or university to complete a Bachelor's degree in such fields as communications, psychology, criminal justice, education, pre-law, and social work. Students who earn this degree receive preferential consideration for admission to Ohio's public universities.
For a complete listing of degree requirements, see pages 74 to 78.

## Early Childhood Care and Education Program (ECE)

Program Chair - Crystal Bossard
Co-op Coordinator - Linda Romero-Smith
The Associate of Applied Science in Early Childhood Care and Education (ECE) program prepares graduates to work in a variety of child care settings. Graduates of this Program are eligible to apply to the Ohio Department of Education for Pre-Kindergarten Teacher Certification.
The ECE program has been designed, with the assistance of experienced faculty and the program's Advisory Committee, to meet the standards of the National Association for the Education of Young Children and the Council for Early Childhood Professional Recognition as well as those formulated by the Ohio Department of Education for Pre-Kindergarten Teacher Certification.

## EARLY CHILDHOOD CARE AND EDUCATION

All degree-seeking students must complete the course FYE 9002 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  |  | Hours Per Week |  | $\begin{aligned} & \text { Credit } \\ & \text { Hours } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FIRST TERM |  |  |  |  |  |
|  |  |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| OT | 305X | Word Processing Elective | 2 | 3 | 3 |
| ECE | 4359 | Foundations of |  |  |  |
|  |  | Early Childhood Care and Education | 3 | 0 | 3 |
| ECE | 4368 | Early Childhood Assessment and Observation Techniques | 2 | 0 | 2 |
| ECE | 4371 | Communicable Diseases of |  |  |  |
|  |  | Early Childhood | 1 | 0 | 1 |
| ECE | 4372 | Child Abuse Recognition and Prevention | 1 | 0 | 1 |
| EMS | 4733 | CPR - Pedriatric Basic Life Support | 0 | 1 | 0.5 |
| EMS | 4734 | Heartsaver AED | 0 | 1 | 0.5 |
|  |  |  | 12 | 5 | 14 |

SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ECE | 4360 | Principles of Early Childhood Education | 3 | 0 | 3 |
| ECE | 4361 | Early Childhood 1 - Infant/Toddler | 3 | 0 | 3 |
| ECE | 4362 | Early Childhood Practicum 1 - |  |  |  |
|  |  | Infant/Toddler | 1 | 7 | 2 |
| ECE | 4374 | Language Development | 3 | 0 | 3 |
|  |  | 16 | 7 | 17 |  |
|  |  |  |  |  |  |

THIRD TERM

| ENG | 1010 | Technical Writing 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 | 3 |
| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| ECE | 4363 | Early Childhood 2 - Preschool | 3 | 0 | 3 |
| ECE | 4364 | Early Childhood Practicum 2 - Preschool | 1 | 7 | 2 |
| ECE | 4369 |  |  |  |  |
|  |  | Parents and Families in |  |  |  |
|  |  | 2 | 0 | 2 |  |



## Early Childhood Care and Education Certificate (ECEC)

Program Chair - Crystal Bossard
The Early Childhood Care and Education certificate program prepares students for entry-level positions in a variety of child care settings. Graduates are prepared to assist parents in meeting the physical, emotional, and maturational needs of children from infancy to kindergarten.
Entrance requirements include: a background check, ability to perform and assist children in daily activities, physical examination, and up-to-date immunizations.
Students who complete the certificate are eligible to apply for the Child Development Association (CDA) credential, awarded by the Council for Early Childhood Professional Recognition. This credential is awarded to competent care providers and home providers who have demonstrated the ability to meet the needs of children and parents in the home and in various childcare centers.

## EARLY CHILD CARE AND EDUCATION CERTIFICATE

All degree-seeking students must complete the course FYE 9002
College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab <br> Hours |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FIRST TERM |  |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| ECE | 4359 | Foundations of Early Childhood Care <br> and Education |  |  |  |
|  |  | 3 | 0 | 3 |  |
| ECE | 4360 | Principles of Early Childhood Education | 3 | 0 | 3 |
| ECE | 4368 | Early Childhood Assessment and |  |  |  |
|  |  | Observation Techniques | 2 | 0 | 2 |
| ECE | 4372 | Child Abuse Recognition and Prevention | 1 | 0 | 1 |
| EMS | 4750 | Heartsaver Pediatric First Aid/CPR | 0 | 1 | 0.5 |

## SECOND TERM

| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :--- |
| ECE | 4361 | Early Childhood 1 - Infant/Toddler | 3 | 0 | 3 |
| ECE | 4362 | Early Childhood Practicum 1- <br> Infant/Toddler | 1 | 7 | 2 |
| ECE | 4367 | Art, Music, Play for <br> Early Childhood Programs | 3 | 0 | 3 |
| ECE | 4369 | Parents and Families in <br> Early Childhood Education <br> Communicable Diseases of <br> Early Childhood | 2 | 0 | 2 |
| ECE | 4371 | 1 | 0 | 1 |  |
| 13 | 7 | 14 |  |  |  |

## THIRD TERM

ENG 1002 English Composition 2 3003
ECE 4363 Early Childhood 2-Preschool 3003
ECE 4364 Early Childhood Practicum 2 - Preschool 1
ECE 4370 Nutrition and Health for

Early Childhood Programs $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
|  | 10 | 7 |

## FOURTH TERM

| SPE | 1020 | Public Speaking |
| :--- | :--- | :--- |
| ECE | 4374 | Language Development |
|  |  | 3 |
|  |  | 0 |
| 3 | 3 |  |
|  |  | 0 |

FIFTH TERM
ECE 4375
Diversity Education for
Early Childhood Programs
XXX XXXX Humanities/Sciences Elective

| 3 | 0 | 3 |
| ---: | ---: | ---: |
| 3 | 0 | 3 |
| 6 | 0 | $\frac{6}{49.5}$ |

Humanities/Social Science Elective: SOC 1273, SOC 1521, SOC 1523, SOC 1526, SOC 1528, ART 1660, MUS 1665, PSY 1506, PSY 1508

## Early Childhood Care and Education Leadership Certificate (ECELD)

Program Chair - Crystal Bossard

The Early Childhood Care and Education Leadership Certificate provides training for students, administrators, and other personnel. Courses are offered in state-of-the-art program management techniques in administration, personnel management, fiscal management, and small business startup strategies. This certificate provides skills for directors who have management responsibilities as well as supervisory responsibilities for the care of children.

EARLY CHILDCARE LEADERSHIP CERTIFICATE

|  |  |  | Hours Per Week |  | Credii <br> Hows |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ACC | 2924 | Accounting for Non-Financial Managers | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
|  | 2971 | Small Business Start-Up 1 | 3 | 0 | 3 |


| ECE | 4378 | Administration of Childhood Programs | 4 | 0 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ECE | 4386 | Professional, Legal, and Ethical Issues |  |  |  |
|  |  | in Childhood Education | 3 | 0 | 3 |
| TC | 5034 | Planning and Developing Proposals | 3 | 2 | 4 |
|  |  |  | 19 | $\frac{20}{20}$ |  |

## Early Childhood Care and Education Literacy Certificate (ECELC)

Program Chair - Crystal Bossard
The Literacy Certificate provides teachers, parents, and child care center directors an opportunity to gain skills in language and literacy development for children including oral communication, story telling, and facilitating emerging reading skills. The Certificate offers literacy promotion and language development in compliance with the No Child Left Behind Act.

## EARLY CHILDHOOD CARE AND EDUCATION LITERACY CERTIFICATE

All certificate-seeking students must complete the course FYE 9200 College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  | Hours Per Week <br> Class | Credit <br> Hours |
| :--- | :--- | :--- |
| FIRST TERM |  |  |


| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SECOND TERM |  |  |  |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| ECE | 4374 | Language Development | 3 | 0 | 3 |
|  |  | 6 | 0 | 6 |  |

THIRD TERM

| ENG | 1003 | English Composition 3 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ECE | 4381 | Early Literacy 1 | 3 | 0 | 3 |
|  |  |  | 3 | 0 | 3 |

## FOURTH TERM

| LIT | 1054 | Children's Literature | 3 | 0 |
| :--- | :--- | :--- | :--- | :--- |
| 3 |  |  |  |  |
| ECE | 4382 | Early Literacy 2 | 3 | 0 |

## Infant/Toddler Certificate (ECEITC)

Program Chair - Crystal Bossard
This professional certificate is appropriate and relevant for Early Head Start, Early Intervention sites, and family childcare providers, or anyone serving infants and toddlers and their families.

## INFANT/TODDLER CERTIFICATE

|  |  |  | $\begin{aligned} & \begin{array}{l} \text { Hours Per Week } \\ \text { Class } \end{array} \\ & \hline \end{aligned}$ |  | $\begin{aligned} & \text { Credit } \\ & \text { Hours } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ECE | 4356 | Enhancing Infant and |  |  |  |
|  |  | Toddler Development through Play | 4 | 0 | 4 |
| ECE | 4360 | Principles of Early Childhood Education | 3 | 0 | 3 |
| ECE | 4361 | Early Childhood 1 - Infant/Toddler | 3 | 0 | 3 |
| ECE | 4362 | Early Childhood Practicum 1 - |  |  |  |
|  |  | Infant/Toddler | 1 | 7 | 2 |
| ECE | 4369 | Parents and Families in |  |  |  |
|  |  | Early Childhood Education | 2 | 0 | 2 |
| ECE | 4376 | Exceptional Children | 3 | 0 | 3 |
|  |  |  | 16 | 7 | 17 |
|  |  |  |  |  | $\overline{17}$ |

## School Age Certificate (ECESAC)

Program Chair - Crystal Bossard
This professional certificate is appropriate and relevant for school age recreation employees, before and after school program workers, family home providers, and community group workers who work with children from ages five to 12 .

## SCHOOL AGE CERTIFICATE

|  |  |  | $\begin{aligned} & \text { Hours Per Week } \\ & \text { Class Lab } \end{aligned}$ |  | $\begin{aligned} & \text { Credit } \\ & \text { Hours } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ECE | 4357 | Creative and Recreational Activities for School Age Children | 4 | 0 | 4 |
| ECE | 4358 | Classroom Management for Early Childhood Education | 3 | 0 | 3 |
| ECE | 4360 | Principles of Early Childhood Education | 3 | 0 | 3 |
| ECE | 4365 | Early Childhood 3-School Age | 3 | 0 | 3 |
| ECE | 4366 | Early Childhood Practicum 3 School Age | 1 | 7 | 2 |
| ECE | 4369 | Parents and Families in Early Childhood Education | 2 | 0 | 2 |
| ECE | 4375 | Diversity Education for Early Childhood Programs | 3 | 0 | 3 |
| ECE | 4376 | Exceptional Children | 3 | 0 | 3 |
|  |  |  | 22 | 7 | $\underline{23}$ |

## Child Development Associate Certificate (CDA)

The Child Development Associate Certificate provides students with the opportunity to meet the requirements for their CDA credential. Students who complete the credential are eligible to apply for the Child Development Associate (CDA) through the Council on Professional Development.

## CHILD DEVELOPMENT ASSOCIATE CERTIFICATE



ECE 4367 Art, Music, Play for
Early Childhood Programs 3003
ECE 4388 Child Development Associate (CDA) Portfolio Development

## Employee and Labor Relations Certificate (ELRC)

Advisor - Marcha Hunley
The Employee and Labor Relations Certificate includes business and social sciences courses that develop students' competence in the area of Human Resources and Employee Relations. Coursework focuses on human behavior, vital management/leadership skills, and the rights and responsibilities of the employer and employee in unionized environments. This concentration of courses is helpful to students or professionals in preparing for such positions as manager, supervisor, team leader, foreperson, department head, or employee representative. It is also useful as a foundation for those who plan a career in the field of human resource management. Students may elect to take longer than three terms to complete the curriculum.

## EMPLOYEE AND LABOR RELATIONS CERTIFICATE



ELR Electives: LAW 1824, MGT 1833, MGT 1834, MGT 2988, PSY 1502, SOC 1525, SPE 1020, SPE 1027
Computer Skills Elective: OT 1850 or another OT course approved by advisor

## Human Services Certificate (HSC)

Advisor - Crystal Bossard
The Human Services Certificate develops skills and competencies needed to enter one of the helping professions and provides a foundation for those who plan careers related to social work, family services, criminal justice, community organizing, and other areas. Certificate program requirements, when included in the

Associate of Arts degree, are the starting point for students who plan to continue their education in a human services related field.

## HUMAN SERVICES CERTIFICATE

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab | Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 3 | 0 | 3 |  |
| ENG | 1001 | English Composition 1 | 3 | 0 | 3 |
| SOC | 1273 | Drugs in Society | 3 | 0 | 3 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 2 | 2 | 3 |
| XXX | XXXX | Computer Literacy Elective | 14 | 2 | 15 |
|  |  |  |  |  |  |
| SECOND TERM | 3 | 0 | 3 |  |  |
| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| CRJ | 1250 | Introduction to Criminal Justice | 3 | 0 | 3 |
| SOC | 1270 | Introduction to Social Work | 3 | 0 | 3 |
| SOC | 1523 | Introduction to Sociology 2 | 3 | 0 | 3 |
| SOC | 1526 | Sociology: Marriage and The Family | 15 | 0 | 15 |
|  |  |  |  |  |  |
| THIRD TERM |  | 3 | 0 | 3 |  |
| SPE | 1020 | Public Speaking | 3 | 0 | 3 |
| CRJ | 1257 | Juvenile Delinquency | 3 | 0 | 3 |
| SOC | 1271 | Social Welfare and Policies | 3 | 0 | 3 |
| SOC | 1272 | Social Problems | 3 | 0 | 3 |
| CULT | 1602 | Issues in Human Diversity | 1 | 20 | 2 |
| HUM | $98 X X$ | Experiential Learning Elective | 16 | 20 | 17 |
|  |  |  |  |  | 47 |

Computer Literacy Elective: IT 5102, IT 5201, IT 5410, OT 1850, OT 3058
Experiential Learning Elective: HUM 9802, HUM 9803, or HUM 9804

## Interpreter Training Program (ITP)

## Program Chair - Dawn Caudill

The Interpreter Training Program offers extensive coursework in American Sign Language (ASL) and Deaf Studies. The learning environment combines classroom instruction, experiential and self-directed growth, and community activities. Students devote a great deal of time to study, practice, skill development, observation, and community involvement, as the skills needed to succeed in Interpreter Training cannot be mastered through classroom attendance alone. Graduates earn an Associate of Applied Science degree and may work as Interpreters, Sign Language Transliterators, or in other related jobs.

## INTERPRETER TRAINING PROGRAM

All degree-seeking students must complete the course FYE 9002 College Survival Skills as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class |  |  |
| :--- | :--- | :--- | :---: | :---: |
| Lab |  |  |  |  | | Credit |
| :---: |
| Hours |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ITP | 1092 | Intermediate American Sign Language 2 | 3 | 2 | 4 |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 | 3 |
| ITP | 5460 | Interpreting for the Deaf | 3 | 0 | 3 |
| ITP | 5462 | Community Resources for Deaf | 3 | 0 | 3 |
|  |  |  | 15 | 2 | 16 |

## THIRD TERM

$\begin{array}{llllll}\text { SPE } & 1020 & \text { Public Speaking } & 3 & 0 & 3\end{array}$

| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| :--- | :---: | :--- | :---: | :---: | :---: |
| ITP | XXXX | ITP Elective | 3 | 0 | 3 |
|  |  | 12 | 2 | 13 |  |

## FOURTH TERM

| ENG | 1003 | English Composition 3 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ITP | 5461 | Preparation for ITP Practicum | 3 | 0 | 3 |
| ITP | 5464 | Sign-to-Voice Interpreting 1 | 3 | 2 | 4 |
| ITP | 5475 | Educational Interpreting 1 | 3 | 0 | 3 |
|  |  |  | 12 | 2 | 13 |

## FIFTH TERM

ITP 1094 Advanced American Sign Language $1 \quad 3 \quad 2 \quad 4$
MAT 1121 Business Mathematics $1 \quad 3 \quad 0 \quad 3$
$\begin{array}{llllll}\text { ITP } & 5465 & \text { Sign-to-Voice Interpreting } 2 & 3 & 2 & 4\end{array}$
ITP 5470 Transliterating 1

| 4 | 0 | 4 |
| :---: | :---: | :---: |
| 13 | 4 | 15 |

## SIXTH TERM

| ITP | 1095 | Advanced American Sign Language 2 | 3 | 2 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ITP | 5463 | Role of Interpreter | 3 | 0 | 3 |
| ITP | 5466 | Sign-to-Voice Interpreting 3 | 3 | 2 | 4 |
| ITP | 5483 | General Practicum | 2 | 10 | 3 |
|  |  | 11 | 14 | 14 |  |

## SEVENTH TERM

| ITP | 1096 | Advanced American Sign Language 3 | 3 | 2 | 4 |
| :--- | ---: | :--- | :---: | :---: | :---: |
| ITP | 5467 | Sign-to-Voice Interpreting 4 | 3 | 2 | 4 |
| ITP | 5483 | General Practicum | 2 | 10 | 3 |
| XXX | XXXX | Computer Literacy Elective | 2 | 2 | 3 |
|  |  | 10 | 16 | 14 |  |

## EIGHTH TERM

$\begin{array}{lllllll}\text { ITP } & 5471 & \text { Medical/Technical/Legal Interpreting } & 4 & 0 & 4\end{array}$
ITP 5472 Specialized Interpreting 4

ITP 5483 General Practicum $\quad$| 2 | 10 | 3 |
| :---: | :---: | :---: |
| 10 | 10 | 11 |

*Beginning ASL 1, 2, and 3 (ITP 1086, ITP 1087, ITP 1088) or advisor approval of equivalent experience are prerequisites to Intermediate ASL 1.
ITP Electives: ITP 1089, ITP 5468, ITP 5478, ITP 5474, ITP 5479
Computer Literacy Elective: OT 1850, OT 1863, OT 3058, IT 5102

## Deaf Studies Certificate (DSC)

Program Chair - Dawn Caudill
The Deaf Studies Certificate enables students to learn about sign language and deaf culture in order to provide services as an advocate or signer, but not as a paid professional interpreter.

## DEAF STUDIES CERTIFICATE

|  |  | Hours Per Week <br> Class |  |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Hours |  |  |  |  |  |
| FIRST TERM |  |  |  |  |  |
| ITP | $* 1091$ | Intermediate American Sign Language 1 | 3 | 2 | 4 |
| PSY | 1503 | Psychology of Deafness | 3 | 0 | 3 |
| SOC | 1520 | Orientation to Deafness | 3 | 0 | 3 |
| ITP | 5460 | Interpreting for the Deaf | 3 | 0 | 3 |
|  |  | 12 | 2 | 13 |  |

## SECOND TERM

ITP 1092 Intermediate American Sign Language $2 \quad 3 \quad 2 \quad 4$
$\begin{array}{llllll}\text { ITP } & 5462 & \text { Community Resources for Deaf } & 3 & 0 & 3\end{array}$
ITP 5463 Role of Interpreter 3003

ITP XXXX ITP ELECTIVE $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 12 | 2 | 13 |

## THIRD TERM

$\begin{array}{llllll}\text { ITP } & 1093 & \text { Intermediate American Sign Language } 3 & 3 & 2 & 4\end{array}$
$\begin{array}{llllll}\text { ITP } & 5464 & \text { Sign-to-Voice Interpreting } 1 & 3 & 2 & 4\end{array}$

ITP XXXX ITP ELECTIVE $\quad$| 3 | 0 | 3 |
| :---: | :---: | :---: |
| 9 | 4 | $\frac{11}{37}$ |

*Beginning ASL 1, 2, 3 (ITP 1086, ITP 1087, ITP 1088) or advisor approval of equivalent experience are prerequisites to Intermediate ASL 1.

ITP Electives: ITP 1089, ITP 5468, ITP 5474, ITP 5475, ITP 5478, ITP 5479

## Law Enforcement (ATSLE)

Advisor - Jan Hoeweler
The Law Enforcement program is an Associate of Technical Studies degree program. To enroll in this degree program, students must have a Basic Peace Officer Training Certificate issued by the Ohio Peace Officer Training Council.

## ASSOCIATE OF TECHNICAL STUDIES LAW ENFORCEMENT

To enroll in this program, a student must present proof of certification of OPOTA training.
All degree-seeking students must complete the course FYE 9002
College Success Strategies as part of the first 18 credit hours taken at Cincinnati State.

|  |  | Hours Per Week <br> Class | Credit <br> Lab | Hours |
| :--- | :--- | :---: | :---: | :---: |
| FIRST TERM |  | 0 | 0 | 0 |
| CRJ | 1299 | Special Studies-Criminal Justice |  |  |
| SECOND TERM | 3 | 0 | 3 |  |
| ENG | 1001 | English Composition 1 | 3 | 0 |
| MAT | 1121 | Business Mathematics 1 | 3 | 0 |
| 3 |  |  |  |  |
| PSY | 1505 | Introduction to Psychology 1 | 3 | 0 |
| CULT | 1602 | Issues in Human Diversity | 12 | 0 |

THIRD TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| SPE | $102 X$ | Speech Elective | 3 | 0 | 3 |
| MAT | 1122 | Business Mathematics 2 | 3 | 0 | 3 |
| PSY | 1506 | Introduction to Psychology 2 | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
|  |  |  | 0 | 15 |  |

## FOURTH TERM

| SPE | 1024 | Group Dynamics \& Problem Solving | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| ENG | $10 X X$ | English Composition Elective | 3 | 0 | 3 |
| PSY | 1507 | Abnormal Psychology | 3 | 0 | 3 |
| SOC | 1521 | Introduction to Sociology 1 | 3 | 0 | 3 |
| PHI | 1625 | Ethics | 3 | 0 | 3 |
|  |  |  | 15 | 0 | 15 |

FIFTH TERM

| CRJ | $12 X X$ | Criminal Justice Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :---: |
| PSY | 1510 | Psychology: Adolescent Development | 3 | 0 | 3 |
| MGT | XXXX | Management Elective | 3 | 0 | 3 |
| XXX | XXXX | Arts/Humanities Elective | 3 | 0 | 3 |
| XXX | XXXX | Arts/Humanities Elective | 3 | 0 | 3 |
|  |  | 15 | 0 | $\frac{15}{57}$ |  |

Speech Elective: SPE 1020, SPE 1023
English Composition Elective: ENG 1003, ENG 1010
Arts/Humanities Elective: PHI 1621, PHI 1630, PHI 1631, LIT 1040,
LIT 1045, LIT 1050, LIT 1051, LIT 1052, LIT 1053, LIT 1055,
LIT 1056, LIT 1057, SPN 1090, SPN 1080, ITP 1086
Criminal Justice Elective: CRJ 1251, CRJ 1253, CRJ 1254, CRJ 1255,
CRJ 1257, CRJ 1298
Management Elective: MGT 1832, MGT 2996

## Religious Studies Certificate (RSC)

Advisor - Samuel Rowe
The Religious Studies Certificate provides training for persons interested in working with religious organizations, churches, and faith-based organizations. Students who complete the Religious Studies Certificate may qualify for entry level positions in the following areas: local ministries, social services, health
and welfare ministries, chaplaincy, missions, education, business, communications, and religious communities. When combined with the Associate of Arts degree, the Religious Studies Certificate is an excellent starting point for students who plan to continue their education in religious studies, philosophy, or the behavioral and social sciences.

## RELIGIOUS STUDIES CERTIFICATE

|  |  | Hours Per Week <br> Class |  | Credit <br> Lab |
| :--- | :--- | :--- | :---: | :---: |
| FIRST TERM |  |  |  |  |
| ENG | 1001 | English Composition 1 | 3 | 0 |
| 3 |  |  |  |  |
| XXX | $10 X X$ | Language Elective | 4 | 0 |

## SECOND TERM

| ENG | 1002 | English Composition 2 | 3 | 0 | 3 |
| :--- | :--- | :--- | :---: | :--- | :---: |
| XXX | $10 X X$ | Language Elective | 4 | 0 | 4 |
| XXX | $15 X X$ | Social Science Elective | 3 | 0 | 3 |
| PHI | 1621 | Introduction to Philosophy | 3 | 0 | 3 |
| PHI | 1632 | Introduction to the Old Testament | 3 | 0 | 3 |
|  |  |  | 16 | 0 | 16 |

## THIRD TERM

| XXX | 10XX | Language Elective | 4 | 0 | 4 |
| :--- | :--- | :--- | :---: | :---: | :---: |
| CULT | 1602 | Issues in Human Diversity | 3 | 0 | 3 |
| PHI | 1630 | Comparative World Religions: Asia | 3 | 0 | 3 |
| PHI | 1633 | Introduction to the New Testament | 3 | 0 | 3 |
| XXX | 16 XX | Arts Elective | 3 | 0 | 3 |
|  |  | 16 | 0 | 16 |  |

## FOURTH TERM

| SPE | $102 X$ | Speech Elective | 3 | 0 | 3 |
| :--- | :--- | :--- | ---: | :--- | :--- |
| PHI | 1631 | Comparative World Religions: Middle East3 | 0 | 3 |  |
| PHI | 16 XX | Philosophy Elective | 3 | 0 | 3 |
| ACC | 2924 | Accounting for Non-Financial Managers | 3 | 0 | 3 |
| MGT | 2967 | Introduction to Management | 3 | 0 | 3 |
|  |  |  |  | 0 | $\frac{15}{615}$ |

ARTS Elective: ART 1660, ART 1662, ART 1663, ART 1664,
or MUS 1665, MUS 1666, MUS 1667
GEO Elective: GEO 1551, GEO 1552, GEO 1553
PHI Elective: PHI 1625, PHI 1626, PHI 1628
Social Science Elective: PSY 1505 or SOC 1521
SPE Elective: SPE 1020, SPE 1023, SPE 1024
Language Elective: 12 credits from FRN, SPN, or ITP 1086-96

## Sciences Division

Main Phone Number: (513) 569-1700
Sciences Division faculty are prepared for and dedicated to fulfilling the following Divisional goals:

- teaching the principles of physics, chemistry, and mathematics considered basic to successful studies in sciencedependent fields such as engineering technologies, health technologies, science and health laboratory sciences, or technical business services.
- teaching the principles of physics, chemistry, and mathematics considered essential to successful science studies within liberal arts programs.
- providing in-depth instruction which prepares students for bachelor's degree studies in scientific or mathematical fields after obtaining an Associate of Science degree at Cincinnati State.

Most students who earn an Associate of Science degree continue their studies at a four-year college or university. The Science Division is committed to the integration of language and reading skills, mathematics, and the understanding of scientific principles to provide a comprehensive problem-solving approach to learning. As a result, students receive a solid foundation for further study.
The Sciences Division emphasizes laboratory experiences, particularly in the laboratory-based chemistry and physics departments. Through observation and manipulation of laboratory materials, students gain genuine understanding of physical laws, concepts, and hypotheses and have opportunities to learn to use their own ingenuity while investigating and reporting on scientific issues and phenomena.

## Mathematics and Science Readiness

Enrollment in mathematics and science courses is based on a student's readiness, which is determined at the admissions process through assessment testing and advisor interviews. Students who need to enhance skills prior to enrolling in col-lege-level courses are assisted in selecting appropriate Developmental Education courses described elsewhere in this catalog. As a result, students enhance their opportunities for success in their mathematics and sciences courses.

## Cooperative Education

The Sciences Division shares Cincinnati State's commitment to cooperative education as an integral part of the curriculum. Cooperative education allows students to apply concepts learned in the classroom with practical, hands-on experience in real work environments. In some cases, degree-seeking students with prior work experience related to their post-baccalaureate career goals may be eligible to receive credit through the standard College procedures for granting Advanced Standing Credit. The program chair and cooperative education coordinator must approve all substitutions in advance.
For eligibility requirements, co-op registration policies, and other issues related to cooperative education, please refer to the "Cooperative Education" section of the catalog on page 31.

## Transfer Module

The Ohio Board of Regents developed the Transfer Module to facilitate transfer of credits from one Ohio public college or university to another. The Transfer Module contains 54 to 60 quarter hours of course credits in the areas of English, mathematics, arts and humanities, social and behavioral sciences, natural and physical sciences, and interdisciplinary studies. A Transfer Module completed at one college or university automatically meets the requirements for the Transfer Module at another college or university once the student is admitted. For additional information, see the "State of Ohio Policy for Institutional Transfer" and the "Transfer Module" sections of the College catalog.
The Associate of Science degree contains all of the required courses for the Transfer Module. Students who transfer to an Ohio public university for baccalaureate degrees will find that an Associate of Science degree leads to preferential consideration at the receiving institution.

## Associate of Sciences (ASCI)

Program Chair - Joyce Rimlinger
Co-op Coordinator - Linda Romero-Smith
Advisor - Julie McLaughlin
The Associate of Science degree prepares students to transfer to a four-year college or university to complete a bachelor's degree in such fields as biology, chemistry, physics, or science education; or to enter pre-dentistry, pre-medicine, pre-pharmacy, or pre-veterinary programs.
For a complete listing of degree requirements, see pages 74 to 78.

## Workforce Development Center and Continuing Education and Personal Enrichment

The Workforce Development Center offers professional development programs, quality technical training, and technology support through customized certificate and instructional programs, college credit linkages, and coordination with traditional academic studies. The Center recognizes the need for life-long learning and provides training and access to College resources that promote personal and professional enrichment, economic growth, and workforce development.
The Workforce Development Center is committed to:

- assisting employers by enhancing their labor pools through skill development
- improving individual workers competencies, or assisting jobseekers in acquiring skills for employment
- developing and maintaining strong, mutually beneficial partnerships with business, industry, government, non-profit agencies, and professional associations
- customizing training and technical assistance to meet employer and student needs and schedules
- implementing services in the workplace, at College facilities, or other locations as needed by the employer
- delivering efficient, cost-effective, prompt services
- providing results-driven learning services that improve business operations and bottom line profitability
- supporting the economic development of the tri-state region through improved workforce development coordination and services.
For further information regarding the Workforce Development Center, visit the Workforce Development Center Web page at http://www.cincinnatistate.edu/CorporatePartner/WorkforceDev elopment.
Several specialty areas of the Workforce Development Center offer technical certificates, specifically Disaster Response Management, Construction Safety, and various areas of Industrial Maintenance. These certificates are offered by the Workforce Development Center for employer-based scheduling and also as scheduled offerings during the year.
The Continuing Education and Personal Enrichment Program at Cincinnati State provides noncredit and credit offerings for individuals and groups to improve their knowledge of self and
surroundings. The ever-changing technology in the world, as well as the diversity of social and cultural experiences, challenges everyone to keep their skills updated and their interests explored. While most students taking Continuing Education offerings are not degree-seeking students, many offerings do carry college credits that can be applied to a degree program if desired.


## Disaster Response Management Certificate (HAZC)

The Disaster Response Management Certificate is a 22 credit hour program designed to meet the needs of emergency services personnel (fire, law enforcement, and emergency management) and private/public sector managers responsible for all types of emergency planning \& response operations. These courses are designed to meet the National Incident Management Systems (NIMS) standard in planning and response to an All-Hazards Emergency. Courses will address incident management response and planning, threat assessments, all types of hazardous material response operations, business/organization continuity operations and counter-terrorism planning and response. The certificate is a component of the Safety and Security Management degree.

## DISASTER RESPONSE MANAGEMENT CERTIFICATE

|  |  |  | $\begin{aligned} & \text { Hours Per Week } \\ & \text { Class Lab } \end{aligned}$ |  | $\begin{aligned} & \text { Credit } \\ & \text { Hours } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| THZ | 1010 | Basic Hazardous Materials Chemistry | 2 | 0 | 2 |
| TBE | 1010 | Introduction to |  |  |  |
|  |  | Incident and Crisis Management | 3 | 0 | 3 |
| THZ | 1020 | Management Issues in |  |  |  |
|  |  | Disaster Preparedness and Response | 3 | 0 | 3 |
| THZ | 1030 | Radiological and Biological |  |  |  |
|  |  | Emergency Preparedness Planning | 3 | 0 | 3 |
| THZ | 1040 | Introduction To Terrorism | 3 | 0 | 3 |
| THZ | 1041 | Consequences of Terrorism | 3 | 0 | 3 |
| THZ | 1050 | Disaster Forecasting and Modeling | 2 | 2 | 3 |
| THZ | 1060 | Media Relations in a Crisis | 2 | 2 | 2 |
|  |  |  | 21 | 4 | $\underline{22}$ |
|  |  |  |  |  | $\overline{22}$ |

## Construction Safety Specialist Certificate (CETCSC)

The Construction Safety Specialist Certificate is a 35 credit hour program designed to meet the needs of construction field supervisors and engineers who manage and oversee project and corporate health and safety programs. The Certificate also assists construction personnel in need of safety training for their success or desiring new opportunities within this field. The Certificate is a component of the Safety and Security Management degree. The Certificate prepares the student for the American Society of Safety Engineers (ASSE) Construction Health \& Safety Technician (CHST) national board exam.

## CONSTRUCTION SAFETY SPECIALIST CERTIFICATE

|  |  |  | $\underset{\substack{\text { Hours Per Week } \\ \text { Class } \\ \text { Lab }}}{\text { ata }}$ |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TOS | 1020 | Fall Protection Safety | 2 | 2 | 3 |
| TOS | 1021 | Excavation Safety | 2 | 2 | 3 |


| TOS | 1022 | Work Zone Safety | 2 | 0 | 2 |
| :--- | :--- | :--- | :---: | :--- | :--- |
| TOS | 1023 | Hoisting and Material Handling Safety | 2 | 2 | 3 |
| TOS | 1024 | Electrical Safety | 3 | 0 | 3 |
| TOS | 1030 | Safety Trainer | 2 | 0 | 2 |
| CET | 7971 | Construction Health \& Safety 1 | 3 | 0 | 3 |
| CET | 7972 | Construction Health \& Safety 2 | 3 | 0 | 3 |
| CET | 7973 | Construction Risk Management |  |  |  |
|  |  | \& Insurance 1 | 3 | 0 | 3 |
| CET | 7974 | Construction Safety Plan Management | 3 | 0 | 3 |
| CET | 7975 | Environmental Issues in Construction | 3 | 0 | 3 |
| CET | 7976 | Construction Safety Law | 4 | 0 | 4 |
|  |  |  | 32 | 6 | $\frac{35}{35}$ |

## Industrial Maintenance Program Certificate Options

The Industrial Maintenance Program provides individuals with Integrated Systems Technology (IST) maintenance skills. Integrated Systems Technology is a new career opportunity that involves cross-training in the areas of electrical, mechanical, and electronic systems. These evening certificate programs are designed for individuals currently working in maintenance or a related field who want to advance their careers. All Industrial Maintenance classes are conducted at the Workforce Development Center in Evendale.

## Industrial Electrical Maintenance Certificate (IEMC)

This certificate is a seven-month evening program designed by professionals in the field to provide the knowledge and handson experience necessary to work as an entry-level electrical maintenance technician with local industrial companies. Classes are designed for the hands-on learner. Extensive labs allow students the opportunity to practice their learning and skills on industrial applications and processes. All learning and skills lead to proficiency in the installation, maintenance, and troubleshooting of industrial electrical systems. This certificate program is used by several local companies for their apprentice training.

Industrial Electrical Maintenance Certificate


## Programmable Logic Controllers Certificate (PLCC)

This certificate is a 13 -week, 109 -hour evening program designed for individuals who will install, program, maintain, or troubleshoot Programmable Logic Controllers in an industrial setting. Students gain working knowledge of electrical ladder logics, the basis of PLC programming. Students learn the fun-
damentals of PLCs including processor configuration, I/O wiring, digital \& analog concepts, along with PLC program instructions. The advanced PLC class provides students with advanced programming instructions, remote $\mathrm{I} / \mathrm{O}$, introduction to Allen Bradley Device Net, and advanced troubleshooting. This program focuses on the Allen Bradley PLC-5 and SLC-500 PLCs and RSLogic programming.

## PROGRAMMABLE LOGIC CONTROLLERS CERTIFICATE

|  |  |  | Hours Per Week <br> Class | Lab | Hours <br> Hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| TEM | 1230 | Electrical Ladder Diagrams | 2 | 1 | 2 |
| TEM | 2010 | Programmable Logic Controllers 1 | 3 | 1 | 3 |
| TEM | 2020 | Programmable Logic Controllers 2 | 3 | 2 | 4 |
|  |  |  | 8 | 4 | 9 |

## Industrial Controls \& Instrumentation Certificate (ICIC)

This certificate is a 25 -week, 200-hour evening program designed by ISA certified controls experts. This program is for individuals with some electrical maintenance experience seeking advancement as an Industrial Controls Technician. Students gain working knowledge and hands-on troubleshooting experience in electrical controls, sensors, variable frequency drives, DMCS systems, controller tuning, and calibrations. Extensive hands-on training is provided in the industrial controls labs and in the operational process pilot plant. Students receive preparation for the ISA Certified Control Systems Technician exam.

## INDUSTRIAL CONTROLS \&

 INSTRUMENTATION CERTIFICATE|  |  |  | $\begin{aligned} & \text { Hours Per Week } \\ & \text { Class } \quad \text { Lab } \\ & \hline \end{aligned}$ |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TPI | 2110 | Industrial Controls \& Instrumentation 1: |  |  |  |
|  |  | Introduction \& Pressure Control | 3 | 1 | 3 |
| TPI | 2120 | Industrial Controls \& Instrumentation 2: |  |  |  |
|  |  | Temperature | 3 | 1 | 3 |
| TPI | 2130 | Industrial Controls \& Instrumentation 3: |  |  |  |
|  |  | Level \& Flow | 3 | 1 | 3 |
| TPI | 2140 | Industrial Controls \& Instrumentation 4: |  |  |  |
|  |  | Final Control Elements | 3 | 1 | 3 |
| TPI | 2150 | Industrial Controls \& Instrumentation 5: |  |  |  |
|  |  | Analytical Control | 3 | 1 | 3 |
|  |  |  | 15 | 5 | 15 |
|  |  |  |  |  | $\overline{15}$ |

## Machine Maintenance Certificate (MMC)

This certificate is designed for people with some mechanical maintenance experience who seek advancement in the maintenance field. This program provides the knowledge and handson experience necessary to install, maintain, and troubleshoot many mechanical and hydraulic systems. Classes are designed for the hands-on learner. Extensive labs allow students the opportunity to practice their learning and skills on industrial applications and processes.

|  |  | $\begin{aligned} & \text { Hours Per Week } \\ & \text { Class Lab } \end{aligned}$ |  | $\begin{aligned} & \text { Credit } \\ & \text { Hours } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| HYD 1011 | Basic Industrial Hydraulics 1 | 3 | 1 | 3 |
| MMC 2010 | Mechanical Drive Maintenance | 3 | 2 | 3 |
| MMC 2020 | Introduction to |  |  |  |
|  | Bearings, Seals \& Lubrication | 1 | 0.5 | 1 |
| MMC 2030 | Vibration Analysis for |  |  |  |
|  | Mechanical Systems | 2 | 1 | 2 |
| MMC 2040 | Laser Alignment for Mechanical Systems | 2 | 1 | 2 |
|  |  | 11 | 5.5 | 11 |



Course Number Index

| 0003 | DE | 1021 | TOS | 1078 | SPN | 1204 | DT | 1304 | ITT | 1449 | GC | 1578 | HST | 1695 | HN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0004 | DE | 22 | TOS | 79 | N | 205 | DT | 1305 | ITT | 1450 | GC | 1598 | SSC | 1696 | HNR |
| 0005 | DE | 023 | SPE | 1080 | SPN | 1206 | DT | 1306 | ITT | 1451 | GC | 601 | ASM | 698 | HUM |
| 10 | DE | 1023 | TOS | 081 | SPN | 207 | DT | 307 | ITT | 1480 | GC | 1602 | ASM | 1701 | ASM |
| 0011 | DE | 1024 | E | 1082 | SPN | 208 | DT | 1308 | ITT | 14 | GC | 1602 | CULT | 1703 | ASM |
| 18 | DE | 1024 | TOS | 083 | SPN | 209 | DT | 309 | ITT | 148 | GC | 1603 | ASM | 802 | SM |
| 20 | DE | 1027 | SPE | 08 | SPN | 220 | DT | 310 | ITT | 1484 | GC | 604 | ASM | 1804 | ASM |
| 0024 | DE | 1030 | THZ | 1085 | SPN | 22 | MRDD | 1311 | ITT | 1490 | GC | 1605 | ASM | 1804 | FIN |
| 25 | DE | 1030 | TOS | 086 | ITP | 221 | DT | 312 | ITT | 150 | ASM | 1606 | ASM | B0 | SM |
| 0060 | ESL | 1031 | U | 1087 | ITP | 1221 | MRDD | 1313 | ITT | 1502 | PSY | 610 | ASM | 1806 | ASM |
| 0061 | ESL | 10 | Jo | 1088 | ITP | 1222 | MRD | 1314 | ITT | 1503 | ASM | 1611 | ASM | 1807 | ASM |
| 0063 | ESL | 1033 | JOU | 089 | ITP | 1223 | RDD | 1315 | ITT | 1503 | PSY | 1620 | ASM | 808 | ASM |
| 0064 | ESL | 1036 | ENG | 1090 | SPN | 1224 | MRDD | 1316 | ITT | 1504 | ASM | 620 | PH | 1809 | AS |
| 009 | DE | 103 | ENG | 1091 | ITP | 22 | MRDD | 1317 | ITT | 1505 | PSY | 1621 | ASM | 1810 | ASM |
| 1000 | HIM | 1038 | EN | 092 | TP | 1226 | RDD | 318 | ITT | 150 | PSY | 162 | PHI | 81 | MKT |
| 1000 | SSM | 1039 | ENG | 1093 | ITP | 1230 | DT | 1319 | ITT | 1507 | PSY | 1622 | ASM | 1811 | ASM |
| 1000 | TTT | 1040 | LIT | 109 | ITP | 1230 | tem | 1320 | ITT | 150 | PSY | 1625 | PHI | 1812 | ASM |
| 01 | ENG | 1040 | THZ | 99 | ITP | 231 | DT | 132 | ITT | 1509 | SY | 162 | PHI | 181 | SCM |
| 1001 | HIM | 1041 | T | 1096 | ITP | 232 | DT | 13 | ITT | 1510 | PSY | 8 | PHI | 8 | SCM |
| 1001 | TBE | 1041 | THZ | 1098 | SPN | 1233 | DT | 132 | ITT | 1511 | PSY | 1630 | PH | 1820 | ASM |
| 01 | TOS | 1042 | LIT | 1099 | ENG | 240 | DT | 1324 | ITT | 1512 | ECO | 1631 | PHI | 822 | ASM |
| 10 | ENG | 1045 | LIT | 1105 | MAT | 240 | tem | 132 | ITT | 1513 | ECO | 1632 | PHI | 23 | Law |
| 1002 | TBE | 1046 | LIT | 1108 | MAT | 1241 | DT | 1326 | ITT | 151 | ECO | 1633 | PH | 1824 | Law |
| 1002 | TOS | 1047 | LIT | 1110 | MAT | 1242 | DT | 1327 | ITT | 1520 | SOC | 1645 | CUL | 1825 | LAW |
| 1003 | ENG | 10 | IT | 11 | MAT | 243 | DT | 132 | ITT | 152 | SOC | 1646 | CULT | 1827 | LAW |
| 1003 | TBE | 1049 | IT | 112 | MAT | 124 | DT | 132 | ITT | 152 | SOC | 1647 | CuLt | 1828 | Law |
| 1004 | ASM | 1050 | T | 1113 | MAT | 1245 | DT | 1330 | ITT | 1524 | SOC | 1648 | CUL | 1829 | LAW |
| 1004 | TBE | 1050 | THZ | 1121 | MAT | 250 | CRJ | 1360 | ITT | 1525 | SOC | 1660 | ART | 1830 | ASM |
| 1004 | THZ | 105 | LIT | 1122 | MAT | 1250 | DT | 136 | ITT | 152 | SOC | 1662 | ART | 1830 | LAW |
| 1005 | TBE | 1052 | LIT | 1123 | MAT | 1251 | CRJ | 1362 | ITT | 1528 | SOC | 1663 | ART | 1831 | LAW |
| 1005 | THZ | 1053 | LIT | 1124 | MAT | 1251 | DT | 1363 | ITT | 1530 | POL | 1664 | ART | 1832 | ASM |
| 1006 | TBE | 10 | LIT | 1128 | MAT | 1252 | CRJ | 136 | ITT | 15 | SOC | 1665 | MUS | 832 | MG |
| 1007 | tbe | 1055 | LIT | 1151 | MAT | 1252 | DT | 1365 | ITT | 1531 | POL | 1666 | mus | 1833 | MGT |
| 1008 | TBE | 1056 | LIT | 152 | MAT | 1253 | CRJ | 1366 | ITT | 1532 | POL | 1667 | MUS | 1834 | MGT |
| 100 | ENG | 1057 | LIT | 1154 | AT | 1253 | DT | 136 | ITT | 1533 | POL | 68 | MUS | 1838 | LAW |
| 1009 | tbe | 1058 | LIT | 1155 | MAT | 1254 | CRJ | 1368 | ITT | 1535 | LBR | 1670 | THE | 1839 | LAW |
| 1010 | ENG | 1059 | LIT | 156 | MAT | 1255 | CRJ | 1369 | ITT | 1537 | LBR | 1671 | THE | 1842 | ASM |
| 101 | MMC | 1060 | FRN | 1161 | AT | 1256 | CRJ | 1370 | ITT | 1538 | LBR | 2 | TH | 1844 | MK |
| 1010 | TBE | 106 | THZ | 162 | MAT | 257 | CRJ | 1371 | ITT | 1539 | LBR | 167 | THE | 1845 | KT |
| 1010 | tem | 106 | FR | 17 | MAT | 270 | SOC | 1403 | GC | 15 | LBR | 167 | THE | 18 | OT |
| 10 | THZ | 106 | FRN | 172 | MAT | 271 | SOC | 1410 | GC | 1551 | GEO | 1675 | TH | 1851 | ACC |
| 1010 | TOS | 1063 | FRN | 1173 | MAT | 1272 | SOC | 1415 | GC | 15 | GEO | 1678 | THE | 18 | ACC |
| 1011 | ENG | 106 | FRN | 1179 | MAT | 1273 | SOC | 1419 | GC | 1553 | GEO | 1680 | CUL | 1863 | От |
| 1011 | HYD | 1065 | FRN | 1191 | MAT | 1275 | tem | 1421 | GC | 15 | HST | 1681 | CULT | 1864 | OT |
| 1015 | ENG | 1070 | GRM | 1192 | MAT | 1285 | tem | 142 | GC | 156 | HST | 1683 | CULT | 1873 | MKT |
| 1017 | ENG | 10 | GRM | 1193 | MA | 1298 | CRJ | 1425 | GC | 1563 | HS | 1685 | ART | 1874 | MKT |
| 1018 | ENG | 1072 | GRM | 1198 | MAT | 1298 | DT | 1426 | GC | 1568 | HST | 1690 | ART | 1875 | LAW |
| 1019 | ENG | 1073 | GRM | 1199 | MAT | 1299 | CRJ | 1429 | GC | 1569 | HST | 1691 | ART | 1877 | SCM |
| 1020 | SPE | 107 | GRM | 120 | ASM | 129 | DT | 143 | GC | 157 | HST | 169 | ART | 18 | MKT |
| 1020 | THZ | 1075 | GRM | 1201 | DT | 1301 | ITT | 1431 | GC | 1575 | HST | 1693 | ART | 1879 | MKT |
| 1020 | TOS | 1076 | SPN | 1202 | DT | 1302 | ITT | 1439 | GC | 1576 | HST | 1694 | ART | 1880 | MKT |
| 021 | SPE | 10 | SPN | 1203 | DT | 1303 | ITT | 1440 | GC | 1577 | HST | 1695 | ART | 1883 | MKT |


| $\times$ | 1890 | ASM | 1992 | ITT | 2520 | ASM | 2901 | MKT | 2972 | MGT | 3501 | LH | 3631 | HRM | 4071 | PE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 1900 | ASM | 1993 | ITT | 2521 | ASM | 2902 | MKT | 2973 | BUS | 3502 | LH | 3632 | HRM | 4072 | BIO |
| ㄹ | 1901 | ITT | 1994 | ITT | 2522 | ASM | 2905 | MGT | 2974 | ACC | 3504 | LH | 3633 | HRM | 4073 | BIO |
|  | 1902 | ITT | 1995 | ITT | 2525 | ASM | 2906 | MGT | 2975 | MGT | 3505 | LH | 3634 | HRM | 4074 | BIO |
| (1) | 1903 | ITT | 1996 | ITT | 2526 | ASM | 2907 | MGT | 2976 | FIN | 3506 | LH | 3635 | HRM | 4075 | BIO |
| O | 1904 | ITT | 1999 | BUS | 2527 | ASM | 2908 | MGT | 2977 | MGT | 3507 | LH | 3636 | HRM | 4075 | PE |
| E | 1905 | ITT | 2010 | MMC | 2528 | ASM | 2909 | MKT | 2980 | ITM | 3508 | LH | 3638 | HRM | 4076 | PE |
| F | 1906 | ITT | 2010 | TEM | 2530 | ASM | 2910 | MGT | 2981 | ITM | 3509 | LH | 3640 | HRM | 4077 | PE |
| $Z$ | 1907 | ITT | 2020 | MMC | 2531 | ASM | 2911 | ACC | 2983 | ITM | 3510 | LH | 3641 | HRM | 4078 | PE |
| c | 1908 | ITT | 2020 | TEM | 2532 | ASM | 2912 | ACC | 2986 | MGT | 3511 | LH | 3652 | HRM | 4081 | BIO |
| O | 1909 | ITT | 2030 | MMC | 2533 | ASM | 2913 | ACC | 2987 | MGT | 3513 | LH | 3653 | HRM | 4081 | PE |
| 5 | 1910 | ITT | 2040 | MMC | 2534 | ASM | 2914 | ACC | 2988 | MGT | 3515 | LH | 3670 | CUL | 4082 | BIO |
|  | 1911 | ITT | 2110 | TEM | 2535 | ASM | 2915 | ACC | 2989 | MGT | 3516 | LH | 3671 | CUL | 4083 | BIO |
| U | 1912 | ITT | 2110 | TPI | 2536 | ASM | 2917 | ACC | 2990 | MKT | 3517 | LH | 4001 | MCH | 4085 | IMT |
|  | 1913 | ITT | 2120 | TPI | 2540 | ASM | 2918 | ACC | 2996 | MGT | 3518 | LH | 4001 | SSM | 4086 | IMT |
|  | 1914 | ITT | 2130 | TPI | 2541 | ASM | 2919 | ACC | 2997 | MKT | 3519 | LH | 4002 | MCH | 4087 | IMT |
|  | 1915 | ITT | 2140 | TPI | 2542 | ASM | 2920 | ACC | 2998 | MKT | 3520 | LH | 4002 | SSM | 4088 | IMT |
|  | 1916 | ITT | 2150 | TPI | 2545 | ASM | 2921 | ACC | 3002 | OT | 3523 | LH | 4003 | SSM | 4089 | IMT |
|  | 1917 | ITT | 2200 | CHE | 2550 | ASM | 2922 | ACC | 3003 | OT | 3524 | LH | 4004 | SSM | 4092 | BIO |
|  | 1918 | ITT | 2202 | CHE | 2551 | ASM | 2924 | ACC | 3005 | OT | 3525 | LH | 4005 | SSM | 4093 | BIO |
|  | 1919 | ITT | 2203 | CHE | 2555 | ASM | 2925 | BUS | 3006 | OT | 3526 | LH | 4009 | BIO | 4094 | HLT |
|  | 1920 | ITT | 2221 | PHY | 2560 | ASM | 2926 | ACC | 3007 | OT | 3528 | LH | 4011 | CLT | 4095 | BIO |
|  | 1921 | ITT | 2222 | PHY | 2561 | ASM | 2927 | ACC | 3016 | OT | 3529 | LH | 4014 | BIO | 4097 | BIO |
|  | 1922 | ITT | 2223 | PHY | 2565 | ASM | 2929 | MGT | 3017 | OT | 3530 | LH | 4015 | BIO | 4098 | HFT |
|  | 1923 | ITT | 2224 | PHY | 2570 | ASM | 2931 | RE | 3018 | OT | 3532 | LH | 4016 | BIO | 4099 | BIO |
|  | 1924 | ITT | 2231 | CHE | 2599 | ASM | 2932 | RE | 3019 | OT | 3533 | LH | 4018 | BIO | 4099 | PE |
|  | 1930 | ITT | 2232 | CHE | 2804 | HRM | 2933 | RE | 3021 | OT | 3534 | LH | 4019 | BIO | 4120 | HFT |
|  | 1931 | ITT | 2233 | CHE | 2808 | HRM | 2937 | SCM | 3022 | OT | 3535 | LH | 4020 | BIO | 4120 | SSM |
|  | 1932 | ITT | 2236 | CHE | 2819 | CUL | 2938 | SCM | 3023 | OT | 3536 | LH | 4021 | BIO | 4121 | HFT |
|  | 1933 | ITT | 2244 | PHY | 2822 | CUL | 2939 | SCM | 3024 | OT | 3537 | LH | 4022 | BIO | 4121 | SSM |
|  | 1934 | ITT | 2245 | PHY | 2823 | CUL | 2940 | SCM | 3032 | OT | 3538 | LH | 4023 | CLT | 4122 | HFT |
|  | 1935 | ITT | 2251 | CHE | 2826 | CUL | 2941 | ACC | 3035 | OT | 3539 | LH | 4024 | CLT | 4122 | SSM |
|  | 1936 | ITT | 2252 | CHE | 2831 | CUL | 2942 | ACC | 3036 | OT | 3540 | LH | 4030 | PE | 4123 | HFT |
|  | 1937 | ITT | 2253 | CHE | 2832 | CUL | 2943 | ACC | 3058 | OT | 3544 | LH | 4041 | PE | 4124 | HFT |
|  | 1938 | ITT | 2264 | PSC | 2833 | CUL | 2945 | ACC | 3064 | OT | 3546 | LH | 4042 | PE | 4141 | HFT |
|  | 1939 | ITT | 2265 | PSC | 2834 | CUL | 2946 | ACC | 3066 | OT | 3547 | LH | 4050 | PE | 4142 | HFT |
|  | 1940 | ITT | 2267 | PSC | 2835 | CUL | 2947 | ACC | 3068 | OT | 3548 | LH | 4051 | PE | 4143 | HFT |
|  | 1941 | ITT | 2269 | PSC | 2836 | CUL | 2948 | ACC | 3069 | OT | 3549 | LH | 4053 | PE | 4144 | HFT |
|  | 1942 | ITT | 2270 | PHY | 2837 | CUL | 2949 | ACC | 3070 | OT | 3550 | LH | 4054 | PE | 4145 | HFT |
|  | 1943 | ITT | 2277 | PSC | 2850 | PAS | 2950 | ACC | 3073 | OT | 3552 | LH | 4055 | PE | 4146 | HFT |
|  | 1944 | ITT | 2281 | CHE | 2851 | PAS | 2951 | RE | 3074 | OT | 3554 | LH | 4056 | PE | 4147 | HFT |
|  | 1950 | ITT | 2282 | CHE | 2853 | PAS | 2953 | RE | 3075 | OT | 3556 | LH | 4057 | PE | 4148 | HFT |
|  | 1951 | ITT | 2283 | CHE | 2854 | HRM | 2954 | RE | 3076 | OT | 3599 | LH | 4058 | HFT | 4149 | HFT |
|  | 1952 | ITT | 2284 | CHE | 2860 | PAS | 2956 | RE | 3092 | OT | 3601 | CUL | 4059 | PE | 4150 | HFT |
|  | 1970 | ITT | 2285 | CHE | 2861 | PAS | 2958 | RE | 3093 | OT | 3602 | CUL | 4060 | HFT | 4151 | HFT |
|  | 1971 | ITT | 2286 | CHE | 2862 | PAS | 2959 | RE | 3094 | BUS | 3603 | CUL | 4060 | PE | 4152 | HFT |
|  | 1972 | ITT | 2291 | PHY | 2863 | PAS | 2960 | FIN | 3095 | OT | 3604 | CUL | 4062 | PE | 4153 | HFT |
|  | 1973 | ITT | 2292 | PHY | 2864 | PAS | 2961 | FIN | 3110 | MGT | 3605 | CUL | 4063 | PE | 4154 | HFT |
|  | 1974 | ITT | 2293 | PHY | 2865 | PAS | 2962 | FIN | 3111 | MGT | 3606 | CUL | 4064 | PE | 4160 | HFT |
|  | 1975 | ITT | 2294 | PHY | 2866 | PAS | 2963 | MGT | 3112 | MGT | 3607 | CUL | 4065 | PE | 4161 | HFT |
|  | 1976 | ITT | 2295 | PHY | 2867 | PAS | 2965 | MGT | 3113 | MGT | 3608 | CUL | 4066 | PE | 4162 | HFT |
|  | 1977 | ITT | 2296 | PHY | 2868 | PAS | 2966 | MGT | 3114 | MGT | 3609 | CUL | 4067 | PE | 4163 | HFT |
|  | 1978 | ITT | 2297 | PHY | 2869 | PAS | 2967 | MGT | 3115 | MGT | 3610 | CUL | 4068 | PE | 4164 | HFT |
|  | 1979 | ITT | 2298 | CHE | 2870 | CUL | 2968 | FIN | 3116 | MGT | 3611 | CUL | 4069 | PE | 4165 | HFT |
|  | 1980 | ITT | 2299 | CHE | 2871 | CUL | 2970 | MGT | 3117 | MGT | 3612 | CUL | 4070 | PE | 4166 | HFT |
|  | 1990 | ITT | 2299 | PSC | 2899 | CUL | 2971 | MGT | 3500 | LH | 3630 | HRM | 4071 | BIO | 4167 | HFT |


| 4168 | HFT | 4313 | CLT | 4422 | HIM | 4633 | OTA | 4720 | RT | 4777 | FST | 4893 | IMT | 5152 | IT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4169 | HFT | 4314 | CLT | 4428 | HIM | 4634 | DMS | 4723 | RT | 4778 | FST | 4894 | IMT | 5153 | IT |
| 4170 | HFT | 4317 | CLT | 4429 | HIM | 4635 | DMS | 4730 | EMS | 4779 | FST | 4895 | IMT | 5154 | IT |
| 4171 | HFT | 4321 | CLT | 4431 | HIM | 4636 | DMS | 4731 | EMS | 4780 | FST | 4897 | IMT | 5155 | IT |
| 4172 | HFT | 4322 | CLT | 4432 | HIM | 4636 | OTA | 4733 | EMS | 4782 | EMS | 4899 | IMT | 5199 | IT |
| 4173 | HFT | 4323 | CLT | 4449 | HIM | 4637 | DMS | 4734 | EMS | 4783 | FST | 4899 | MCH | 5201 | IT |
| 4174 | HFT | 4340 | CLT | 4450 | HIM | 4638 | DMS | 4735 | EMS | 4784 | FST | 4918 | NUR | 5202 | IT |
| 4175 | HFT | 4350 | CLT | 4451 | HIM | 4640 | DMS | 4736 | EMS | 4785 | FST | 4920 | NUR | 5204 | IT |
| 4176 | HFT | 4353 | CLT | 4452 | HIM | 4641 | DMS | 4737 | EMS | 4786 | FST | 4922 | NUR | 5205 | IT |
| 4177 | HFT | 4356 | ECE | 4453 | HIM | 4642 | DMS | 4738 | EMS | 4787 | FST | 4923 | NUR | 5206 | IT |
| 4178 | HFT | 4357 | ECE | 4490 | HIM | 4643 | DMS | 4739 | EMS | 4788 | FST | 4924 | NUR | 5207 | IT |
| 4180 | HFT | 4358 | ECE | 4499 | HIM | 4644 | DMS | 4740 | EMS | 4789 | FST | 4925 | NUR | 5208 | IT |
| 4180 | PE | 4359 | ECE | 4505 | ST | 4645 | DMS | 4740 | FST | 4790 | FST | 4926 | NUR | 5211 | IT |
| 4181 | HFT | 4360 | ECE | 4506 | ST | 4646 | DMS | 4741 | EMS | 4791 | FST | 4927 | NUR | 5212 | IT |
| 4182 | HFT | 4361 | ECE | 4531 | ST | 4647 | DMS | 4741 | FST | 4792 | FST | 4928 | NUR | 5216 | IT |
| 4183 | HFT | 4362 | ECE | 4532 | ST | 4648 | DMS | 4742 | EMS | 4793 | FST | 4931 | NUR | 5217 | IT |
| 4185 | HFT | 4363 | ECE | 4533 | ST | 4649 | DMS | 4742 | FST | 4797 | EMS | 4933 | NUR | 5220 | IT |
| 4186 | HFT | 4364 | ECE | 4534 | ST | 4650 | DMS | 4743 | EMS | 4798 | EMS | 4937 | NUR | 5221 | IT |
| 4199 | HFT | 4365 | ECE | 4535 | ST | 4651 | OTA | 4743 | FST | 4798 | FST | 4941 | NUR | 5224 | IT |
| 4200 | MA | 4366 | ECE | 4538 | ST | 4652 | OTA | 4744 | EMS | 4799 | EMS | 4943 | NUR | 5225 | IT |
| 4201 | MA | 4367 | ECE | 4541 | ST | 4653 | OTA | 4745 | EMS | 4799 | FST | 4946 | NUR | 5227 | IT |
| 4201 | SSM | 4368 | ECE | 4542 | ST | 4654 | DMS | 4745 | FST | 4803 | MCH | 4953 | NUR | 5228 | IT |
| 4202 | MA | 4369 | ECE | 4543 | ST | 4655 | DMS | 4746 | EMS | 4804 | MCH | 4954 | NUR | 5229 | IT |
| 4202 | SSM | 4370 | ECE | 4544 | ST | 4656 | DMS | 4746 | FST | 4805 | MCH | 4956 | NUR | 5230 | IT |
| 4203 | MA | 4371 | ECE | 4551 | ST | 4660 | OTA | 4747 | EMS | 4806 | MCH | 4963 | NUR | 5231 | IT |
| 4203 | SSM | 4372 | ECE | 4552 | ST | 4661 | OTA | 4747 | FST | 4807 | MCH | 4964 | NUR | 5232 | IT |
| 4204 | MA | 4374 | ECE | 4553 | ST | 4672 | DMS | 4748 | EMS | 4808 | MCH | 4973 | NUR | 5233 | IT |
| 4204 | SSM | 4375 | ECE | 4565 | ST | 4673 | DMS | 4748 | FST | 4810 | MCH | 4981 | NUR | 5234 | IT |
| 4205 | MA | 4376 | ECE | 4566 | ST | 4674 | DMS | 4749 | EMS | 4812 | MCH | 4982 | NUR | 5240 | IT |
| 4206 | MA | 4377 | ECE | 4567 | ST | 4675 | DMS | 4749 | FST | 4813 | MCH | 4993 | NUR | 5241 | IT |
| 4207 | MA | 4378 | ECE | 4580 | ST | 4676 | DMS | 4750 | EMS | 4814 | MCH | 4998 | NUR | 5247 | IT |
| 4209 | MA | 4381 | ECE | 4581 | ST | 4677 | DMS | 4750 | FST | 4816 | MCH | 4999 | NUR | 5251 | IT |
| 4210 | MA | 4382 | ECE | 4584 | ST | 4678 | DMS | 4751 | EMS | 4817 | HFT | 5001 | TC | 5252 | IT |
| 4211 | MA | 4383 | ECE | 4585 | ST | 4680 | OTA | 4752 | EMS | 4818 | HFT | 5010 | TC | 5266 | IT |
| 4213 | MA | 4384 | ECE | 4586 | ST | 4681 | OTA | 4755 | EMS | 4819 | MCH | 5020 | TC | 5267 | IT |
| 4215 | MA | 4386 | ECE | 4590 | ST | 4682 | OTA | 4760 | EMS | 4840 | MCH | 5021 | TC | 5268 | IT |
| 4220 | MA | 4387 | ECE | 4592 | ST | 4683 | DMS | 4760 | FST | 4841 | MCH | 5032 | TC | 5269 | IT |
| 4221 | MA | 4388 | ECE | 4593 | ST | 4684 | DMS | 4761 | EMS | 4842 | MCH | 5033 | TC | 5271 | IT |
| 4224 | MA | 4389 | ECE | 4594 | ST | 4685 | DMS | 4761 | FST | 4850 | IMT | 5034 | TC | 5272 | IT |
| 4245 | MA | 4392 | CLT | 4598 | ST | 4687 | DMS | 4762 | EMS | 4852 | IMT | 5035 | TC | 5273 | IT |
| 4298 | MA | 4393 | CLT | 4600 | OTA | 4699 | OTA | 4763 | EMS | 4855 | IMT | 5037 | TC | 5274 | IT |
| 4301 | CLT | 4394 | CLT | 4601 | OTA | 4701 | RT | 4764 | EMS | 4856 | IMT | 5041 | TC | 5275 | IT |
| 4301 | SSM | 4400 | HIM | 4610 | OTA | 4702 | RT | 4765 | EMS | 4857 | IMT | 5042 | TC | 5276 | IT |
| 4302 | CLT | 4401 | HIM | 4611 | OTA | 4703 | RT | 4766 | EMS | 4858 | IMT | 5071 | TC | 5277 | IT |
| 4303 | CLT | 4401 | SSM | 4612 | OTA | 4704 | RT | 4767 | EMS | 4859 | IMT | 5089 | TC | 5278 | IT |
| 4303 | SSM | 4402 | SSM | 4613 | OTA | 4705 | RT | 4768 | EMS | 4870 | MCH | 5098 | TC | 5291 | IT |
| 4304 | CLT | 4403 | SSM | 4614 | OTA | 4706 | RT | 4769 | EMS | 4871 | MCH | 5099 | TC | 5292 | IT |
| 4304 | SSM | 4404 | SSM | 4620 | OTA | 4707 | RT | 4770 | EMS | 4880 | MCH | 5102 | IT | 5293 | IT |
| 4305 | CLT | 4407 | HIM | 4621 | OTA | 4711 | RT | 4771 | EMS | 4881 | MCH | 5120 | IT | 5294 | IT |
| 4306 | CLT | 4409 | HIM | 4622 | OTA | 4712 | RT | 4772 | EMS | 4882 | MCH | 5121 | IT | 5295 | IT |
| 4307 | CLT | 4410 | HIM | 4623 | OTA | 4713 | RT | 4772 | FST | 4883 | MCH | 5122 | IT | 5299 | IT |
| 4308 | CLT | 4411 | HIM | 4624 | OTA | 4714 | RT | 4773 | EMS | 4884 | MCH | 5125 | IT | 5310 | IT |
| 4309 | CLT | 4415 | HIM | 4625 | OTA | 4715 | RT | 4773 | FST | 4885 | MCH | 5128 | IT | 5311 | IT |
| 4310 | CLT | 4417 | HIM | 4631 | OTA | 4716 | RT | 4774 | FST | 4886 | MCH | 5130 | IT | 5312 | IT |
| 4311 | CLT | 4420 | HIM | 4632 | DMS | 4718 | RT | 4775 | FST | 4891 | IMT | 5131 | IT | 5314 | IT |
| 4312 | CLT | 4421 | HIM | 4633 | DMS | 4719 | RT | 4776 | FST | 4892 | IMT | 5151 | IT | 5315 | IT |


| $x$ | 5320 | IT | 5478 | ITP | 6768 | LOT | 7310 | MET | 7728 | EET | 7943 | CET | 8172 | AVT | 9249 | RE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | 5321 | IT | 5479 | ITP | 6799 | LOT | 7320 | MET | 7730 | EET | 7944 | CET | 8180 | AVT | 9250 | CM |
| E | 5322 | IT | 5480 | ITP | 6810 | OPT | 7330 | MET | 7733 | EET | 7945 | CET | 8181 | AVT | 9251 | CM |
|  | 5323 | IT | 5481 | ITP | 6812 | OPT | 7340 | MET | 7736 | EET | 7946 | CET | 8182 | AVT | 9252 | ITM |
| (1) | 5324 | IT | 5482 | ITP | 6820 | OPT | 7345 | MET | 7737 | PSET | 7947 | CET | 8183 | AVT | 9253 | ITM |
| O | 5325 | IT | 5483 | ITP | 6830 | OPT | 7346 | MET | 7738 | EET | 7948 | CET | 8185 | AVT | 9254 | ECM |
| E | 5326 | IT | 5499 | ITP | 6831 | OPT | 7351 | MET | 7739 | BMT | 7949 | CET | 8190 | AVT | 9255 | ECM |
| 5 | 5329 | IT | 5522 | IT | 6833 | OPT | 7355 | MET | 7740 | EET | 7950 | CET | 8191 | AVT | 9300 | ET |
| $Z$ | 5331 | IT | 5523 | IT | 6841 | OPT | 7360 | MET | 7747 | PSET | 7953 | CET | 8199 | AVT | 9320 | HLT |
| (1) | 5332 | IT | 5524 | IT | 6843 | OPT | 7600 | EVET | 7748 | EET | 7954 | CET | 8200 | AVT | 9362 | EMS |
| $\mathscr{}$ | 5333 | IT | 5525 | IT | 6845 | OPT | 7601 | EVET | 7749 | BMT | 7955 | CET | 8201 | AVT | 9368 | HFT |
| E | 5340 | IT | 5526 | IT | 6851 | OPT | 7602 | EVET | 7750 | EET | 7956 | CET | 8202 | AVT | 9372 | NUR |
| $\bigcirc$ | 5351 | IT | 5530 | IT | 6855 | OPT | 7603 | EVET | 7751 | EET | 7958 | CET | 8300 | AVT | 9373 | HIM |
|  | 5352 | IT | 5531 | IT | 6857 | OPT | 7604 | EVET | 7757 | PSET | 7959 | CET | 8306 | AVT | 9374 | CLT |
|  | 5355 | IT | 5540 | IT | 6867 | OPT | 7605 | EVET | 7758 | EMT | 7963 | CET | 8310 | AVT | 9376 | RT |
|  | 5361 | IT | 5541 | IT | 6899 | OPT | 7607 | EVET | 7759 | BMT | 7964 | CET | 8311 | AVT | 9378 | HFT |
|  | 5362 | IT | 5543 | IT | 7001 | EET | 7608 | EVET | 7767 | PSET | 7968 | CET | 8320 | AVT | 9386 | RT |
|  | 5363 | IT | 5545 | IT | 7002 | MET | 7609 | EVET | 7768 | EET | 7969 | CET | 8321 | AVT | 9387 | MA |
|  | 5380 | IT | 5546 | IT | 7003 | EMT | 7610 | EVET | 7771 | EET | 7971 | CET | 8330 | AVT | 9388 | MA |
|  | 5410 | IT | 5570 | IT | 7004 | ET | 7611 | EVET | 7771 | PSET | 7972 | CET | 8331 | AVT | 9400 | ET |
|  | 5420 | IT | 5571 | IT | 7005 | ET | 7612 | EVET | 7778 | EET | 7973 | CET | 8500 | ITE | 9401 | ET |
|  | 5432 | IT | 5580 | IT | 7005 | MET | 7613 | EVET | 7779 | EET | 7974 | CET | 8700 | ITE | 9500 | IT |
|  | 5435 | IT | 5598 | IT | 7006 | EMT | 7614 | EVET | 7780 | EET | 7975 | CET | 8900 | ITE | 9501 | IT |
|  | 5436 | IT | 5599 | IT | 7007 | EET | 7616 | EVET | 7781 | EET | 7976 | CET | 9002 | FYE | 9801 | HUM |
|  | 5441 | IT | 6270 | QCC | 7015 | EVET | 7617 | EVET | 7790 | PSET | 7977 | CET | 9003 | FYE | 9802 | HUM |
|  | 5443 | IT | 6272 | QCC | 7024 | CET | 7618 | EVET | 7791 | EMTR | 7981 | CET | 9014 | CAR | 9803 | HUM |
|  | 5444 | IT | 6273 | QCC | 7025 | CET | 7622 | EVS | 7792 | EMTR | 7982 | CET | 9015 | CAR | 9804 | HUM |
|  | 5445 | IT | 6274 | QCC | 7026 | CET | 7623 | EVS | 7793 | EMTR | 7990 | CET | 9100 | SSM | 9805 | HUM |
|  | 5446 | IT | 6275 | QCC | 7099 | ET | 7624 | EVS | 7794 | EMTR | 7991 | CET | 9200 | BT | 9806 | HUM |
|  | 5447 | IT | 6276 | QCC | 7108 | MET | 7640 | EVET | 7799 | EET | 7992 | CET | 9200 | SSM | 9807 | HUM |
|  | 5449 | IT | 6277 | QCC | 7110 | MET | 7643 | EVET | 7801 | IDT | 7993 | CET | 9201 | SSM | 9900 | ECE |
|  | 5451 | IT | 6278 | QCC | 7111 | MET | 7644 | EVET | 7805 | ITD | 7994 | CET | 9210 | SSM | 9901 | ECE |
|  | 5452 | IT | 6279 | QCC | 7120 | MET | 7646 | EVET | 7825 | IDT | 7999 | CET | 9211 | SSM | 9902 | ECE |
|  | 5453 | IT | 6299 | QCC | 7121 | MET | 7647 | EVET | 7850 | IDT | 8100 | AVT | 9218 | TMGT |  |  |
|  | 5454 | IT | 6611 | CMT | 7122 | MET | 7648 | EVET | 7855 | IDT | 8101 | AVT | 9219 | TMGT |  |  |
|  | 5455 | IT | 6618 | CMT | 7125 | MET | 7670 | EVET | 7870 | IDT | 8102 | AVT | 9220 | ACC |  |  |
|  | 5456 | IT | 6619 | CMT | 7130 | MET | 7671 | EVET | 7880 | IDT | 8106 | AVT | 9221 | ASM |  |  |
|  | 5457 | IT | 6621 | CMT | 7132 | MET | 7672 | EVET | 7890 | IDT | 8107 | AVT | 9222 | BUS |  |  |
|  | 5458 | IT | 6631 | CMT | 7140 | MET | 7675 | EVET | 7910 | CET | 8108 | AVT | 9223 | GC |  |  |
|  | 5459 | ITP | 6641 | CMT | 7141 | MET | 7676 | EVET | 7913 | CET | 8109 | AVT | 9224 | HOSP |  |  |
|  | 5460 | ITP | 6649 | CMT | 7145 | MET | 7677 | EVET | 7914 | CET | 8130 | AVT | 9225 | LH |  |  |
|  | 5461 | ITP | 6651 | CMT | 7146 | EMT | 7680 | EVET | 7915 | CET | 8131 | AVT | 9227 | OT |  |  |
|  | 5462 | ITP | 6698 | CMT | 7148 | MET | 7681 | EVET | 7915 | PSET | 8132 | AVT | 9228 | PBA |  |  |
|  | 5463 | ITP | 6699 | PSC | 7150 | MET | 7682 | EVET | 7920 | CET | 8140 | AVT | 9229 | RE |  |  |
|  | 5464 | ITP | 6710 | LOT | 7152 | MET | 7683 | EVET | 7921 | CET | 8142 | AVT | 9230 | BUS |  |  |
|  | 5465 | ITP | 6715 | LOT | 7154 | EMT | 7699 | EVET | 7926 | CET | 8143 | AVT | 9231 | BUS |  |  |
|  | 5466 | ITP | 6720 | LOT | 7155 | MET | 7701 | EET | 7927 | CET | 8150 | AVT | 9232 | BUS |  |  |
|  | 5467 | ITP | 6730 | LOT | 7157 | EMT | 7705 | EET | 7928 | CET | 8151 | AVT | 9233 | BUS |  |  |
|  | 5468 | ITP | 6735 | LOT | 7158 | MET | 7706 | EET | 7930 | CET | 8152 | AVT | 9240 | ACC |  |  |
|  | 5470 | ITP | 6736 | LOT | 7167 | EMT | 7707 | EET | 7931 | CET | 8154 | AVT | 9241 | ASM |  |  |
|  | 5471 | ITP | 6740 | LOT | 7198 | MET | 7710 | EET | 7934 | CET | 8155 | AVT | 9242 | BUS |  |  |
|  | 5472 | ITP | 6741 | LOT | 7199 | MET | 7711 | EET | 7935 | CET | 8160 | AVT | 9243 | GC |  |  |
|  | 5474 | ITP | 6745 | LOT | 7220 | MET | 7716 | EET | 7936 | CET | 8161 | AVT | 9244 | HOSP |  |  |
|  | 5475 | ITP | 6749 | LOT | 7230 | MET | 7718 | PSET | 7940 | CET | 8162 | AVT | 9245 | LH |  |  |
|  | 5476 | ITP | 6750 | LOT | 7240 | MET | 7720 | EET | 7941 | CET | 8170 | AVT | 9247 | OT |  |  |
|  | 5477 | ITP | 6758 | LOT | 7250 | MET | 7721 | EET | 7942 | CET | 8171 | AVT | 9248 | PBA |  |  |

## ACC Accounting

1851 Auditing 3-0-3
A course on auditing techniques and procedures for manual and computer-based accounting. Topics include: review of internal control, preparing audit programs, flowcharts, and working papers and internal auditing.
Prerequisites: ACC 2913 or ACC 2927.
1856 Accounting Information Systems
3-0-3
A course on the documentation, design, and operation of an accounting information system. Topics include: internal control, business processes, and development of an accounting information system. Students learn to flowchart an accounting information system and to evaluate accounting software.
Prerequisites: ACC 2927.

## 2911 Principles of Accounting 1

3-2-4
A course on principles and practices of basic accounting. Topics include: journalizing, posting, and adjusting accounts and preparing financial statements for both service and merchandising companies. Students complete a manual practice set.
Prerequisites: MAT 1121 or MAT 1151 or MAT 1124 or appropriate COMPASS test score.

2912 Principles of Accounting 2
4-0-4
A continuation of ACC 2911. Topics include: cash, bank reconciliations, accounts receivable, accounting for bad debts, inventory methods, long-term assets, depreciation methods, current liabilities, and payroll accounting.
Prerequisites: ACC 2911 or ACC 2926.

## 2913 Principles of Accounting 3

4-0-4
A continuation of ACC 2912. Topics include: partnership, corporations, earnings per share, retained earnings, dividends, bonds, investments, working capital, statements of cash flow, and analysis of financial statements.
Prerequisites: ACC 2912 or ACC 2926.
2914 Cost Accounting 1
3-0-3
An introduction to the principles and practices of cost accounting. Topics include: manufacturing costs, cost terminology, cost flows, and allocation of overhead costs and product costing using the job order costing system.
Prerequisites: ACC 2912 or ACC 2926.
2915 Cost Accounting 2
3-0-3
A continuation of ACC 2914. Topics include: the process costing system, lost units, joint products and by-products, standard costing and variance analysis, and an introduction to cost management systems.
Prerequisites: ACC 2914.

## 2917 Federal Taxation 1

A study of Federal income tax as it relates to the individual taxpayer. The course deals in general terms with the most common aspects of taxes as they relate to the individual and to business.
Prerequisites: None.

## 2918 Federal Taxation 2

3-0-3
A study of Federal income tax. Topics include: corporations, partnerships, S corporations, and property transactions.
Prerequisites: None.
2919 Intermediate Accounting 1
A continuation of ACC 2913. Topics include: preparation and analysis of all four financial statements and required disclosures;
special problems in accounting for current assets such as cash, accounts, and notes receivable; and inventory.
Prerequisites: ACC 2913 or ACC 2927.
2920 Intermediate Accounting 2
3-0-3
A continuation of ACC 2919. Topics include: plant assets, investments, liabilities, contributed capital, and retained earnings.
Prerequisites: ACC 2919.

2921 Managerial Accounting
5-0-5
A course on the accounting concepts and procedures relevant to preparing reports used by management for planning, controlling, and decision making. Topics include: cost-volume profit analysis, job-order costing, activity based costing, and budgeting.
Prerequisites: ACC 2913 or ACC 2927.

2922 Computerized Accounting Applications
2-2-3
A course on processing typical business transactions using computerized accounting software. Topics include: integrated accounting applications such as general ledger, accounts receivable, accounts payable, payroll, fixed assets, and depreciation and inventory.
Laboratory work uses software similar to programs used in business and industry.
Prerequisites: ACC 2912 or ACC 2926.

## 2924 Accounting for Non-Financial Managers

3-0-3
A basic approach to accounting and finance so non-financial
managers can participate in the organizational financial decisionmaking process. Topics include: understanding financial data from a user's perspective, budgeting, and problem-solving strategies to improve company finances.
Prerequisites: DE 0020 with grade of B or higher or appropriate mathematics COMPASS test score.

2926 Financial Accounting 1
4-2-5
A course on accounting fundamentals. Topics include: the accounting cycle for both service and merchandising companies, inventory, cash, internal controls, and payroll.
Prerequisites: DE 0020 or appropriate COMPASS score.
2927 Financial Accounting 2
4-2-5
A continuation of ACC 2926. Topics include: accounts receivable, plant assets, current liabilities, stock transactions, corporate income reporting, bonds payable, and the statement of cash flows.
Prerequisites: ACC 2926.
2941 Managerial Accounting 2
A continuation of ACC 2921. Topics include: the use of financial information in formulating management decisions.
Prerequisites: ACC 2921.
2942 Fund Accounting for Nonprofit Organizations 3-0-3
A course on principles and practices of accounting for nonprofit organizations. Topics include: transaction analysis, appropriations, encumbrances, budgeting, and financial reporting.
Prerequisites: ACC 2913 or ACC 2927.

## 2943 Intermediate Accounting 3

3-0-3
A continuation of ACC 2920. Topics include: provision for income taxes, pensions, post-retirement benefits, leases, accounting changes, and financial statement analysis.
Prerequisites: ACC 2920.
2945 Payroll Procedures
1-0-1
An in-depth course on payroll procedures. Topics include: payroll regulations, payroll tax returns (federal and state), timekeeping, and

## ACC - Accounting <br> ART - Art

employee record keeping.
Prerequisites: ACC 2912 or ACC 2926.

## 2946 Computerized Income Tax Preparation <br> 0-2-1

A hands-on course on federal individual and sole proprietorship income tax preparation using TurboTax software. Topics include: organizing income tax information, and utilizing the tax-planning feature of the software.
Prerequisites: ACC 2917.

## 2947 Computerized Bookkeeping 1

1-2-2
A course on the practical application of processing business transactions using QuickBooks software. Topics include: system set-up, processing transactions, and generating financial reports. Students complete a practice set.
Prerequisites: ACC 2911 or ACC 2926 or ACC 2924, OT 1850.

## 2948 Computerized Bookkeeping 2

A continuation of ACC 2947. Topics include: banking, payroll, inventory, credit cards, and budgeting.
Prerequisites: ACC 2947.
2949 State and Local Taxation
2-0-2
Preparation of state and local tax returns emphasizing Ohio requirements. Topics include: franchise tax, commercial activity tax, personal property tax, city income tax, sales and use taxes, real estate tax, and other taxes related to businesses.
Prerequisites: ACC 2926.
2950 Financial Statement Analysis
2-0-2
A course on understanding and interpreting corporate financial statements. Topics include: trend analysis, common-size statements, and ratio analysis.
Prerequisites: None.

## 2974 Topics for Bookkeeping

2-0-2
A continuation of ACC 2912 for students seeking a bookkeeping degree or certificate. Topics include: the conceptual framework, reversing entries, perpetual inventory cost flow methods, estimating inventory, and exchanges of plant assets.
Prerequisites: ACC 2927.

## 9220 Cooperative Education Accounting

1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the ACC program, 2.0 minimum GPA.
9240 Cooperative Education Accounting-Parallel
Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the ACC program, 2.0 minimum GPA.

## ART Art

## 1660 Introduction to Art

3-0-3
An introduction to visual artistic expression in Western culture from ancient times to the present. Topics include: examining painting, sculpture, architecture, and other media for their style, function, and relationship to the historical and cultural developments of the period.
Prerequisites: None.

1662 Art of the Ancient World
3-0-3
A course on art history including prehistoric, early Christian, Byzantine, Near Eastern, and Islamic Art. Topics include: exploration of philosophical, cultural, and religious attitudes and their effects on artistic expression in pottery, painting, architecture, and sculpture.
Prerequisites: None.
1663 Art of the Medieval and Renaissance World 3-0-3
Art history including India, China and Japan before 1400, and European art from the Middle Ages to the Renaissance period. Topics include: exploration of philosophical, cultural, and religious attitudes and their effects on artistic expression in ceramics, paintings, architecture and sculpture. Field trip to museum required. Prerequisites: None.

## 1664 Art of the Modern World

3-0-3
Art history including India, China and Japan after 1100, and
European and American art from the colonial period through the twentieth century. Topics include: exploration of philosophical, cultural, and religious attitudes and their effects on artistic expression in ceramics, paintings, architecture and sculpture.
Field trip to museum required.
Prerequisites: None.

## 1685 Introduction to Photography

2-3-3
A course on fundamentals of photography for personal and professional expression, using hand-held 35 mm cameras. Topics include: camera techniques, exposure meters, lighting, and black-and-white print development. Students must provide their own camera, film, and some supplies.
Prerequisites: None.

## 1690 Drawing 1

2-2-3
A course on fundamental techniques of drawing in pencil and other media, emphasizing visual observation and realistic expression.
Prerequisites: None.
1691 Drawing 2
2-2-3
A course on fundamental techniques of drawing, emphasizing the human figure.
Prerequisites: ART 1690.
1692 Design 1
2-3-3
An introduction to basic elements and techniques of design including principles of two-dimensional organization.
Prerequisites: None.

## 1693 Design 2

2-3-3
A continuation of ART 1692. Topics include: advanced elements and techniques of design.
Prerequisites: ART 1692.
1694 Sculpture 1
2-3-4
A course on various sculpture media beginning with clay. Topics include: fabrication techniques and traditional methods of pinch, coil, and slab formations.
Prerequisites: None.
1695 Sculpture 2
2-3-4
A continuation of ART 1694, emphasizing refinement of conceptual and technical skills. Topics include: integrating form and function and improving design and craftsmanship.
Prerequisites: ART 1694.

## ASM Automotive Service Management

1004 Electronic Service Information Systems 1-1-1
An introductory course on electronic information systems and diagnostic tools. Topics include: using computer-based service information and specifications, locating manufacturers' electronicallytransmitted service bulletins, using hand-held diagnostic computer interface units to locate system faults, and printing information for vehicle servicing.
Prerequisites: None.
1200 Automatic Transmission In-Car Diagnostics 1-1-1 A course on identifying, troubleshooting, and repairing electronically controlled transaxle units.
Prerequisites: ASM 1601 and ASM 1804 or equivalent.
1501 Mechanical/Hydraulic Brake Fundamentals
1-1-1
An introductory course on basic braking system service. Topics include: the operation and service of the hydraulic and mechanical portions of the base brake system.
Prerequisites: None.
1503 Rear Wheel Anti-Lock Brake Systems
1-1-1
A course in the operation and service of rear wheel anti-lock brake systems. Topics include: pracitical methods of testing the control system and trouble code diagnostics.
Prerequisites: ASM 1601 or ASM 2540.

## 1504 Four Wheel Anti-Lock Brake Systems

1-1-1
An introductory course in the operation, testing, and servicing of four wheel anti-lock brake systems.
Prerequisites: ASM 1601 or ASM 2540.

## 1601 Electrical Fundamentals 1 <br> 1-1-1

A course on basic electrical circuit operation. Topics include: identification of circuit types, characteristics of circuits, and use of meters and test equipment to perform basic electrical measurements. Prerequisites: None.

1602 Electrical Fundamentals 2
1-1-1
A continuation of ASM 1601. Topics include: use of wiring schematics and electrical test equipment to diagnose automotive electrical systems.
Prerequisites: ASM 1601.

## 1603 Electrical Fundamentals 3

1-1-1
An advanced level automotive electrical class. Topics include: testing and servicing solid state and microprocessor-controled automotive systems.
Prerequisites: ASM 1601, ASM 1602.

## 1604 Starting and Charging Systems Diagnosis

1-1-1
A course on operational theory and testing of the automotive battery, starter, and charging system components. Students use varied types of test equipment to locate and correct problems in these systems. Prerequisites: ASM 2540 or equivalent.

1605 GM Body Control Computers
1-1-1
A course on technical information and diagnostic procedures for GM body control module systems.
Prerequisites: ASM 1601 or equivalent.

1606 Automotive Lab Scopes
1-1-1
A course on basic oscilloscope use, technical information, and diagnostic procedures. Topics include: setting up, operating, and using the oscilloscope in automotive diagnostics.
Prerequisites: ASM 1601 or equivalent.

1610 GM Supplemental Restraints
1-1-1
A course on air bag systems used on GM vehicles. Systems include DERM, SDM, SISM, and seat belt pretensioners. Topics include: hands-on troubleshooting for faults, reading and clearing DTCs, and proper component handling procedures.
Prerequisites: ASM 1601 or ASM 2540.
1611 ABS Electronic Brake Diagnosis 1
1-1-1
An introduction to diagnosing electronic antilock brake system components. Topics include: using scan tools to access ABS trouble codes, using the DVOM to locate and troubleshoot electrical failures in the ABS systems, and servicing and replacing field-serviceable parts of $A B S$ systems.
Prerequisites: None.

## 1620 Bosch V Anti-Lock Brake Systems

1-1-1
A course on the operation and service of the Bosch $V$ anti-lock brake system. Topics include: electronic and hydraulic system testing and service.
Prerequisites: ASM 1601 or ASM 2540.

## 1621 Teves II Anti-Lock Brake Systems

A course in the operation and service of the Teves II anti-lock brake system. Topics include: electronic and hydraulic systems testing and service.
Prerequisites: ASM 1601 or ASM 2540.
1622 Teves IV Anti-Lock Brake System
A cours in the operation and service of the Teves IV anti-lock brake system. Topics include electronic and hydraulic system
testing and service.
Prerequisites: ASM 1601 or ASM 2540.
1701 Automotive Air Conditioning 1 1-1-1
An introduction to diagnosing electronic anti-lock brake system components. Topics include: using scan tools to access ABS trouble codes, using the DVOM to locate and troubleshoot electrical failures in the ABS systems, and servicing and replacing fieldserviceable parts of $A B S$ systems.
Prerequisites: None.
1703 Electronic Air Conditioning Controls
1-1-1
A course on the operation and service of automatic temperature control systems. Topics include: use of electronic diagnostic equipment and technical service bulletins.
Prerequisites: ASM 1601 or ASM 2540.
1802 Computer Command Carburetors
1-1-1
A course on the diagnosis of carburetor-caused drivability conditions. Topics include: the adjustments of E2M, E4M, and E2S carburetors. Prerequisites: ASM 1804 or equivalent.

1804 Electronic Engine Controls 1
1-1-1
An introduction to the theory and operation of computer-controlled automotive engine fuel and ignition systems. Topics include: basic automotive computer functions, closed loop fuel control systems, computer self tests and systems tests, and location and function of engine fuel and ignition components.
Prerequisites: ASM 2530 or equivalent.
1805 Electronic Engine Controls 2
1-1-1
A course on operating and testing various sensors that operate engine fuel and ignition systems. Topics include: sensor types and functions and testing, servicing, and replacing sensors.
Prerequisites: ASM 2530 or equivalent.

## 1806 Electronic Engine Controls 3

1-1-1
A course on operating and testing various outputs in engine fuel and ignition systems. Topics include: descriptions of computer outputs; testing and servicing relays, actuators, coils, and solenoids; fuel injector testing and service; and testing and operating stepper motors.
Prerequisites: ASM 2530 or equivalent.

## 1807 Engine Performance Testing 1 1-1-1 <br> An advanced course on diagnosing and repairing electronic ignition systems. Topics include: using DVOMs, scan tools, and oscilloscopes to locate and repair ignition system problems and troubleshooting problems including poor performance, poor gas mileage, and hard start/no start conditions. <br> Prerequisites: ASM 2531 or equivalent.

1808 Engine Performance Testing 2
A continuation of ASM 1807. Covers diagnosing and repairing computer-controlled fuel injection systems. Topics include: using advanced diagnostic equipment such as scan tools and oscilloscopes to locate and repair performance and drivability problems related to electronic fuel control systems.
Prerequisites: ASM 2531 or equivalent.
1809 Engine Performance Testing 3
1-1-1
A continuation of ASM 1808. Covers testing and repairing exhaust emissions problems. Topics include: using scan tools and exhaust gas analyzers to locate and repair mechanical or electronic problems that cause high vehicle exhaust emissions and On Board Diagnosis II service.
Prerequisites: ASM 2531 or equivalent.

## 1810 OBD II Diagnosis

1-1-1
A course on using scan tools and lab scopes to diagnose problems in OBD II compliant engine control systems.
Prerequisites: ASM 1804 or equivalent.

## 1811 Computer Command Carburetors

1-1-1
A diagnostic course on carburetor-caused drivability conditions. Students perform basic adjustments of E2M, E4M, and E2S carburetors.
Prerequisites: ASM 1804.

## 1812 Drivability and Emissions Diagnosis 1-1-1

A course on using scan tools and digital multimeters in diagnosis of emission related problems. Topics include: diagnosis of catalytic converters, and secondary air injection systems.
Prerequisites: None.
1820 Ford EEC-V Electronic Engine Control Systems 1-1-1
A course on the function and service of the Ford EEC-V engine control system. Topics include: the testing and service of the various engine control systems.
Prerequisites: ASM 1806 or equivalent.

## 1822 Ford OBD II Electronic Engine Control System

1-1-1
A course on the operation and comprehensive servicing of vehicles equipped with the Ford OBD II compliant EEC-V engine control system.
Prerequisites: None.

## 1830 Daimler Chrysler Electronic Engine Control Systems

1-1-1
A course on operating and repairing Chrysler electronic engine control systems. Course includes hands-on diagnostic experience. Prerequisites: ASM 1810 and ASM 1806 or equivalent.

## 1832 Daimler Chrysler OBD II Electronic

 Engine Control Systems1-1-1
A course on operating and servicing Chrysler vehicles equipped with OBD-II compliant control systems. Course includes hands-on diagnostic experience.
Prerequisites: ASM 1830 or equivalent.

## 1842 Honda OBD II Electronic Engine Control Systems 1-1-1

A course on the operation and servicing of Honda vehicles
equipped with OBD-II compliant control systems. Topics include: hands-on experience diagnosing these systems.
Prerequisites: ASM 1806 and ASM 1810 or equivalent.
1890 SPS Service Programming
1-1-1
A course on the equipment and procedures used in reprogramming vehicle controllers. Students gain hands-on experience in programming the latest GM vehicles.
Prerequisites: ASM 1004.

## 1900 ASE Test Preparation

1-0-1
A course for technicians preparing to take one or more of the ASE Automotive Certification exams. Topics include: job-related tasks for preparation, test-taking techniques, and various types of ASE test questions.
Prerequisites: None.

## 2520 Introduction to Automotive Technology

2-3-3
An orientation course that familiarizes students with safe and proper procedures while using various shop chemicals, tools, fasteners, and equipment. Topics include: ASE certification and customer concerns.
Prerequisites: None.
2521 Automotive Service Desk Operations 2-2-3 A course on the duties and responsibilities of an automotive service advisor. Topics include: customer interactions, working with technicians and other dealer departments, preparing labor and parts estimates, completing automotive repair orders, and using shop and administrative software packages.
Prerequisites: ENG 1010 or instructor consent.
2522 Fundamentals of Automotive Service Management 2-2-3 A course on automotive service manager duties and responsibilities. Topics include: applying management techniques to the automotive service environment, directing automotive service facility operations, determining overhead and equipment costs, and determining workforce needs and training.
Prerequisites: MGT 2967 or MGT 2965, MKT 2901, ASM 2521.

## 2525 Engine Fundamentals 1

2-3-3
A general course on conventional engine repairs. Topics include: various components and parts such as timing belts, camshafts, lifters, head gaskets, oil pumps, manifold valves, flywheels, and gasket materials.
Prerequisites: None.

## 2526 Engine Fundamentals 2

2-3-3
A continuation of ASM 2525. Topics include: total engine replacement versus engine replacement with short or long blocks as an alternative to engine overhaul. Students complete cooling system service during engine removal and replacement.
Prerequisites: ASM 2525.
2527 Engine Rebuild
2-3-3
A continuation of ASM 2526. Topics include: internal combustion engine cylinder block and head rebuilding procedures, hands-on
engine disassembly, failure diagnosis, cleaning, measuring, machining, and assembly.
Prerequisites: ASM 2526.

## 2528 Outdoor Power Equipment Service and Repair 2-2-3

A course on maintaining, servicing, and repairing gasoline and diesel powered machinery including lawn, turf, and gardening type power equipment. Topics include: scheduled maintenance, and troubleshooting and repairing equipment. Students gain hands-on experience in inspecting, tearing down, and repairing various types of equipment.
Prerequisites: LH 3510 or ASM 2525 or instructor consent.

## 2530 Engine Performance 1

A course on engine mechanical testing procedures. Topics include: cylinder power balance, compression, and cylinder leakage testing and the theory, diagnosis, and repair of distributor-type ignition systems.
Prerequisites: ASM 2525, ASM 2540.
2531 Engine Performance 2
A continuation of ASM 2530. Topics include: the onset, theory, diagnosis, and repair of computer-controlled fuel, ignition and emission systems and hands-on trouble tree diagnosis and repair of these systems using computer-enhanced fault detection codes, stationary diagnostic equipment, and hand-held scanners.
Prerequisites: ASM 2530.

## 2532 Engine Performance 3

2-3-3
A continuation of ASM 2531. Topics include: fuel injection and emission control system failures and diagnosis, a systematic approach to diagnosing intermittent drivability complaints, distributorless ignition problems, and computer-controlled electronic failures. Prerequisites: ASM 2531.

2533 Alternative Fuels and Hybrid Vehicle Technology 2-3-3 An introduction to current developments in vehicle fuels and power trains. Topics include: changes in engine control systems to function with new fuels, developments in more efficient power trains, and hybrid engine systems.
Prerequisites: ASM 2531.

## 2534 Basic Driveline Service and Repair

An introductory course in automatic and manual transmission service. Topics include: transmission removal and replacement, axle and drive shaft replacement, clutch service, and axle bearing replacement.
Prerequisites: ASM 2520.

## 2535 Automatic Transmission 1

2-3-3
An introduction to basic automatic transmission testing and service procedures. Topics include: diagnosing unusual fluid usage, performing visual inspection, pressure testing, servicing filters, replacing external seals and bushings, checking condition and alignment of mounts, and removing and installing transmissions and transaxles.
Prerequisites: None.

## 2536 Automatic Transmission 2

2-3-3
A continuation of ASM 2535. Topics include: theory, operation, service, and overhaul of automatic transmissions and transaxles and diagnosis and overhaul of various manufacturers' products. Prerequisites: ASM 2535.

2540 Automotive Electrical Diagnosis 1
2-3-3
An introduction to systematic diagnosis and repair of basic electrical circuits. Topics include: step-by-step testing procedures using
equipment such as a test light, self powered test light and digital multimeter.
Prerequisites: None.
2541 Automotive Electrical Diagnosis 2
2-3-3
A continuation of ASM 2540. Topics include: the theory, diagnosis and repair of starting and charging systems. Students gain hands-on experience in wiring schematic interpretation associated with testing electric cooling fan circuits, warning light systems, and various electronic gauge systems.
Prerequisites: ASM 2540.
2542 Automotive Electrical Diagnosis 3
A course on advanced theory, diagnosis, and service of automotive electrical systems. Topics include: printed circuits, driver information systems, cruise control systems, windshield wiper systems, heated glass, and electronic door lock mechanisms.
Prerequisites: ASM 2540.
2545 Advanced Electrical/Hydraulics/Safety
2-3-3
A course on advanced diagnosis and service of anti-lock braking systems, digital instrumentation circuits, motor driven accessory circuits, and supplemental restraint (air bag) systems.
Prerequisites: ASM 2540.
Corequisites: ASM 2555.
2550 Manual Transmission and Drive Line 1
2-3-3
A course on theory, diagnosis, and repair of manual transmissions and drive line components. Topics include: clutches, pressure plates, constant velocity joints, universal joints, drive shafts, seals, and gaskets.
Prerequisites: None.
2551 Manual Transmission and Drive Line 2 2-3-3 A course on the theory, diagnosis, and internal repair of manual transmissions and transaxles. Topics include: abnormal noise, hard shifting, jumping out of gear, gear ratios, overdrive components, and sealing methods.
Prerequisites: ASM 2550.
2555 Braking Systems
2-3-3
A course on operation, inspection, diagnosis, and repair of conventional braking systems. Topics include: live vehicle performance testing on the Hunter Brake Tester, disc and drum service, lathe machining operations, measuring procedures, power assisted units, combination valves, and basic anti-lock service.
Prerequisites: None.
2560 Suspension and Steering
2-3-3
A course on theory, operation, and service of rack and pinion units. Topics include: steering gear boxes, short-long arm suspension components, MacPherson strut units, independent rear suspension parts and other suspension and steering components, riding height measurements, caster, camber, toe, thrust line, set back, and fourwheel alignment procedures.
Prerequisites: None.

## 2561 Alignment and Advanced Chassis Systems

## 2-3-3

An advanced course in alignment and suspension service. Topics include: four-wheel and two-wheel alignment, diagnosis of vibration and suspension problems, NVH troubleshooting (noise, vibration, and harshness), and electronically-controlled steering and suspension controls.
Prerequisites: ASM 2560.

## ASM - Automotive Service Management AVT - Aviation Maintenance Technology

## 2565 Advanced Automotive Systems

2-3-3
A course on advanced theory, diagnosis and repair of automotive systems. Topics include: automatic heating and air conditioning systems, active suspension systems, electronic variable steering systems, and alternative fueled vehicles.
Prerequisites: ASM 2560.
Corequisites: ASM 2570.

## 2570 Air Conditioning \& Heating

2-3-3
A course on theory, operation, diagnosis, and ozone-safe service of basic air conditioning and heating systems. Topics include: handson performance testing, pressure and leak testing, inspecting seals and valves, recycling refrigerant and diagnosing electrical and mechanical controls, compressors, clutches, pressure cut-off switches, and safety devices.
Prerequisites: None.

## 2599 Special Studies -

## Automotive Service Management <br> Var-Var-Var

Special studies occur on an individual basis to provide
students with the opportunity to work on special technical topics in the Automotive Service field. This course may be substituted for technical elective credits.
Prerequisites: Instructor consent.

## 9221 Cooperative Education -

Automotive Service Management
1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the ASM program, 2.0 minimum GPA.
9241 Cooperative Education Automotive-Parallel 1-20-1 Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the ASM program, 2.0 minimum GPA.

## AVT Aviation Maintenance Technology

## 8100 Aircraft Orientation

4-4-5
Topics include: weighing aircraft, performing complete weight-andbalance check, and recording data; starting, grounding, operating, moving, servicing, and securing aircraft; identifying typical ground operation hazards; and identifying and selecting fuels.
Prerequisites: None.

## 8101 Materials \& Processes 1

Topics include: identifying and selecting proper hand tools for particular applications; hand forming, laying out, and bending sheet metal; and performing precision measurements.
Prerequisites: None.

## 8102 Aerodynamics \& FAA Regulations

Students must demonstrate ability to read, comprehend, and apply information contained in FAA and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications, and related Federal Aviation Regulation, Airworthiness Directives, and Advisory Material.
Prerequisites: None.
8106 Aircraft Drawings
2-2-2
Topics include: using aircraft drawings, symbols, and system
schematics; drawing sketches of repairs and alterations; and using blueprint information, graphs, and charts.
Prerequisites: None.

## 8107 Materials \& Processes 2

4-6-6
Topics include: fabricating and installing rigid and flexible fluid lines and fittings; identifying and selecting appropriate nondestructive testing methods; performing dye penetrant, eddy current, ultrasonic, and magnetic particle inspections; performing basic heat-testing processes; identifying and selecting aircraft hardware and materials; and inspecting and checking welds.
Prerequisites: None.

## 8108 Aircraft Electricity

3-2-3
Topics include: calculating and measuring capacitance and inductance; calculating and measuring electrical power; measuring voltage, current, resistance, and continuity; determining the relationship of voltage, current, and resistance in electrical circuits; reading and interpreting aircraft electrical circuit diagrams including solid state devices and logic functions; and inspecting and servicing batteries. Material covered in PHY 2221 is helpful in completing this course.
Prerequisites: None.
8109 Cleaning \& Corrosion Control
2-3-3
Topics include: identifying and selecting cleaning materials; inspecting, identifying, removing, and treating aircraft corrosion; and performing aircraft cleaning.
Prerequisites: None.

## 8130 Airframe Structures 1

3-7-5
Topics include: servicing and repairing wood structures; identifying wood defects; inspecting wood structures; selecting and applying fabric and fiberglass covering materials; inspecting, testing, and repairing fabric and fiberglass; applying trim, letters, and touch-up paint; identifying and selecting aircraft finishing materials; applying finishing materials; inspecting finishes and identifying defects; inspecting bonded structures; and inspecting, testing, and repairing fiberglass, plastics, honeycomb, composite, and laminated primary and secondary structures.
Prerequisites: AVT 8107.
8131 Welding Processes
1-4-2
Topics include: welding magnesium and titanium; soldering stainless steel; fabricating tubular structures; soldering, brazing, gas-welding, and arc-welding steel; and welding aluminum and stainless steel.
Prerequisites: AVT 8107.
8132 Aircraft Electrical \& Generating Systems
4-6-6
Topics include: repairing and inspecting aircraft electrical system components; crimping and splicing wiring to manufacturer specifications; repairing pins and sockets of aircraft connectors; inspecting, troubleshooting, servicing, and repairing alternating and direct current electrical systems; inspecting, checking, and troubleshooting constant speed and integrated speed drive generators; installing, checking, and servicing airframe electrical wiring, controls, switches, indicators, and protective devices; and inspecting, checking, troubleshooting, and servicing landing gear position indicating and warning systems.
Prerequisites: AVT 8108 or PHY 2221.
8140 Airframe Structures 2
3-7-5
Topics include: selecting, installing, and removing special fasteners for metallic, bonded, and composite structures; inspecting, checking, servicing, and repairing windows, doors, and interior
furnishings; inspecting and repairing sheet metal structures; and installing conventional rivets.
Prerequisites: AVT 8107.

## 8142 Assembly \& Rigging

Topics include: rigging rotary- and fixed-wing aircraft; checking alignment of structures; assembling aircraft components including flight control surfaces; balancing, rigging, and inspecting movable primary and secondary flight control surfaces; and jacking aircraft. Prerequisites: AVT 8107.

## 8143 Airframe Hydraulic \& Pneumatic Systems

Topics include: repairing hydraulic and pneumatic power systems components; identifying and selecting hydraulic fluids; and inspecting, checking, servicing, troubleshooting, and repairing hydraulic and pneumatic power systems.
Prerequisites: AVT 8107.
8150 Airframe Electronic and Instrument Systems 4-6-6 Topics include: inspecting, checking, servicing, troubleshooting, and repairing electronic flight instrument systems and mechanical and electrical heading-, speed-, altitude-, temperature-, pressure-, and position-indicating systems including the use of built-in test equipment; installing instruments and performing a static pressure system leak test; and inspecting, checking, and servicing navigation systems, including VHF passenger aircraft VOR, ILS, LORAN. Prerequisites: AVT 8132.

## 8151 Landing Gear Systems

3-7-5
Topics include: inspecting, checking, servicing, and repairing landing gear, retraction systems, shocks, struts, brakes, wheels, tires, and steering systems; and inspecting, checking, troubleshooting, and servicing landing gear position indicating and warning systems.
Prerequisites: AVT 8143.

## 8152 Airframe Inspection

Topics include: performing airframe and powerplant conformity and airworthiness inspection.
Prerequisites: None.

## 8154 Airframe Systems

Topics include: inspecting, checking, troubleshooting, and repairing the following systems and components: heating, cooling, air conditioning, pressurization, air cycle machines, oxygen, fuel dump, fuel system components, fluid quantity indicating pressure fueling systems, fluid pressure and temperature warning, airframe ice and rain control, fire detection and extinguishing, smoke and carbon monoxide detection systems; and performing fuel system management transfer and refueling.
Prerequisites: AVT 8100, AVT 8107, AVT 8108.

## 8155 Airframe Comprehensive

A comprehensive study and review of all required material preparing students for the comprehensive examination. Students must demonstrate the proficiency required to be awarded the degree and be named a candidate for the Federal Aviation Agency written test.
Prerequisites: All general and airframe courses.
8160 Powerplant Theory \& Maintenance 1
An introduction to the design, manufacture, and overhaul of aircraft reciprocating engines. Topics include: overhaul and inspection of an opposed reciprocating engine.
Prerequisites: MAT 1191, PHY 2222, AVT 8102.

8161 Powerplant Lubrication
3-2-4
Topics include: identifying and selecting proper lubricants; inspecting, checking, servicing, troubleshooting, and repairing reciprocating and turbine engine lubrication systems; identifying and selecting propeller lubricants.
Prerequisites: PHY 2221, AVT 8102, AVT 8106.
Corequisites: AVT 8160.
8162 Propellers 4-4-4
Topics include: inspecting, checking, servicing, and repairing propeller synchronizing and ice control systems and balance propellers; repairing propeller control system components; inspecting, checking, servicing, and repairing fixed pitch constant speed and feathering propellers and propeller governing systems; and installing and repairing propellers.
Prerequisites: MAT 1191, PHY 2221, AVT 8109.
Corequisites: AVT 8161.
8170 Powerplant Theory \& Maintenance 2
5-5-7
Topics include: inspecting and repairing a radial engine; installing, troubleshooting, and removing reciprocating and turbine engines; installing and troubleshooting auxiliary powerplants; and performing powerplant conformity and airworthiness inspections.
Prerequisites: AVT 8160.
8171 Powerplant Fuel Metering Systems 1
5-5-5
Topics include: inspecting, checking, and servicing water injection systems; overhauling a carburetor; repairing fuel metering components; inspecting, checking, servicing, troubleshooting, and repairing reciprocating carburetor systems, induction manifolds, and reciprocating fuel injection systems; and troubleshooting and inspecting turbine fuel metering systems.
Prerequisites: AVT 8100, AVT 8107.
8172 Ignition Systems
4-6-6
Topics include: overhauling magneto and ignition harnesses;
repairing engine ignition system components; inspecting, checking, servicing, troubleshooting, and repairing powerplant ignition systems and turbine ignition and starting systems.
Prerequisites: AVT 8108.
8180 Engine Systems \& Inspection
5-5-5
Topics include: inspecting, checking, troubleshooting, servicing, and repairing engine induction, cooling, exhaust, and electrical systems and components.
Prerequisites: AVT 8101, AVT 8108.

## 8181 Engine Inspection

4-4-5
Topics include: inspecting, checking, servicing, and repairing reciprocating and turbine engines and engine installations.
Prerequisites: None.
8182 Engine Instruments \& Fire Protection
2-3-3
Topics include: inspecting, checking, servicing, troubleshooting, and repairing engine temperature, pressure, and RPM indicating systems; inspecting and repairing fire detection systems; and repairing engine electrical systems.
Prerequisites: AVT 8108.
8183 Powerplant Theory \& Maintenance 3
Topics include: overhauling turbine engines.
Prerequisites: PHY 2222, AVT 8170.

## 8185 Powerplant Comprehensive

2-1-2
A comprehensive study and review of all required material preparing students for the comprehensive examination. Students must demonstrate the proficiency required to be awarded the

## AVT - Aviation Maintenance Technology BIO - Biology

degree and be named a candidate for the Federal Aviation Agency written test.
Prerequisites: All general and powerplant courses.

## 8190 Aviation Make-Up

Var-Var-Var
An opportunity for students to make up FAA required time.
Laboratory, written, or reading requirements or extra time on lab projects may be performed during this time.
Prerequisites: None.

## 8191 General Comprehensive

4-0-4
A course that improves student performance on the FAA general written, oral, and practical tests. Topics include: FARs, physics, electricity, and weight and balance.
Prerequisites: Program chair consent.

## 8199 Aviation Project

Var-Var-Var
A variable combination of aviation lab projects and theory subjects offered to address particular needs of aviation students in atypical situations.
Prerequisites: Program chair consent.
8200 Avionics Orientation
3-2-4
An introduction to the repair of avionics equipment. Topics
include: avionics repair procedures for air carriers and repair stations, publications, tools, and the build-up and marking of wire bundles.
Prerequisites: None.

## 8201 Avionics 1

3-2-4
Topics include: digital electronics with a direct application to aircraft systems including servos, a review of Boolean algebra, logic gates, ARNIC Codes, and troubleshooting aircraft digital systems. Prerequisites: AVT 8154.

## 8202 Avionics 2

3-2-4
Topics include: amplifier theory, analog communications theories as they apply to aircraft navigation, communication, intercom, public address, and passenger entertainment systems.
Prerequisites: AVT 8150, AVT 8201.
8300 Preventive Maintenance 2-2-3
Pilots learn to identify, perform, and record maintenance and approve the return to service of their own aircraft. Topics include: changing engine oil; adjusting timing of ignition systems; cleaning, adjusting and installing spark plugs; and other basic aircraft
maintenance tasks.
Prerequisites: None.

## 8306 Turbojet Engine Orientation

2-2-3
A technical elective for the pilot, avionics, and airframe certificate programs. Topics include: basic concepts of turbine engine theory, construction, and disassembly.
Prerequisites: None.

## 8310 Private Pilot Theory

3-0-3
Prepares students for the FAA Private Pilot Written Test. Topics
include: Federal Aviation Regulations for pilots, navigation, weight and balance calculations, meteorology, basic aerodynamics, flight controls, and aircraft systems.
Prerequisites: None.

## 8311 Private Pilot Flight Lab

2-4-4
Prepares students for the Private Pilot Flight Test. Examples of flight maneuvers include: takeoffs, landings, climbs, turns, descents, slow flight stalls, traffic patterns, emergency procedures, and cross country navigation.
Prerequisites: None.
Corequisites: AVT 8310.

8320 Instrument Pilot Theory
3-0-3
Ground instruction for the FAA Instrument Pilot Written Test. Topics include: instruments and systems, IFR flight planning, radio aids to navigation, en route operations charts, approach and airport charts, meteorology, and instrument pilot privileges and limitations. Prerequisites: AVT 8310, AVT 8311.

## 8321 Instrument Pilot Flight Lab

2-4-4
Prepares students for the Instrument Pilot Test. Examples of flight maneuvers include: ILS, VOR, and ADF approaches, en route procedures, holding patterns, and communication procedures. Prerequisites: AVT 8310, AVT 8311.
Corequisites: AVT 8320.

## 8330 Commercial Pilot Theory

3-0-3
Prepares students for the FAA Commercial Pilot Written Test. Topics include: commercial pilot privileges and limitations, advanced flight maneuvers, meteorology, and complex airplane performance. Prerequisites: AVT 8310, AVT 8311.

## 8331 Commercial Pilot Flight Lab

2-4-4
Prepares students for the Commercial Pilot Flight Test. Examples of flight maneuvers include: operation of complex airplanes and advanced flight maneuvers.
Prerequisites: AVT 8310, AVT 8311.
Corequisites: AVT 8330.

## BIO Biology

4009 General Microbiology
An introduction to principles of immunology and control of
microorganisms. Topics include: microbial cell structure, metabolism, growth requirements, and ecology.
Prerequisites: BIO 4014, minimum grade C.
4014 Anatomy and Physiology 1
A course on structure and function of the human body. Topics include: anatomical terminology, physiological transport, cells, tissue, skin, and the skeletal and muscular systems. Laboratory includes dissection. High school biology and chemistry with a grade of $C$ or higher within seven years can substitute for prerequisites. Prerequisites: BIO 4073, CHE 2200, or CHE 2202 and CHE 2203. Minimum grade C for all, or high school biology and/or chemistry (C or higher) within seven years.

## 4015 Anatomy and Physiology 2

3-2-4
A continuation of BIO 4014. Topics include: nervous system,
special senses, endocrine system, blood, and the cardiovascular system. Laboratory includes dissection.
Prerequisites: BIO 4014, (minimum grade C).
4016 Anatomy and Physiology 3
3-2-4
A continuation of BIO 4015. Topics include: respiratory system, gastrointestinal system, metabolism, renal system, fluids and electrolytes, acid-base balance, reproduction, and immune system. Laboratory includes dissection.
Prerequisites: BIO 4015, (minimum grade C).

## 4018 Pharmacology

3-0-3
An introduction to clinical drug therapy, categories, and adverse reactions. Topics include: drug therapy; pharmacokinetics; pharmacodynamics; pharmacotherapeutics; adverse drug reactions and drug interactions; and principles, terminology, modes of administration, and mechanism of action of the major drug groups. Prerequisites: BIO 4016, (minimum grade C).

# BIO - Biology BMT - Biomedical Engineering Technology 

## 4019 Cross Sectional Anatomy

2-2-3
An introduction to the sectional anatomy of major human structures. Topics include: anatomy of the head, neck, thorax, and abdominal-pelvic regions; and organ relationships in the axial, coronal, and sagittal planes.
Prerequisites: BIO 4016, (minimum grade C).
4020 Fundamentals of Pathophysiology
An introduction to basic disease processes. Topics include: necrosis, inflammation, repair, developmental abnormalities, neoplasia, immune disorders, infectious disease, and the pathogenesis of representative diseases in each category. Prerequisites: BIO 4016, (minimum grade C) or equivalent.

4021 Fundamentals of Pharmacology 1
An examination of clinical drug therapy, categories, and adverse reactions. Topics include: terminology, immunizing agents, narcotics/non-narcotics, NSAIDs, antianxiety, sedatives/hypnotics, antineoplastics, corticosteroids, respiratory, cardiovascular, gastrointestinal, anticoagulants, thrombolytics, and antilipemic agents. Prerequisites: BIO 4016, (minimum grade C).

## 4022 Fundamentals of Pharmacology 2

A continuation of BIO 4021. Topics include: antiinfectives and antimicrobial, endocrine, ophthalmic, antiparkinson, anticonvulsant, antidepressant, antipsychotic agents and autonomic nervous system drugs. Completion of BIO 4021 and BIO 4022 is equivalent to BIO 4018.
Prerequisites: BIO 4021, (minimum grade C).

## 4071 Concepts of Biology 1

An introduction to basic biology principles from the molecular to the cellular level. Laboratory sessions reinforce lecture topics. For non-biology majors fulfilling a science requirement or for those who need to meet anatomy and physiology prerequisites.
Prerequisites: DE 0024, DE 0011, DE 0005 or appropriate
COMPASS scores.

## 4072 Concepts of Biology 2

3-2-4
A continuation of BIO 4071. Topics include: the molecular biology of the gene, plant form and function, the animal kingdom, evolution, and ecology. Laboratory experiences include field trips to Krohn Conservatory and the Cincinnati Zoo.
Prerequisites: BIO 4071, (minimum grade C).
4073 Concepts of Biology 3
Topics include: the anatomy and physiology of animals, emphasizing human organ systems. Includes laboratory dissection of the fetal pig.
Prerequisites: BIO 4071, (minimum grade C), or advisor consent; and acceptable college level reading scores on COMPASS test. Contact anne.loochtan@cincinnatistate.edu for questions.

## 4074 Human Disease

An overview of disease in the human body. Topics include: principles of disease and diseases of the various organ systems. Prerequisites: BIO 4073, (minimum grade C), or instructor consent.

## 4075 Foundations of Exercise Science

3-2-4
An introduction to the human body's response and adaptation to exercise and physical training. Laboratory experiences include testing and measurement related to exercise and fitness.
Prerequisites: BIO 4073, (minimum grade C).
4081 Biology 1
3-4-5
An introduction to basic biological principles. Topics include:
the chemistry of life, cell structure, metabolism, and the molecular basis of reproduction and inheritance. Laboratory sessions emphasize experimental design and critical thinking. For Associate of Science or pre-professional students wishing to transfer as biology majors.
Prerequisites: BIO 4071 or high school biology (C or higher) within seven years; DE 0011 or appropriate COMPASS score.

4082 Biology 2
3-4-5
A continuation of BIO 4081. Topics include: major animal phyla and their taxonomic and evolutionary relationships and animal organ systems emphasizing comparative strategies. Laboratory sessions include animal dissections. For Associate of Science or pre-professional students wishing to transfer as biology majors. Prerequisites: BIO 4081.

4083 Biology 3
3-4-5
A continuation of BIO 4082. Topics include: the major plant divisions within the evolutionary context of adaptation to terrestrial environments, classical genetics, and ecology. Laboratory sessions reinforce lecture topics. For Associate of Science or pre-professional students wishing to transfer as biology majors.
Prerequisites: BIO 4082.
4092 Cell Biology
3-4-5
An in-depth study of the workings of the cell. Topics include: cell structure and organelles, protein structure and function, membranes, cellular respiration, intracellular transport, cell to cell communication, and the cell cycle.
Prerequisites: BIO 4083, CHEM 2253 (minimum grade C).

## 4093 Genetics

This course explores the mechanisms of heredity and genetics. Topics include: DNA and chromosome structure; transcription and gene regulation; replication and cell division; patterns of inheritance; genetic recombination; mutations and their repair; and the genetics of cancer, development, and evolution. Prerequisites: BIO 4083, CHE 2253 (minimum grade C).

4095 Environmental Science
3-4-5
A course on the interrelationships between organisms and their natural environments. Topics include: individual, population, and community interactions. Laboratory sessions introduce techniques for the analysis of aquatic and terrestrial ecosystems.
Prerequisites: BIO 4083 (minimum grade C) or instructor consent.
4097 Biotechnology Capstone Project 1-3-2
A review of theory and practice of biotechnology in preparation for a career or transfer to a four-year college. Student complete a project selected in concert with the instructor.
Prerequisites: BIO 4093, CHE 2282, CHE 2285 (minimum grade C).

4099 Special Topics in Biology Var-Var-Var
An academic pursuit pertaining to biology and mutually agreed upon by the student and faculty member. Students receive grades of $S$ or $U$ for this course.
Prerequisites: None.

## BMT Biomedical Engineering Technology

7739 Introduction to Biomedical Information Systems and Technology

2-3-3
A survey of Biomedical Engineering Technology and the role of the BMET in the hospital. Topics include: organization of the hospital, regulations, professional certifications, registrations, ethics, and

# BMT - Biomedical Engineering Technology <br> BT - Business <br> BUS - Business 

professionalism. Students must have a basic knowledge of Microsoft Word, Excel, and PowerPoint prior to entering this class. Prerequisites: MAT 1161 or appropriate COMPASS score.

## 7749 Biomedical Instrumentation 1 3-5-5

A survey of the field of Biomedical Engineering Technology and the role of the BMET in the hospital. Topics include: organization of the hospital, regulations, professional certifications, registrations, ethics, and professionalism. Students use computers as biomedical department tools.
Prerequisites: BIO 4073, EET 7730, CPET 7738, BMT 7739.

## 7759 Biomedical Instrumentation 2

A continuation of BMT 7749, covering more complex, specialized medical devices. Topics include: advanced equipment malfunction isolation and test instrumentations; maintenance management such as records, stock level optimization, shop layout, forms, and technician duties; and biomedical equipment servicing ethics.
Prerequisites: BMT 7749.

## BT Business

9200 Professional Practice
1-0-1
A course that prepares students for the cooperative education interview process, heightens student awareness of work ethics, and provides skills that ensure professional success.
Prerequisites: None.

## BUS Business

1999 Special Problems Seminar
Var-Var-Var
Individual study and special projects pertaining to the particular technology that the student is enrolled in. Open to fourth and fifth term students by special arrangement with the Coordinator and Dean of Business Technologies.
Prerequisites: None.

## 2925 Business Principles

3-0-3
A course on the nature of business. Topics include: forms of business ownership, entrepreneurship, principles in finance, global business, management, marketing, ethics, and union-management relations.
Prerequisites: None.

## 2973 Business Ethics

3-0-3
An introduction to business ethics. Topics include: truth-inadvertising, whistleblowing, environmental protection, corporate disclosure, discrimination, finance and banking, computer crime, and workers' rights.
Prerequisites: None.

3094 Workshops in Business
Var-Var-Var
Consideration and study of selected issues and topics in the business technologies area designed to meet current needs.
Content and emphasis vary from year to year.
Prerequisites: None.

## 9222 Cooperative Education Business Management/

 Marketing Management1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to a business program, 2.0 minimum GPA.
9230 Cooperative Education Seminar 1
3-0-3
An alternative to participating in the cooperative education
program. This course gives students an opportunity to enhance their employment options in their chosen field. Students must attain a grade of C or higher to pass this course. Prerequisites: Co-op coordinator consent.

9231 Cooperative Education Seminar 2
3-0-3
An alternative to participating in the cooperative education program. This course gives students an opportunity to enhance their employment options in their chosen field. Students must attain a grade of C or higher to pass this course.
Prerequisites: Co-op coordinator consent.
9232 Cooperative Education Seminar 3
4-0-4
An alternative to participating in the cooperative education program. This course gives students an opportunity to enhance their employment options in their chosen field. Students must attain a grade of C or higher to pass this course.
Prerequisites: Co-op coordinator consent.

## 9233 Business Competencies

A capstone course that helps students develop business competencies and skill sets. Topics include: graduate job search, negotiations, customer service, professional ethics, public service, and cultural diversity. Students complete community service and a portfolio project. Students must earn a grade of C or higher to pass the course.
Prerequisites: BT 9200, all co-op credit hours required by program and/or co-op seminars or co-op coordinator consent.

## 9242 Cooperative Education Business/

Mkt. Mgt.-Parallel
1-20-1
Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

## CAR Career Development

9014 College Study Skills
4-0-4
A comprehensive course for students who would like to get the most out of their studies. Topics include: developing positive attitudes toward good study habits and improving basic study skills such as note-taking, memory, preparing for examinations.
Prerequisites: None.

9015 Math Anxiety Study Skills
1-1-1
Math anxiety strategies for a nontraditional math program. Topics include: incorporating facets of self-awareness, self-improvement, and appropriate math study skills.
Prerequisites: None.

## CET Civil Engineering Technology

## 7024 Architectural Drafting 3-4-4

An introduction to architectural drafting concepts. Topics include: preparing residential working drawings; architectural symbols, details, abbreviations and dimensioning methods; and an overview of building codes. Students investigate the four major building materials used in construction: steel, concrete, wood, and masonry. Prerequisites: None.

An introduction to surveying drafting. Topics include: contour maps from field notes, cross sections, grading plans, volume
calculations, deed abstracts, boundary plats, and building permit drawings. Students should complete MAT 1171 prior to or concurrently with this course.
Prerequisites: CET 7910.

## 7026 Architectural Design

A continuation of CET 7024. Topics include: the detail and information required in a complete professional set of architectural working drawings and designing a set of architectural working drawings for an office building. Students use special CAD design software to facilitate the design process.
Prerequisites: CET 7024, CET 7927.

## 7910 Surveying Measurements

3-2-4
An introduction to field measurement techniques. Topics include: units, field note format, instrument usage, taping, differential leveling, total station use including horizontal and vertical angles, bearing and azimuths, and construction layout including an introduction to GPS.
Prerequisites: MAT 1162 or appropriate COMPASS score.

## 7913 Introduction to Civil Engineering Technologies

1-0-1
An introduction and orientation to the Civil Engineering
Technology program and to the CET profession with an emphasis on cooperative education.
Prerequisites: None.
7914 Civil Computer Applications 1-2-2
An introduction to computer applications within the Civil
Engineering Technology field. Students use word processing, spreadsheet, and presentation software as it relates to their career field. Prerequisites: None.

7915 OSHA 10-Hour Construction Safety $\mathbf{0 - 2 - 1}$
An overview of key OSHA Construction Industry Safety Standards and basic principles of construction safety. Students receive an OSHA Certificate upon successful completion. Topics include: interpreting applicable OSHA regulations; fall protection; excavations; electrical safety; and key elements of hazardous material handling. CET students must successfully complete this course during their first co-op term.
Prerequisites: None.

## 7920 Surveying Calculations

2-3-3
A course on the problem-solving calculations central to all surveying topics. Topics include: traverse closure, area, and coordinate calculations. Includes both manual and computer solutions.
Prerequisites: CET 7910.

## 7921 Construction Surveying 2-3-3

A course on fundamental construction layout principles required for typical construction projects. Topics include: basic control networks; coordinate systems and coordinate geometry; alignment and grade for structures, roadway, and utilities; data collector use; and RTK GPS data acquisition, positioning, and mapping. Prerequisites: CET 7910.

## 7926 Building Codes

1-3-2
An introduction to building code requirements. Topics include: the Ohio Basic Building, Mechanical, Electrical, and Plumbing codes as they apply to designing and constructing building projects. Prerequisites: CET 7024.

## 7927 CAD 1 (CET)

2-3-3
A continuation of CET 7935. Topics include: CAD drawing,
modifying and dimensioning commands as they apply to civil
engineering drawings, and other CAD techniques such as paper space, model space, blocks, and attributes.
Prerequisites: CET 7935.

## 7928 CAD 2 (CET)

1-6-3
A continuation of CET 7927. Topics include: isometric and threedimensional drawing techniques, and surfacing. Students use CAD design software for architectural modeling, rendering, and animation. Prerequisites: CET 7927.

## 7930 Route Surveying

4-2-5
A course on the elements of road and right-of-way surveying. Topics include: calculation and layout of horizontal curves, vertical curves, spiral transition curves, super-elevation, and typical sections. Includes extensive use of coordinate calculations using CAD design software in practical applications.
Prerequisites: CET 7920.

## 7931 Light Construction

3-2-4
An introduction to residential and light commercial construction concepts, drawing upon the building code and other sources. Topics include: construction methods such as wood framing, brick veneer, lightweight steel, and masonry construction; structural member selection; footing design; and typical construction detailing. Prerequisites: None.

7934 Statics (CET)
2-3-3
A course on the engineering analysis of forces as they are applied to structures. Topics include: force analysis and equilibrium of civil engineering structures, centroids, moment of inertia, and static friction. Prerequisites: MAT 1191.

## 7935 Introduction to CAD (CET)

An introduction to computer aided drafting. Topics include: fundamentals of CAD software and GUI interaction emphasizing draw, display, modify, plot, layer, utility, and setting commands. Prerequisites: MAT 1162 or appropriate COMPASS score.

## 7936 HVAC Design Systems

3-2-4
A study of heating, ventilation, and air conditioning (HVAC). Topics include: heat loss and heat gain design, distribution (ductwork design), equipment selection, an introduction to controls, the effect of electrical loads on HVAC, and air quality issues.
Prerequisites: MAT 1191 or MAT 1172, CET 7026, CET 7927.

## 7940 Elements of Land Surveying 1

An advanced course on the elements of boundary surveys. Topics include: document research, deed descriptions, US public lands survey system, Ohio land subdivisions, and legal aspects of land surveys. Prerequisites: CET 7920.

7941 Computer Integrated Construction (CIC)
1-5-3
An introduction to three construction software packages. Students prepare estimates using Timberline's Precision Estimating Extended, create schedules using Primavera SureTrak Project Manager, and perform project controls with web-based Meridian ProjectTalk. Prerequisites: None.

7942 Construction Management 1
2-3-3
An examination and comparison of project delivery systems. Topics include: advantages and disadvantages of the services of each system. Students learn to manually draw and calculate CPM schedules and create schedules for various projects.
Prerequisites: None.
7943 Construction Estimating
2-3-3
A course on construction estimating. Topics include: quantity

## CET - Civil Engineering Technology

takeoff, types of estimates, bidding procedures, types of contracts, and selecting the contractor. Students perform a detailed manual estimate from a set of working drawings.
Prerequisites: None.

## 7944 Strength of Materials (CET)

3-2-4
A course on the behavior and ability of engineering materials to resist forces. Topics include: Hooke's Law, temperature effects, connection analysis, beam mechanics, shear and moment diagrams, and combined stress.
Prerequisites: CET 7934.

## 7945 Cost Engineering

2-3-3
A course on analyzing construction economic factors through determining cost, schedule, and productivity. Topics include: formulating and calculating unit prices and unit costs, crew mix, productivity rates, feasibility studies, buy versus rent scenarios, project cash flow, cost indices, budget status reports, true profit, and value engineering studies.
Prerequisites: CET 7943.

## 7946 Construction Scheduling

2-3-3
Topics include: establishing schedule activities, durations, and logic. Students manually draw and calculate CPM schedules. Prerequisites: None.

## 7947 Drainage Control Systems

3-2-4
An introductory course on designing drainage systems for storm runoff removal. Topics include: analyzing hydrologic problems by the Rational Method, hydrology, detention systems, storm sewers, open channels, culverts, and erosion control principles emphasizing practical application.
Prerequisites: CET 7927.

## 7948 Subdivision Design 1

2-3-3
An introduction to residential subdivision design. Topics include: general zoning and subdivision regulations such as lot, street, and easement design. Labs use CAD design software.
Prerequisites: CET 7025, CET 7930.
7949 Geographic Information Systems $1 \quad$ 3-2-4
A introductory course on geographic information systems. Topics include: GIS terminology, data acquisition, and applications. Students use IDRIS and ESRI software in lab.
Prerequisites: CET 7935.
Corequisites: CET 7940.

## 7950 Surveying Field Project

1-6-3
Specialized project using fundamental theories and standard practices involved in surveying. Topics include: courthouse research, field reconnaissance and measurement, resolution, computer mapping, platting, and legal description writing.
Prerequisites: CET 7940.
Corequisites: CET 7958.

## 7953 Construction Management 2

2-4-4
The capstone course for the construction management major. Students draw upon and integrate knowledge from previous courses into a detailed oral and written construction management project proposal. Discussion topics include: construction safety, construction law, and ethics in the construction industry. Prerequisites: CET 7941.

## 7954 Reinforced Concrete Design

3-2-4
A course on the theory and design process for common reinforced concrete members. Topics include: designing flexural and shear
reinforcing in beams, designing columns using the ACI ultimate strength design method, standard testing procedures, and the properties of concrete as a structural material.
Prerequisites: CET 7944.

## 7955 Building Construction

3-2-4
An exploration of commercial construction methods and materials. Topics include: steel and concrete framing techniques, building skin and roof enclosure issues, and common interference issues that arise during construction. Lab includes properties of soil as a building material, soil classification, compaction, and other laboratory tests.
Prerequisites: CET 7934, CET 7944.

## 7956 Structural Steel Design

3-2-4
A course covering the theory and design process for common steel members. Topics include: tension member design, column behavior and design, and simple beam design. All design conforms to LRFD per current AISC specifications. Labs utilize structural modeling and analysis software.
Prerequisites: CET 7934, CET 7944.
7958 Control Surveying
1-6-3
An introduction to control surveying. Topics include: basic geodesy, state plane coordinate calculations, vertical control, satellite positioning, and network adjustment. Students observe and adjust a horizontal control network with total stations and GPS equipment. Prerequisites: CET 7930.

7959 Subdivision Design 2
2-3-3
A continuation of CET 7948. Topics include: road profiles, crosssections, sanitary and storm sewer systems, potable water systems, final grading plans, earthwork calculations, and final record plats. All plans use CAD design software for drawing and design. Prerequisites: CET 7930, CET 7947, CET 7948.

7963 Electrical Design Systems
3-2-4
A study of electrical systems in buildings. Topics include:
introduction to electrical theory emphasizing design applications, power distribution (both single and three phase), simple single-
lines, equipment selection, lighting protection, safety issues, and effect of electrical loads on HVAC calculations.
Prerequisites: MAT 1191, MAT 1172, or appropriate COMPASS score; CET 7026, CET 7927.

7964 Mechanical Systems
2-3-3
A study of various mechanical systems used in buildings. Topics
include: water and waste systems (plumbing isometrics), fire protection, acoustics, mechanical devices such as chillers and air dryers, building management systems, and the characteristics of air as an introduction to HVAC.
Prerequisites: MAT 1191, MAT 1172, or appropriate COMPASS score; CET 7026, CET 7927.

7968 Lighting Systems
2-3-3
A course on light sources and lighting design concepts. Topics include: illumination, foot-candles, and surface reflectance, and how these relate to room lighting; lighting calculations; appropriate luminaire selection; cost estimating; and outdoor lighting. Course work includes technical writing and a professional presentation. Prerequisites: MAT 1191, MAT 1172, or appropriate COMPASS score; CET 7026 and CET 7927.

7969 Building Systems Design
3-5-5
Students perform a building design integrating all architectural, mechanical, electrical, plumbing, and acoustical systems into a
predetermined space. Topics include: zoning, building codes, ADA requirements, pipe sizing, equipment selection, power distribution, lighting design, and water and waste systems.
Prerequisites: CET 7964, CET 7968. Students must be registered for or have previously taken CET 7936, and CET 7963.

## 7971 Construction Health \& Safety 1

3-0-3
An introductory course on construction safety management. Topics include: risk management, the Code of Federal Regulations, and OSHA Construction Industry Standards as outlined in Federal Code 29 CFR Part 1926.
Prerequisites: Admitted to Construction Safety Specialist Certificate program.

## 7972 Construction Health \& Safety 2

3-0-3
A continuation of CET 7971. Topics include: the health and safety hazards inherent to the construction industry and continued study of the Occupational Safety and Health Administration (OSHA) Construction Industry Standards as outlined in Federal Code 29 CFR Part 1926.
Prerequisites: CET 7971.
7973 Construction Risk Management \& Insurance $1 \quad$ 3-0-3
A course on insurance issues related to the construction management process. Topics include: financial risk planning, risk management, insurance markets, insurance markets, property insurance, and contractual risks.
Prerequisites: Admitted to Construction Safety Specialist Certificate program.

## 7974 Construction Safety Plan Management

3-0-3
A course on developing construction safety plans. Topics include: essential elements of a safety program, best practices, legal and regulatory requirements related to safety planning, substance abuse programs, accident investigations, contractor management, and crisis management and planning.
Prerequisites: Admitted to Construction Safety Specialist Certificate program.

## 7975 Environmental Issues in Construction

A course on environmental concerns that affect construction activities. Topics include: storm water pollution prevention plans, asbestos abatement, disturbance and abatement of lead-containing materials, silica exposure, and OSHA and EPA regulations related to construction.
Prerequisites: Admitted to Construction Safety Specialist Certificate program.

## 7976 Construction Safety Law

4-0-4
A course that provides an overview of legal issues that affect construction site and project operations. Topics include: basic legal terms, multi-employer worksite rules, using intentional torts, violation of specific safety requirements, and union contracts.
Prerequisites: Admitted to Construction Safety Specialist Certificate program.

7977 Construction Risk Management and Insurance 2 3-0-3 A continuation of CET 7973. Topics include: commercial liability, surety bonds, unemployment and workers' compensation insurance, and non-core insurance needs for contractors. Prerequisites: CET 7973.

## 7981 Geographic Information Systems 2

A continuation of CET 7949. Students build on basic concepts of spatial data and explore advanced concepts of data creation, manipulation, query, analysis, and map presentation using state-of-
the-art software.
Prerequisites: Admitted to Advanced Surveying Certificate program or program chair consent.

7982 Global Positioning Systems for Surveying 2-4-3
An overview of GPS surveying and related issues. Topics include: mission planning, GPS observation, and data processing. Students investigate both static positioning and real-time kinematic positioning. Includes extensive fieldwork and using software in class.
Prerequisites: Admitted to Advanced Surveying Certificate program or program chair consent.

## 7990 Advanced Survey Calculations

3-2-4
An advanced course on survey calculations. Topics include: coordinate geometry review, advanced coordinate geometry methods, least squares adjustment, and error theory. Prerequisites: CET 7994.

7991 Elements of Land Surveying 2
A continuation of CET 7940. Topics include: legal descriptions, easements, riparian rights, ALTA surveys, U.S. Public Land Survey System surveys, and state-specific surveying laws in Ohio,
Kentucky, and Indiana.
Prerequisites: CET 7940.
7992 Elements of Land Surveying 3
An advanced course on boundary surveying. Topics include: U.S. Public Land Survey System and colonial surveying methods, legal descriptions, and plat preparation. Students work in state plane coordinates and use case studies.
Prerequisites: Admitted to Advanced Surveying Certificate program or program chair consent.

## 7993 Surveying Laws and Ethics

A course on state-specific surveying laws from Ohio, Kentucky, and Indiana. Topics include: key historic cases relating to boundary locations and ethics specific to the surveying profession.
Prerequisites: Admitted to Advanced Surveying Certificate program or program chair consent.

## 7994 Statistics for Surveying Applications

3-0-3
An introductory course on statistics used in surveying measurements and civil engineering technology. Topics include: random error propagation and point estimation on data from differential leveling, boundry closure, and control networks.
Prerequisites: Admitted to Advanced Surveying Certificate program.
7999 Special Problems Seminar - Civil Var-Var-Var Individual and independent study and special projects pertaining to the particular technology in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College, or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth term students by special arrangement with the instructor and program chair.
Prerequisites: Program chair consent.

## CHE Chemistry

2200 Introductory Chemistry Accelerated
An accelerated introductory chemistry course for students with previous experience in chemistry. Topics include: properties, structure, and chemical classification of matter; use of symbols, formulas and equations; chemical bonding; radioactivity; properties of acids, bases, salts, and solutions; and naming acids and bases.
Prerequisites: Appropriate score on chemistry placement test.

## CHE - Chemistry

CLT - Clinical Laboratory Technology

## 2202 Introductory Chemistry 1

4-2-5
An introductory chemistry course. Topics include: metric system properties, structure, formulas, bonding, equation writing and balancing, and stoichiometry. The course inlcudes laboratory activities. Prerequisites: DE 0011, DE 0025 or MAT 1105 or appropriate COMPASS score.

## 2203 Introductory Chemistry 2 <br> 4-2-5

A continuation of CHE 2202. Topics include: gas laws, solution chemistry, liquid and solid states, acids, bases, salts, chemical kinetics, and chemical equilibrium. The course involves lectures with laboratory activities.
Prerequisites: CHE 2202 (minimum grade of C).

## 2231 Fundamentals of General Chemistry

3-3-4
A course on college-level general chemistry. Topics include: structure and properties of matter, changes in matter, chemical bonding, chemical reactions, and equilibrium.
Prerequisites: High school chemistry (minimum grade of C), CHE 2200, or CHE 2203 within 3 years, or appropriate CHE pre-test score.

## 2232 Fundamentals of Organic Chemistry <br> 3-3-4

A course on college-level organic chemistry as a foundation for biochemistry. Topics include: carbon bonding, saturated and unsaturated aromatic hydrocarbons, alcohols, phenols; aldehydes, ketones, acids, and amines.
Prerequisites: High school chemistry (minimum grade of C), or CHE 2200 or CHE 2203 or CHE 2231 within 3 years.

## 2233 Fundamentals of Biochemistry

A course in college-level biochemistry. Topics include: carbohydrates, amino acids, proteins, lipids, vitamins, enzymes, and metabolism of body fluids.
Prerequisites: CHE 2232 (minimum grade of C).

## 2236 Physiological Chemistry

3-3-4
An introduction to physiological chemistry for the health professional. Topics include: basic organic concepts such as types of organic compounds, functional groups, and basic organic reactions; carbohydrates; proteins; lipids; nucleic acids; and metabolic cycles. It is strongly recommended that students take CHE 2231 before this course.
Prerequisites: High school chemistry (minimum grade of C), or CHE 2200 or CHE 2203 within 3 years.

## 2251 Freshman Chemistry 1

4-3-5
A general chemistry course emphasizing chemical analysis techniques. Topics include: measurement systems, quantitative aspects of compounds and mixtures, chemical reactions and their quantitative relationships, atomic theory, chemical bonding, and thermochemistry. Laboratory exercises emphasize non-instrumental separation techniques, gravimetric analysis, solution preparation, and analysis by visible spectroscopy.
Prerequisites: High school chemistry (minimum grade of C), CHE 2200 or CHE 2203 within 3 years, and MAT 1151 or appropriate COMPASS score.

## 2252 Freshman Chemistry 2 <br> 4-3-5

A continuation of CHE 2251. Topics include: kinetic molecular theory of gases, liquids, and solids; solution chemistry; kinetics; and equilibrium. Laboratory exercises emphasize solution preparation and volumetric titrations.
Prerequisites: CHE 2251.

2253 Freshman Chemistry 3
4-3-5
A continuation of CHE 2252. Topics include: acid-base equilibrium, solubility equilbrium, thermodynamics, and electrochemistry. Prerequisites: CHE 2252 or CMT 6621.

## 2281 Organic Chemistry 1

A course on principles of carbon chemistry. Topics include:
bonding, structure, mechanisms, properties, reactions, and synthesis; and aliphatic and aromatic hydrocarbons.
Prerequisites: CMT 6631 or CHE 2253 (minimum grade of C). Corequisites: CHE 2284.

## 2282 Organic Chemistry 2

3-0-3
A continuation of CHE 2281. Topics include: alcohols, alkyl halides, ethers, thiois, aldehydes, and ketones; simple synthesis and analysis; and determination of purity.
Prerequisites: CHE 2281 (minimum grade of C), CHE 2284.
Corequisites: CHE 2285.

## 2283 Organic Chemistry 3

3-0-3
A continuation of CHE 2282. Topics include: organic acids and their derivatives and amines; and stereochemistry, spectroscopy, and complex mechanisms.
Prerequisites: CHE 2282 (minimum grade of C), CHE 2285.
Corequisites: CHE 2286.

## 2284 Organic Chemistry Laboratory 1

A laboratory course that accompanies CHE 2281. Laboratory experiences include: general organic laboratory techniques, especially those of purification of organic compounds. Prerequisites: CHE 2253 or CMT 6631 (minimum grade of C) or advisor consent.
Corequisites: CHE 2281.
2285 Organic Chemistry Laboratory 2
0-4-2
A laboratory course that accompanies CHE 2282. Laboratory
experiences include: simple synthesis and analysis, determination of purity, and classical and instrumental techniques.
Prerequisites: CHE 2281 (minimum grade of C), CHE 2284. Corequisites: CHE 2282.

2286 Organic Chemistry Laboratory 3
0-4-2
A laboratory course that accompanies CHE 2283. Laboratory
topics include multi-step synthesis, spectrophotometric analysis, and determination of unknowns.
Prerequisites: CHE 2282 (minimum grade of C), CHE 2285. Corequisites: CHE 2283.

## 2298 Special Problems in Chemistry

Var-Var-Var
A course in special problems in Chemistry related to the student's field of study. Credit for this course will be issued as a pass/no pass grade.
Prerequisites: None.

## 2299 Special Topics in Chemistry

Var-Var-Var
An independent academic pursuit related to the student's field of study, mutually agreed upon by the student and supervising faculty member. The Dean of Humanities and Sciences must approve the plan of study prior to registration.
Prerequisites: None.

## CLT Clinical Laboratory Technology <br> 4011 Microbiology Principles and Techniques

 2-6-4An introduction to microbial growth and required techniques for clinical laboratory students. Topics include: bacteriological media and isolation techniques, staining, aerobic and anaerobic
microbial growth, standardized antimicrobial susceptibility testing, parasitology and mycology techniques, and introduction to identifying microorganisms.
Prerequisites: BIO 4014 (minimum grade C).
Corequisites: CLT 4024.

## 4023 Immunology

3-0-3
A study of the structure and function of the immune system. Topics include: antigen, antibody, lymphocytes, serology complement, immune disease, and transplant reactions.
Prerequisites: BIO 4016, CHE 2236 (minimum grade C).
4024 Immunology and Immunochemical Methods 4-3-5
A study of the structure and function of the immune system and application of immunology to laboratory science. Topics include: humoral and cell-mediated immunity, antigen-antibody reactions, enzyme immunoassay, introductory molecular biology, and diagnosis of disease.
Prerequisites: BIO 4016, CLT 4304 (minimum grade C).

## 4301 Basic Laboratory Techniques

An introduction to equipment, skills, and basic concepts in laboratory science. Topics include: laboratory safety, pipetting, dilutions, quality control, spectrophotometry, laboratory information systems and basic laboratory operations. Prerequisites: BIO 4073, DE 0025 or appropriate COMPASS score, and CHE 2203 or CHE 2200 (minimum grade C for all).

## 4302 Basic Hematology and Hemostasis

A course on the theory and practice of basic hematology and coagulation. Topics include: frequently performed diagnostic tests such as cell counts, examination of blood smears, platelet and reticulocyte counts, prothrombin times, and partial thromboplastin times.
Prerequisites: CLT 4321, CLT 4301 (minimum grade C for both).

## 4303 Basic Urinalysis/Body Fluids

A course on the physiological concepts of the formation of urine as well as its physical, chemical, and microscopic examination in the clinical laboratory. Topics include: normal renal function, pathological conditions, laboratory principles and procedures, and other body fluids of clinical significance.
Prerequisites: CLT 4301 (minimum grade C).

## 4304 Clinical Chemistry

A course on the principles and procedures used in chemical analysis of clinical specimens. Topics include: theory and
procedures of routine manual and automated chemical laboratory analyses and quality control.
Prerequisites: CHE 2231, CHE 2236, CLT 4302, CLT 4303 (minimum grade C for all).
Corequisites: CLT 4317.

## 4305 Immunohematology

3-6-5
A study of blood banking theory and procedures. Topics include: inheritance of blood group determinants, donor procedures, routine ABO grouping and Rh typing, antibody screening and identification, and compatibility testing.
Prerequisites: BIO 4023, CLT 4024, CLT 4301 (minimum grade C).

## 4306 Clinical Microbiology

An advanced course on identifying microorganisms that affect human health. Topics include: specimen types; direct gram stains; and clinical significance and identification of various bacteria, parasites, fungi, and mycobacteria.
Prerequisites: CLT 4011 (minimum grade C).

4307 Hematology \& Hemostasis 2
2-3-3
A continuation of CLT 4302. Topics include: abnormal hematology and hemostasis, including morphological, laboratory, and clinical features of anemias, leukemias, and other blood cell disorders; and common coagulopathies.
Prerequisites: CLT 4302 (minimum grade C).

4308 Immunochemistry 2-3-3
A course in the principles and techniques of immunochemical analysis used in clinical laboratories. Topics include: immunoelectrophoresis, enzyme-linked immunosorbent assay, serological testing, and special chemical analysis of body fluids. Prerequisites: BIO 4023, CLT 4304 (minimum grade C).

## 4309 Clinical Laboratory Seminar

0-3-1
A review course to prepare CLT students for the certification exam. Topics include: review of theory and practice of laboratory procedures in all laboratory areas, including discussion of current developments in clinical laboratory science. Includes a registry-type comprehensive exam.
Prerequisites: CLT 4305, CLT 4306 (minimum grade C for both).

## 4310 Clinical Mycology/Parasitology

1-0-1
A study of basic technology in clinical mycology and parasitology. Topics include: specimen collection and processing, principles of identification, and recognition of common fungi and parasites.
Prerequisites: BIO 4009 (minimum grade C).

## 4311 Clinical Applications 1 -

 Hematology and Coagulation
## 0-6-2

On-campus laboratory practice in routine hematology and coagulation. Topics include: workload organization, computer skills, record keeping, quality control, professional behavior and routine instrumentation maintenance and troubleshooting. Prerequisites: CLT 4307 (minimum grade C).

## 4312 Clinical Applications 2 -

Clinical Chemistry and Urinalysis
0-6-2
On-campus laboratory practice in performance of routine manual and automated procedures in clinical chemistry and urinalysis. Topics include: workload organization, computer skills, record keeping, quality control, professional behavior and routine instrumentation maintenance and troubleshooting.
Prerequisites: CLT 4303, CLT 4304 (minimum grade C for both).
4313 Clinical Applications 3 - Immunohematology 0-6-2
On-campus laboratory practice in routine blood banking and serology. Topics include: workload organization, record keeping, and quality control.
Prerequisites: CLT 4305 (minimum grade C).
4314 Clinical Applications 4 - Clinical Microbiology 0-6-2 On-campus laboratory experience in routine clinical microbiology procedures. Topics include: workload organization, record keeping, and quality control.
Prerequisites: CLT 4306 (minimum grade C).

## 4317 Instrumentation for the Clinical Laboratory

An introduction to principles of basic instrumentation in hematology, hemostasis, and clinical chemistry. Topics include: set-up, operation, computer-instrument interfaces, routine maintenance, and quality assurance procedures for spectrophotometers, particle counters, electrodes, chromatographs, and automated discrete analyzers. Prerequisites: CLT 4302, CLT 4303 (minimum grade C for both). Corequisites: CLT 4304.

## CLT - Clinical Laboratory Technology <br> CM - Cemetery Management <br> CMT - Chemical Technology

4321 Introduction to Clinical Laboratory Science 1-2-1
An introduction to the Clinical Laboratory Science profession. Topics include: roles and responsibilities of Clinical Laboratory personnel, certification, licensure, accreditation, laboratory terminology, departments of the clinical laboratory, and point of care testing.
Prerequisites: None.
Corequisites: CLT 4301.

## 4322 Physical and Chemical Urinalysis

1-2-2
A course on the physiology of urine formation and the physical and chemical analysis of the urine in the clinical laboratory. Topics include: normal renal function, pathological conditions, and practice in manual and automated laboratory procedures. Prerequisites: CLT 4321, CLT 4392, CLT 4393 (minimum grade C for all).

4323 Analysis of Urine Sediment and Body Fluids 1-2-2 A course on the microscopic evaluation of urine sediment and of body fluids other than urine. Topics include: identification and significance of formed elements, correlation with other tests, evaluation of other body fluids and clinical significance. Prerequisites: CLT 4321, CLT 4392, CLT 4393 (minimum grade C for all).
Corequisites: CLT 4322.

## 4340 Introduction to Phlebotomy Techniques

0-3-1
An introductory course on phlebotomy techniques. Topics include: related anatomy, collection equipment and techniques, age-related collection techniques, specimen quality criteria, professionalism, and communication. Students practice phlebotomy techniques with training arms.
Prerequisites: CLT 4304, CLT 4307, CLT 4317 (minimum grade C for all).

## 4350 Orientation to the Clinical Lab

0-8-1
An introductory course on the clinical laboratory setting. Topics include: skill development, problem solving, patient care and communication, and professionalism. Students perform phlebotomy under the supervision of a qualified phlebotomist. Prerequisites: CLT 4321, CLT 4392, CLT 4340 (minimum grade C for all).
Corequisites: CLT 4340.

## 4353 Clinical Laboratory Practice

1-40-6
Students apply theories and procedures in hematology, urinalysis, and clinical chemistry in a local clinical laboratory.
Prerequisites: CLT 4311, CLT 4312, CLT 4350 (minimum grade C).

## 4392 Safety and Standard Precautions for Health Care Personnel <br> 0-1-1

A basic course on safety and standard precautions for students pursuing a career in health care. Topics include: safe handling of physical, chemical, and biological hazards with emphasis on bloodborne pathogens and infection control techniques. Prerequisites: None.

## 4393 Point-of-Care Laboratory Testing

1-3-2
An introductory course on laboratory tests designated as waived tests by the Clinical Laboratory Improvement Act (CLIA). Topics include: testing protocols, reagent preparation, quality control, and related laboratory equipment. Students perform representative waived tests.
Prerequisites: DE 0024 or appropriate COMPASS score; and CHE 2200 or CHE 2203, BIO 4073 (minimum grade C for all). Corequisites: CLT 4392.

4394 Interpretation of Laboratory Value $\quad \mathbf{3 - 0 - 3}$
A course on interpreting laboratory reports for practitioners and students in other health professions. Topics include: sample collection and analysis, and reporting and interpreting results for many of the clinical laboratory tests.
Prerequisites: None.

## 9374 Parallel Cooperative Education Clinical Laboratory Technology

1-20-1
The Clinical Laboratory Technology student participates in a part-time paid field learning experience. This experience provides an opportunity to apply knowledge and skills acquired in class. The student must adhere to the Health Technologies Division Student Handbook and program requirements.
Prerequisites: CLT 4353 (minimum grade C), admitted to the CLT program, 2.0 minimum GPA.

## CM Cemetery Management

9250 Cooperative Education Cemetery Management 1-40-2
Students seeking an associate's degree participate in a paid field
learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the CM program, 2.0 minimum GPA.

## 9251 Cooperative Education

Cemetery Management-Parallel
1-20-1
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the CM program, 2.0 minimum GPA.

## CMT Chemical Technology

6611 Chemistry 1 and Quantitative Analysis
4-4-6
A course that emphasizes chemical analysis techniques. Topics include: measurement systems, quantitative aspects of compounds and chemical reactions, atomic structure, and bonding. Laboratory emphasizes separation techniques, gravimetric analysis, and solution preparation. High school chemistry or equivalent within past three years required.
Prerequisites: MAT 1171 or appropriate COMPASS score.

## 6618 Basic Practices for

Chemical Laboratory Technicians
3-0-3
An introductory course for laboratory technicians. Topics include: the role of the laboratory technician in industry, laboratory safety, quality programs, regulatory and compliance policies, problem solving, basic statistics, and laboratory error.
Prerequisites: None.
6619 Computer Analysis of Laboratory Data
3-0-3
A course on the application of software as a laboratory tool for technicians. Emphasizes Excel as the data analysis package and use of Internet as a scientific literature research tool.
Prerequisites: None.
6621 Chemistry 2 and Quantitative Analysis
4-4-6
A continuation of CMT 6611. Topics include: kinetic molecular theory of gases, liquids and solids; solution chemistry; kinetics, and equilibrium. Laboratory exercises emphasize solution preparation and volumetric titrations.
Prerequisites: CMT 6611.

# CMT - Chemical Technology <br> CRJ - Criminal Justice CUL - Culinary Arts 

## 6631 Chemistry 3 \& Quantitative Analysis

4-4-6
A continuation of CMT 6621. Topics include: acid-base equilibrium solubility equilibrium, thermochemistry, and electrochemistry. Laboratory exercises emphasize volumetric analysis.
Prerequisites: CMT 6621.
6641 Instrumental Chemical Analysis 1: Spectroscopy 3-3-4 A course on spectrophotometric methods of chemical analysis. Spectroscopic techniques include: Visible and UV, Infra-red (FTIR), Atomic Absorption (AA), Inductively Coupled Plasma (ICP),
Nuclear Magnetic Resonance (NMR), and Mass Spectrometry (MS). Prerequisites: CMT 6631, CHE 2232 or CHE 2281.

6649 Chemical Technology Capstone 2-3-3
A project-oriented course in which students develop an experimental procedure, perform testing, apply statistical techniques, and incorporate the data into a formal report. The project pertains to the student's technical specialty area.
Prerequisites: CMT 6651.
6651 Instrumental Chemical Analysis 2: Chromatography

3-3-4
A course on chromatographic methods of chemical analysis. Topics include: Gas Chromatography (GC), High Performance Liquid Chromatography (HPLC), GC-Mass Spectrometry, and independent laboratory techniques in instrumental analysis.
Prerequisites: CMT 6641.

## 6698 Special Problems Seminar - CMT Var-Var-Var

Study of selected topics in chemical technology designed to meet current needs. Content and emphasis vary from year to year. Prerequisites: None.

## CRJ Criminal Justice

1250 Introduction to Criminal Justice
An overview of the American criminal justice system, its development and elements. Topics include: police, court, corrections, constitutional issues, citizen participation, and current practice. Prerequisites: ENG 1001.

## 1251 Introduction to Policing and Law Enforcement

An overview of structure and practices of policing in the US. Topics include: the relationship of police agencies to other aspects of the justice system, effects of technology, diversity, drug enforcement, cynicism, corruption, reform, and community relations. Prerequisites: CRJ 1250.

## 1252 Introduction to Corrections

An introduction to the history, principles, and practices of the corrections system. Topics include: an overview of the major components of incarceration, parole, and probation; developing practices; the operations of jails and prisons; and alternatives to incarceration including community-based programs.
Prerequisites: CRJ 1250.
1253 Criminal Courts \& Procedures 1
3-0-3
An overview of the American legal system from a criminal justice perspective. Topics include: the basic procedures and applications of criminal law through the US Constitution, Bill of Rights, and recent case law.
Prerequisites: CRJ 1250.
1254 Criminal Courts \& Procedures 2 3-0-3
An overview of the American legal system from a criminal justice perspective. Topics include: applying the knowledge and skills from CRJ 1253 with emphasis on case law and court procedures. Prerequisites: CRJ 1253.

1255 Criminal Law
3-0-3
An overview of the American legal system from a criminal justice perspective including the basic elements of criminal law as defined by the Ohio Revised Code.
Prerequisites: CRJ 1254.
1256 Criminal Investigation Skills
3-0-3
An overview of basic investigation skills. Topics include: criminalistics, forensics, evidence types, procedures for handling, and admissibility.
Prerequisites: CRJ 1250.
1257 Juvenile Delinquency
3-0-3
A comprehensive study of juvenile delinquency and the juvenile court system.
Prerequisites: ENG 1001.
1298 Workshops in Criminal Justice
Var-Var-Var
Study of selected topics in criminal justice designed to meet current needs. Content and emphasis vary from year to year. Prerequisites: None.

1299 Special Studies-Criminal Justice
Var-Var-Var
Individual study and special projects pertaining to the student's area of concentration. This course is open to students wishing advanced standing or independent study. Students arrange this course with the advisor; requires consent of the Dean of Humanities and Sciences.
Prerequisites: None.

## CUL Culinary Arts

2819 Garde Manger Theory
2-0-2
A course on setting up a garde manger kitchen and the dishes needed to present a grand buffet. Students plan and design a buffet menu for a grand event from planning to the event operational stage.
Prerequisites: CUL 2823, CUL 2827.
Corequisites: CUL 2824.
2822 Principles \& Methods of Cooking 1
0-9-3
A course on fundamental cooking skills and competencies. Topics include: basic cooking methods, and identifying and operating kitchen equipment in a safe and sanitary manner.
Prerequisites: DE 0024 or appropriate COMPASS score.
Corequisites: CUL 2831.
2823 Principles \& Methods of Cooking 2
0-9-3
A continuation of CUL 2822. Topics include: knife skills, advanced classical sauces and soups, hot and cold salad combinations, light entree selections, hot and cold breakfast menu items, and a review of cooking methods using meat, fish, and poultry.
Prerequisites: CUL 2822, CUL 2831.
2826 Restaurant and Banquet Cooking
0-9-3
A capstone course in which students develop and prepare menus and refine skills to meet the standards required as a certified cook. Students must earn a minimum score of $65 \%$ on the London City and Guilds Institute comprehensive exam.
Prerequisites: CUL 2843.

## 2831 Theory of Cooking

3-0-3
An introduction to cooking theory using lecture, industry models, and discussion. Topics include: history of modern food service; standard cooking equipment; and principles and methods of stock, sauce, soup, fish, shellfish, meat, vegetable, starch, and breakfast cookery.
Prerequisites: None.
Corequisites: CUL 2822 or CUL 2836.

## 2832 Preparation and Cooking

2-3-3
A cooking lab emphasizing cold food preparation, breakfast and lunch cookery, plate design, and buffet presentation.
Prerequisites: CUL 2836, CUL 2831.

## 2833 Culinary Baking 1

2-3-3
An introduction to formulating baking recipes and measuring and selecting ingredients for baking formulas. Topics include: preparing various basic pastry, yeast, and cake items and their application to the hotel and restaurant industry.
Prerequisites: CUL 2832.

## 2834 Culinary Baking 2

2-3-3
A course on preparing flour confectionery desserts and cold preparations suitable for the hotel and restaurant industry. Topics include: assembling and decorating various types of cakes and gateau and making cookies, petit fours, and small confectionery items. Prerequisites: CUL 2833.

## 2835 Production Cooking

3-3-4
The culminating food preparation course for the Culinary Certificate student. Through laboratory experience, students work in the various stations in a commercial kitchen and assist in planning, organizing, and implementing catered service, banquet service, and cafeteria service.
Prerequisites: CUL 2832, CUL 2833, CUL 2834, CUL 2836.
2836 Cooking Skills and Methods
1-4-3
A hands-on course for Culinary Arts certificate students. Topics include: kitchen skills development; principles and methods of cookery; and soup, sauce, starch, vegetable, and meat cookery. Prerequisites: None.
Corequisites: CUL 2831.

## 2837 Food Service Equipment and Safety

1-0-1
An introductory equipment and safety class for hospitality and dietetics majors. Topics include: lab policy, first aid and safety procedures, and equipment identification and operation.
Students should complete this course prior to enrolling in technical laboratory classes.
Prerequisites: None.

## 2841 Baking Theory for Restaurants

2-0-2
A course on the components of basic flour confectionery production. Topics include: basic principles; ingredients; quick bread formulas; basic sauces, puff pastry, pies, and tarts; and differentiating between recipe development and formulation.
Prerequisites: CUL 2831.
Corequisites: CUL 3611.

## 2870 Personal Chef Principles

2-0-2
A course on the fundamentals of being a personal chef and the situations in which personal chef skills can be applied. Topics include: the set-up, organization, and planning needed to pursue doing business as a personal chef.
Prerequisites: None.

## 2871 Personal Chef Practices

1-4-3
A course that combines students' knowledge of packaging and offering a complete dietary service as a personal chef. Topics include: displaying procedures learned in previous coursework, and finding and cooking for a client throughout the term. The course culminates in completing testing for the registered designation of personal chef.
Prerequisites: Successful completion of all other certificate requirements.

2899 Culinary Symposium
Var-Var-Var
Specialized advanced culinary laboratory courses offered to
second year culinary arts students to fulfill elective requirements. Prerequisites: CUL 2824, CUL 2843.

## 3601 Cooking 1 - Skills Development

0-6-2
A course on fundamental kitchen skills. Topics include: lab orientation and policies, equipment identification and operation, basic knife skills, product identification, and an introduction to cooking methods.
Prerequisites: DE 0011 and DE 0024, or appropriate COMPASS score.

3602 Cooking 2 - Stock Sauces, Soup
0-6-2
A continuation of CUL 3601. Topics include: preparing stocks, lead sauces, and basic soups as well as continued training in knife skills and cooking methods.
Prerequisites: CUL 3601.
3603 Cooking 3 - Meat, Fish, Poultry
0-6-2
A continuation of CUL 3602. Topics include: advanced cooking methods, meat, fish and poultry cookery and an incorporation of all skills learned in CUL 3601 and CUL 3602.
Prerequisites: CUL 3602.

## 3604 Cooking 4 - Restaurant Cooking

0-6-2
An introduction to restaurant cooking. Students prepare breakfast and lunch items for dining room guests.
Prerequisites: CUL 3603.

## 3605 Cooking 5 - Butchery and Fish Mongering

1-3-2
A course on basic butchery and fish fabrication. Topics include:
breaking down various meats from the whole carcass to fabricated cuts; cleaning, scaling, and filleting fish and shellfish; and cooking and presenting the various species of fish and shellfish.
Prerequisites: CUL 3604.

## 3606 Cooking 6 - Nutritional Cooking

0-6-2
A practical application of healthy cooking techniques. Through demonstration and lab experiences, students learn the principles of healthy cooking techniques, how to make appropriate healthy product substitutions, and how to modify existing recipes. Prerequisites: DT 1202, CUL 3603.

## 3607 Cooking 7-Garde Manger

0-9-3
An introduction to the contemporary practice of garde manger.
Topics include: concepts of the cold kitchen such as cold entrees, pates, terrines, vegetable design, and platter and buffet presentation. Prerequisites: CUL 3605.

## 3608 Cooking 8 - International Cuisine

0-6-2
A course on producing international menus emphasizing practical baking, roasting, frying, stir-frying, sauteing, steaming, braising, and stewing skills.
Prerequisites: CUL 3607.

## 3609 Cooking 9 - Banquets

0-9-3
A course on banquet planning, preparation, and execution. Topics include: plate-up, action station and buffet presentation. Students participate in banquet events.
Prerequisites: CUL 3608.
3610 Cooking 10 - Advanced Restaurant Cooking
0-9-3
A course on advanced restaurant cooking. Students prepare appetizers, entrees and desserts for dining room guests.
Prerequisites: CUL 3609.

# CUL - Culinary Arts <br> CULT - Culture Studies <br> DE - Developmental Education 

## 3611 Baking for Restaurants 1

 0-6-2An introduction to the baking and pastry environment. Topics include: identifying raw bakery product; using mixing machines, ovens, and hand equipment; and producing flour confectionery items. Prerequisites: CUL 3601.

3612 Baking for Restaurants 2
0-6-2
A continuation of CUL 3611. Topics include: preparing simple and complex desserts for daily menus, restaurants, banquets, and catering businesses; displaying desserts; and dessert costs.
Prerequisites: CUL 3611.

## 3670 Personal Chef Principles

2-0-2
A course on the fundamentals of being a personal chef and the situations in which personal chef skills can be applied. Topics include: the set-up, organization, and planning needed to pursue doing business as a personal chef.
Prerequisites: None.

## 3671 Personal Chef Practices

1-4-3
A course that combines students' knowledge of packaging and offering a complete dietary service as a personal chef. Topics include: displaying procedures learned in previous coursework, and findng and cooking for a client throughout the term. The course culminates in completing testing for the registered designation of personal chef.
Prerequisites: Successful completion of all other certificate requirements.

## CULT Culture Studies

1602 Issues in Human Diversity
3-0-3
An expansion of applied social psychology principles to the broader scope of human society. Topics include: bias assumptions; stereotypes; the concept of a fair, just, and civil workplace; and legal ramifications. Students participate in structured activities and focused discussion groups.
Prerequisites: DE 0005 and DE 0011 or appropriate COMPASS scores.

## 1645 Technology and Culture

Study and discussion of the impact and consequences of various applications of science and technology, both historical and current, on individuals and cultures.
Prerequisites: Six credits of English composition.

## 1646 Mass Media and Culture

Study and discussion of the role and function of mass media
(newspapers, magazines, film, radio, TV, and computer multimedia) in today's society, including assessment of historical, business, and cultural perspectives and implications.
Prerequisites: Six credits of English composition.

## 1647 Work and Society

3-0-3
A course on the changing aspects of work today. Topics include: the significance and meaning of work to individuals, organizations, and cultures through examination of materials drawn from literary, economic, sociological, political, and other cultural perspectives. Prerequisites: Six credits of English composition.

1648 Social Issues in Technology
A survey of social issues that affect professionals in engineering and information technology fields. Topics include: professional ethics and whistleblowing, diversity and bias in the workplace, and the social effects of globalization and outsourcing.
Prerequisites: ENG 1001.

1680 Introduction to Film Studies 1
2-3-3
A course on film as an expressive art and a cultural artifact, emphasizing American film from its inception to the 1950s. Topics include: developing critical awareness as an audience member; film history, genres and themes; directing and acting styles and technical elements of filmmaking. Students must view required films and complete regular written assignments.
Prerequisites: Six credits of English composition or instructor consent.
1681 Introduction to Film Studies 2
2-3-3
A continuation of CULT 1680, emphasizing American film from the 1950s to the present. Topics include: developing critical awareness as an audience member; film history, genres and themes; directing and acting styles; and technical elements of filmmaking. Students must view required films and complete regular written assignments. Prerequisites: CULT 1680.

1683 Introduction to Broadcasting
3-0-3
Study and discussion of the history and development of radio, television, and other digital broadcast media. Topics include: regulatory, financial, and operating structures; programming content and criticism; and the role and influence of broadcast media.
Prerequisites: Six credits of English composition.

## DE Developmental Education

0003 Basic Writing 1
4-0-4
A course on sentence development and preparation for college level writing.
Prerequisites: None.
0004 Basic Writing 2
4-0-4
A continuation of DE 0003. Topics include: sentence development, paragraph writing, and an introduction to essay writing.
Prerequisites: Successful completion of DE 0003 or appropriate COMPASS score.

0005 Basic Writing 3
4-0-4
A continuation of DE 0004, emphasizing essay development.
Prerequisites: Successful completion of DE 0004 or appropriate COMPASS score.

0010 College Reading 1
4-0-4
A course on reading skills and strategies needed to comprehend college-level textbooks. Topics include: previewing, recognizing main ideas, developing vocabulary, increasing comprehension, and thinking critically.
Prerequisites: None.
0011 College Reading 2
4-0-4
A continuation of DE 0010. Topics include: previewing, developing vocabulary, increasing comprehension, synthesizing information, and thinking critically.
Prerequisites: DE 0010 or appropriate COMPASS score.

0018 Integrated College Prep Skills
Var-Var-Var
Integrated instruction in college preparatory reading, writing,
and basic mathematics fundamentals. Students participate in a collaborative learning community that prepares them for the next level of coursework through group activities and problem-based instruction.
Prerequisites: DE 0010 or appropriate COMPASS score, advisor consent.

0020 Basic Mathematics 1
A review of basic mathematics and preparation for algebra.
Topics include: application problems involving fractions, decimals,

## DE - Developmental Education <br> DMS - Diagnostic Medical Sonography

and percents; ratio and proportion; estimation; measurement; conversion; use of formulas.
Prerequisites: None.

## 0024 Basic Algebra 1

4-0-4
An entry-level algebra course. Topics include: using variable expressions and equations to represent mathematical problems and relationships; interpreting and constructing graphs; using signed numbers; evaluating formulas; solving two-step linear equations; understanding linear relationships using equations, graphs, and tables; and scientific notation.
Prerequisites: Successful completion of DE 0020 or appropriate COMPASS score.

## 0025 Basic Algebra 2

A continuation of DE 0024. Topics include: rates, ratios, and proportions; deeper understanding of linear equation graphs including slope and intercepts; understanding the difference between linear and non-linear relationships; and solving simple systems of linear equations.
Prerequisites: Successful completion of DE 0024 or appropriate COMPASS score.

0098 Workshops in Developmental Mathematics Var-Var-Var Study of selected topics in developmental mathematics designed to meet current needs. Content and emphasis vary from year to year. Prerequisites: None.

## DMS Diagnostic Medical Sonography

4632 Introduction to Diagnostic Medical Sonography $\mathbf{2 - 0 - 2}$ A beginning course on sonography in health care. Topics include: terminology, professional affiliations, departmental function, relationship to other imaging modalities, and professional qualities. Prerequisites: Admitted to the DMS Abdominal/Obstetrics Gynecology program, DMS Cardiovascular program or program chair consent.

## 4633 Introduction to General Imaging Scanning

A beginning laboratory course on scanning techniques and operating ultrasound systems. Topics include: using basic ultrasound machine controls, scan planes, and descriptive terminology associated with obstetrics and gynecology studies and with ultrasonic imaging of the abdomen and small parts. Prerequisites: DMS 4632 (minimum grade C).

## 4634 Principles of Abdominal/OB/GYN Sonography

2-6-5
An introductory course on clinical scanning of abdominal structures. Topics include: concepts and techniques for sonographic imaging and patient care. Includes laboratory experience with scanning techniques and protocols.
Prerequisites: DMS 4633 (minimum grade C).

## 4635 Introduction to Cardiovascular Scanning

A beginning laboratory course on cardiovascular scanning techniques and the operation of ultrasound systems. Topics include: using basic ultrasound machine controls, scan planes, and descriptive terminology associated with cardiac and vascular studies. Prerequisites: DMS 4632 (minimum grade C).

## 4636 Principles of Cardiovascular Sonography

2-6-5
An introductory course on cardiovascular ultrasound procedures and techniques. Topics include: concepts and techniques for sonographic imaging and patient care. Includes laboratory experience with scanning techniques and protocols. Prerequisites: DMS 4635 (minimum grade C).

4637 Sonographic Physics and Instrumentation 1
3-0-3
A course on the theoretical and practical aspects of ultrasound physics and instrumentation. Topics include: characteristics of sound energy; using ultrasound in imaging; and waveforms, propagation, velocity, wavelength, acoustic impedance, reflection, and other types of interaction with tissue.
Prerequisites: DMS 4634 or DMS 4636 (minimum grade C).
4638 Sonographic Physics and Instrumentation 2
3-0-3
A continuation of DMS 4637. Topics include: integrating knowledge of physics with instrumentation theory and applications, advanced signal processing, complex instrumentation, recording devices, biological effects, hemodynamics, Doppler principles, quality control methods, and producing high quality diagnostic images.
Prerequisites: DMS 4637 (minimum grade C).
4640 Issues in Sonography
2-0-2
A course on topics related to the sonography profession. Topics include: legal and ethical issues, laboratory accreditation, education, and research.
Prerequisites: DMS 4642 or DMS 4673 (minimum grade C for both).

## 4641 Cardiovascular Clinical 1 - Part 1

0-24-3
Supervised practice in which students continue to develop cardiovascular diagnostic ultrasound skills in hospitals, clinics, and physician offices. Students receive grades of $N$ at the end of the term; final grade is determined upon completing DMS 4642. Prerequisites: DMS 4636 (minimum grade C).

## 4642 Cardiovascular Clinical 1- Part 2

0-24-3
A continuation of DMS 4641. Students continue to develop cardiovascular diagnostic ultrasound scanning skills in hospitals, clinics, and physician offices. Students are evaluated for final competencies. Prerequisites: DMS 4641.

4643 Cardiovascular Clinical 2 - Part 1
0-24-3
Supervised practice in which students continue to develop cardiovascular diagnostic ultrasound scanning skills in hospitals, clinics, and physician offices. Students receive a grade of $N$ at the end of the term; final grade is determined upon completing DMS 4644. Prerequisites: DMS 4642.

4644 Cardiovascular Clinical 2 - Part 2
0-24-3
A continuation of DMS 4643. Students continue to develop cardiovascular diagnostic ultrasound scanning skills in hospitals, clinics, and physician offices. Students are evaluated for final competencies. Prerequisites: DMS 4643.

## 4645 Echocardiography 1

2-2-3
An introductory course on cardiac sonography. Topics include: cardiac anatomy, physiology, and pathological conditions of the adult heart and visualization of real-time 2-diminsional imaging, Doppler, and M-mode echocardiography.
Prerequisites: DMS 4636 (minimum grade C).

## 4646 Echocardiography 2

A continuation of DMS 4645. Topics include: cardiovascular pathophysiology; quantitative measurements; and applying
2-dimensional, M-mode, and Doppler imaging.
Prerequisites: DMS 4645 (minimum grade C).
4647 Echocardiography 3
2-2-3
A continuation of DMS 4646. Topics include: cardiovascular pathophysiology; quantitative measurements; applying 2-dimensional, M-mode, and Doppler imaging; and transesophageal, intraoperative,
and other diagnostic procedures.
Prerequisites: DMS 4646 (minimum grade C).

## 4648 Vascular Sonography 1

A course on fundamental theory and skills for evaluating vascular disease using noninvasive techniques. Topics include: instrumentation and vascular anatomy, physiology, pathology, and hemodynamics. Students learn testing procedures for the cerebrovascular system.
Prerequisites: DMS 4636 (minimum grade C).
4649 Vascular Sonography 2
2-2-3
A continuation of DMS 4648. Topics include: peripheral arterial and venous pathophysiology; quantitative measures; and applying real-time sonographic imaging, Doppler imaging, and spectral analysis; and physiologic testing.
Prerequisites: DMS 4648 (minimum grade C).
4650 Cardiovascular Seminar
A course that correlates sonographic concepts and clinical applications in cardiovascular sonography, provides preparation for the ARDMS examination, and facilitates transition from student to entry-level cardiovascular sonographer.
Prerequisites: DMS 4644 (minimum grade C).

4654 Vascular Sonography 3
A continuation of DMS 4649. Topics include: abdominal vasculature imaging, interventional vascular procedures, and other diagnostic vascular tests.
Prerequisites: DMS 4649 (minimum grade C).
4655 Cardiovascular Clinical 3
0-28-4
Supervised off-campus experience and practice of diagnostic cardiovascular ultrasound procedures in hospitals, clinics, and private physician offices. Students build on previous clinical experiences in ultrasound scanning skills and techniques and are evaluated for final competencies.
Prerequisites: DMS 4644 (minimum grade C).

## 4656 Cardiovascular Specialties

3-0-3
A course on advanced cardiovascular procedures and technologies. Topics include: quality assurance testing, contrast agents, 3-dimensional imaging, and other diagnostic procedures. Prerequisites: DMS 4647, DMS 4654 (minimum grade C for both).

## 4672 Clinical Sonography 1 - Part 1

0-24-3
Supervised off-campus practice of abdominal, OB/GYN and small parts ultrasound procedures in hospitals, clinics, and physician offices. Students receive a grade of N at the end of the term; final grade is determined upon completing DMS 4673. Students are evaluated for final competencies.
Prerequisites: DMS 4634.

## 4673 Clinical Sonography 1 - Part 2

0-24-3
A continuation of DMS 4672. Students continue to develop ultrasound scanning skills and techniques by performing abdominal, small parts, and OB/GYN diagnostic ultrasound procedures in an off-campus health care facility. Students are evaluated for final competencies.
Prerequisites: DMS 4672.

## 4674 Clinical Sonography 2 - Part 1

The first part of a two-part sequence of supervised practice. Students develop ultrasound scanning skills and techniques by performing abdominal, small parts, and OB/GYN diagnostic ultrasound procedures in an off-campus health care facility.

Students are evaluated for competencies. Grades of N are conferred at the end of the term; final grades determined upon completion of DMS 4675.
Prerequisites: DMS 4673 (minimum grade C).
4675 Clinical Sonography 2 - Part 2
0-36-5
A continuation of DMS 4674. Students continue to develop ultrasound scanning skills and techniques by performing abdominal, small parts, and OB/GYN diagnostic ultrasound procedures in an off-campus health care facility. Students are evaluated for final competencies.
Prerequisites: DMS 4674 (minimum grade C).

## 4676 Abdominal Sonography 1

2-2-3
An introduction to abdominal sonography. Topics include: interpreting clinical tests, related clinical signs and symptoms, and normal and abnormal sonographic patterns. Includes laboratory experience with scanning techniques and protocol relative to abdominal structures and physiology.
Prerequisites: DMS 4634 (minimum grade C).
4677 Abdominal Sonography 2
A continuation of DMS 4676. Topics include: interpreting clinical tests, related clinical signs and symptoms, and normal and abnormal sonographic patterns. Includes laboratory experience with scanning techniques and protocol relative to abdominal structures and physiology.
Prerequisites: DMS 4676 (minimum grade C).
4678 Superficial and Small Parts Sonography
2-2-3
A continuation of DMS 4677. Topics include: superficial structures in sonography; presenting basic small parts anatomy; and scanning techniques and protocols for identifying normal and abnormal sonographic patterns in the breast, thyroid, scrotum, prostate, and musculoskeletal system.
Prerequisites: DMS 4677 (minimum grade C).

## 4683 OB/GYN Sonography 1

2-2-3
An introduction to obstetrical and gynecological sonography. Topics include: interpreting clinical tests, imaging methods of the female pelvis, normal gravid uterus, related clinical signs and symptoms, and normal sonographic patterns.
Prerequisites: DMS 4634 (minimum grade C).
4684 OB/GYN Sonography 2
A continuation of DMS 4683. Topics include: abnormal etiology and diagnostic techniques related to fetal development, obstetrical scanning techniques and protocols, and detecting abnormalities and pathology.
Prerequisites: DMS 4683 (minimum grade C).
4685 OB/GYN Sonography 3
2-2-3
A continuation of DMS 4684. Topics include: special procedures in OB/GYN sonography, high-risk obstetrics, deviations from normal development, and detecting abnormalities and pathology. Prerequisites: DMS 4684 (minimum grade C).

## 4687 Sonography Seminar

2-0-2
A course that provides correlation between previously learned sonographic concepts and clinical applications in general sonography. Topics include: student transition to an entry-level general sonography position and preparation for the ARDMS examination. Prerequisites: DMS 4674 (minimum grade C).

## DT Hospitality Management Technologies

1201 Dietetics Professional Practice
1-0-1
A mandatory orientation course for students who wish to complete dietetic supervised practice or practicum courses. Topics include: dietetic professional practice requirements, dietetic licensure, HIPAA training, and portfolio development.
Prerequisites: None.

## 1202 Nutrition for a Healthy Lifestyle <br> 3-0-3

A review of basic nutrition concepts and diets for healthy living. Topics include: fundamentals of nutrition and metabolism, health promotion and risk, disease prevention, complementary/alternative therapies, dietary supplements, life cycle nutritional concerns. Prerequisites: DE 0024, DE 0011.

1203 Cooking for a Healthy Lifestyle
1-3-2
A course that integrates basic food preparation techniques and healthy food choices for the individual. Topics include: basic food preparation, selecting healthy food, modifying recipes, and food safety for the consumer. Students prepare and evaluate healthy foods in the laboratory.
Prerequisites: None.

## 1204 Nutrition for the Life Cycle

3-0-3
The study of nutritional needs from conception through maturity. Topics include: influence of age, growth, and normal development on nutritional requirements across the lifespan; diet planning principles for diverse age groups; and promoting healthy eating to reduce age-related nutrition problems.
Prerequisites: DT 1202.

## 1205 Nutrition Assessment 1

1-2-2
An introduction to nutrition assessment techniques. Topics include: nutrition screening and assessment, nutrient calculations, laboratory tests, drug-nutrient interactions, complementary and alternative nutrition, computerized nutrient analysis, communication, and interviewing skills.
Prerequisites: DT 1204.
1206 Community Nutrition
2-0-2
A study of food and nutrition programs for the individual, family, and community. Topics include: food availability; food and nutrition laws, regulations, and policies; and the influence of socioeconomic, cultural, and psychological factors on food and nutrition behavior. Prerequisites: DT 1204.

1207 Food and Culture
1-3-2
The study of sociocultural and ethnic food patterns for diverse populations. Students plan, present, monitor, and evaluate a cultural food event. This is a team-based project for students near degree completion.
Prerequisites: DT 1202, HRM 2854 or CUL 2822.

## 1208 Food Systems Management 1

An introduction to meal service systems for health care environments. Topics include: evaluating meal production, service, and delivery systems; quality improvement; risk management; forecasting; and food service equipment. Prerequisites: MAT 1108, HRM 2801, HRM 2854 or CUL 2822.

## 1209 Food Systems Management 2

1-0-1
A continuation of DT 1208. Topics include: productivity, work simplification, budgeting, marketing, human resources, employee training, and ethics.
Prerequisites: DT 1208.

1220 Nutrition for Dietary Managers
2-0-2
The study of nutrition for the dietary manager's scope of practice. Topics include: basic medical nutrition therapy, documentation, care planning, nutrition education, and health care regulations. Prerequisites: DT 1201, DT 1205.

## 1221 Dietary Manager Exam Review

A review course for students who are planning to take the Dietary Manager credentialing examination.
Prerequisites: Students have already met the exam requirements by graduating from an approved DMA program or other DMA approved eligible pathway. Students have registered or plan to register for the exam through DMA.

## 1230 Dietetic Directed Practice - Lifespan

0-5-1
Supervised practice experience for community and life cycle nutrition. Topics include: practice in evaluating nutrition services for a variety of community-based programs, food assistance programs, and programs that serve diverse special needs populations.
Prerequisites: DT 1201, DT 1204.
Corequisites: DT 1205, DT 1206.

## 1231 Dietetic Directed Practice - Health Care 0-5-1

Supervised off-campus practice in a health care facility. Students practice skills including: interviewing, monitoring food and nutrient intake, screening, basic nutrition assessment, documentation, care planning, and menu modification.
Prerequisites: DT 1230.
Corequisites: DT 1220 or DT 1240.

## 1232 Dietetic Food Service Practicum 1

0-7-1
On or off-campus unpaid work experience in which students apply learned concepts to practical situations within the field of dietetics. Topics include: food service management, human resources, and sanitation.
Prerequisites: DT 1201.
Corequisites: DT 1208.

## 1233 Dietetic Food Service Practicum 2

0-7-1
On or off-campus unpaid work experience for dietetic students. Students review competencies, set individual curriculum goals for the course, and complete a final project.
Prerequisites: DT 1232.
Corequisites: DT 1209.
1240 Nutrition Assessment 2
3-0-3
A continuation of DT 1205. Topics include: health assessment, anthropometrics, metabolism, nutrition during health and illness, teaching and counseling theory, and health care systems.
Prerequisites: DT 1205.
1241 Medical Nutrition Therapy 1
2-2-3
The study of clinical nutrition and medical nutrition therapy. Topics include: weight management; disorders of the upper gastrointestinal tract; diabetes mellitus; and diseases of heart, lungs, and blood vessels.
Prerequisites: DT 1240.
Corequisites: BIO 4016, CHE 2236.
1242 Medical Nutrition Therapy 2
2-2-3
A continuation of DT 1241. Topics include: disorders of the lower gastrointestinal tract, nutrition in severe stress, and enteral and parenteral nutrition.
Prerequisites: DT 1241.

1243 Medical Nutrition Therapy 3
2-2-3
A continuation of DT 1242. Topics include: renal disease, liver disorders and nutrition during cancer, and HIV infection.
Prerequisites: DT 1242.

## 1244 Dietetic Technician Seminar

1-0-1
A course that prepares students to enter the dietetics profession.
Topics include: dietetic portfolio process; legislation; practice issues; and dynamic trends in foods, nutrition, and dietetics. Students present their portfolio.
Prerequisites: DT 1252.

## 1245 Dietetic Technician Exam Preparation

1-0-1
A course that prepares students for the DTR examination. Topics include: examination preparation, clinical and food service review, and capstone exam. Students must pass capstone exam to pass the course.
Prerequisites: DT 1232, DT 1252.
1250 Dietetic Technician Directed Practice - MNT 1
0-5-1
Supervised off-campus practice in a health care facility for dietetic technician students. Students build upon previous directed practice experiences. Topics include: clinical nutrition and medical nutrition therapy (MNT) for weight management, diabetes, cardiovascular disease, and disorders of the upper gastrointestinal system.
Prerequisites: DT 1231.
Corequisites: DT 1241.
1251 Dietetic Technician Directed Practice - MNT 2
0-10-2
Supervised off-campus practice for dietetic technician students in a health care facility. Students build upon previous directed practice experiences. Topics include: care plans, enteral and parenteral nutrition regimens, transitional feeding, reimbursement, severe stress, and disorders of the lower gastrointestinal tract.
Prerequisites: DT 1250.
Corequisites: DT 1242.
1252 Dietetic Technician Directed Practice - MNT 3
0-5-1
Supervised off-campus practice for dietetic technician students in a health care facility. Students build upon previous directed practice experiences. Topics include: quality improvement; health care regulations; pediatric nutrition assessment; and medical nutrition therapy for complex medical conditions of cancer, HIV, liver disease, and kidney disease.
Prerequisites: DT 1251.
Corequisites: DT 1243.

## 1253 Dietetic Technician Clinical Practicum

0-7-1
On or off-campus unpaid work experience in a health care environment. This is the final clinical practice experience for dietetic technician students. Students review ADA competencies and set individual curriculum goals for the course.
Prerequisites: DT 1252.

## 1298 Food and Nutrition Symposium

Var-Var-Var
Specialized food and nutrition courses offered to fulfill elective requirements.
Prerequisites: None.

## 1299 Special Studies - Dietetics

Var-Var-Var
Study or special projects pursued by dietetics students seeking college credit in a degree or certificate curriculum. Students must have the plan of study approved by the supervising faculty member and the Dean of Business Technologies. Instructor consent required. Prerequisites: None.

## ECE Early Childhood Care and Education

4356 Enhancing Infant and Toddler Development through Play

4-0-4
A course that facilitates Early Childhood Educators in creating an infant and toddler curriculum that is developmentally appropriate in all areas using play as a basis for individual and group activities. Prerequisites: None.

## 4357 Creative and Recreational Activities

 for School Age Children4-0-4
A course that assists Early Childhood Educators working in before/after school age programs, recreation centers, and summer programs to provide developmentally appropriate activities designed to enhance the learning potential of children ages five through 12.
Prerequisites: None.
4358 Classroom Management for Early Childhood Education

3-0-3
A course that teaches Early Childhood Educators strategies of behavior management for children from birth through age 12. This course explores methods for program design that maximize developmentally appropriate practice techinques for school-age children.
Prerequisites: None.
4359 Foundations of Early Childhood Care and Education

3-0-3
An introduction to the Early Childhood field. Topics include: theorists; historical, social, and philosophical foundations; and requirements for entry into the program. Students must complete the Early Childcare Admissions requirements including reference, background checks (fee charged), and physical exam.
Prerequisites: None.
4360 Principles of Early Childhood Education 3-0-3 A course on the theories of early childhood care. Topics include: theories regarding physical, mental, social, emotional, and cognitive growth and development from birth through age eight, including developmentally appropriate practice.
Prerequisites: None.
4361 Early Childhood 1 - Infant/Toddler
3-0-3
A course on the care and nurturing of infants and toddlers. Topics include: specific strategies for promoting growth and development, classroom management, and guidance in developmentally appropriate childhood practice.
Prerequisites: ECE 4359, ECE 4360, ECE 4368.
Corequisites: ECE 4362.
4362 Early Childhood Practicum 1 - Infant/Toddler 1-7-2
Practical application of childcare principles in an infant/toddler setting. Experiences include observations and supervised direct practice.
Prerequisites: None.
Corequisites: ECE 4361.
4363 Early Childhood 2 - Preschool
3-0-3
A course on developmental principles and educational theories involved in teaching preschool children. Topics include: classroom management and guidance, and inclusion strategies in developmentally appropriate childhood practice.
Prerequisites: ECE 4361, ECE 4362.
Corequisites: ECE 4364.

## 4364 Early Childhood Practicum 2 - Preschool <br> 1-7-2

Practical application of childcare principles in a preschool setting. Includes observation and supervised direct practice.
Prerequisites: ECE 4361, ECE 4362.
Corequisites: ECE 4363.

## 4365 Early Childhood 3-School Age

A course on developmental principles and educational theories involved in teaching children ages five through eight. Topics include: effective structure and environments, curriculum, classroom management, and guidance and inclusion strategies in developmentally appropriate childhood practice.
Prerequisites: ECE 4363, ECE 4364.
Corequisites: ECE 4366.
4366 Early Childhood Practicum 3-School Age 1-7-2
Practical application of childcare and education principles in programs for school-age children. Includes observation and supervised direct practice.
Prerequisites: ECE 4363, ECE 4364.
Corequisites: ECE 4365.
4367 Art, Music, Play for Early Childhood Programs 3-0-3 A course on learning experiences for young children related to art, music, and physical activities. Topics include: selecting materials for indoor/outdoor play equipment, applying theories and techniques appropriate for infants through school-age, classroom management, and guidance in developmentally appropriate childhood practice.
Prerequisites: None.

## 4368 Early Childhood Assessment and

 Observation Techniques2-0-2
A course on strategic and purposeful techniques for assessing the progress of children. Topics include: recording and observing children from infants to school-age.
Prerequisites: None.
Corequisites: ECE 4359.
4369 Parents and Families in Early Childhood Education 2-0-2 An introduction to methods for parent/teacher collaboration. Topics include: effective communication among parents, teachers, and other professionals for enhancing child development; maintaining positive relationships; and including diverse family units.
Prerequisites: None.
4370 Nutrition and Health for Early Childhood Programs 3-0-3 A course on concepts related to basic health, nutrition, and safety management techniques. Topics include: specific procedures for infants and toddlers, childhood illnesses, communicable diseases, and USDA requirements.
Prerequisites: None.
4371 Communicable Diseases of Early Childhood 1-0-1 A course on the recognition, prevention, transmission, and management of early childhood communicable diseases. Prerequisites: None.

## 4372 Child Abuse Recognition and Prevention

A course on various types of abuse children may face. Topics include: recognition and prevention of neglect and physical, mental, emotional, verbal, and sexual abuse.
Prerequisites: None.

A course on the growth and nurturing of oral language development
in infants through school-age children. Topics include: development of listening, communication, and social interaction skills and introduction to early literacy book selections for infants through school-age.
Prerequisites: ENG 1001.
4375 Diversity Education for Early Childhood Programs 3-0-3 A course on providing appropriate educational experiences to assist in socialization of young children. Topics include: global multiculturalism, social studies, inclusion, educational practices, materials, and teacher education.
Prerequisites: None.

## 4376 Exceptional Children

3-0-3
A course on observation, identification, inclusion, and adaptations of learning environments for children who have physical, cognitive, and social development disabilities as well as for gifted children.
Topics include: legal issues, community resources, and communication with families.
Prerequisites: None.
4377 Math and Science for Early Childhood Programs 3-0-3
A course on math and science learning experiences for young children. Topics include: selecting materials, applying theories and techniques for infants through school-age, and developing critical thinking and problem solving skills. Meets State of Ohio benchmark standards for math and science.
Prerequisites: DE 0020 or appropriate COMPASS score.
4378 Administration of Childhood Programs
4-0-4
A course on organization, operation, and management of childcare facilities and family care homes. Topics include: licensing requirements, record keeping, budgeting, working with staff and parents, team building, and resolving conflicts.
Prerequisites: ECE 4365.
4381 Early Literacy 1
3-0-3
Study of reading and writing skills development from birth through age eight. Topics include: assessing the reading and writing processes of children, developing learning experiences to meet individual needs, and involving families in supporting language and literacy development.
Prerequisites: ECE 4374.
4382 Early Literacy 2
3-0-3
A continuation of ECE 4381 with emphasis on the role of the teacher in the promotion of early literacy from birth through age eight. Topics include: creating age-appropriate learning environments, creating and selecting materials, planning curricula, and using a variety of effective learning strategies.
Prerequisites: ECE 4381.

4383 Early Literacy 3
3-0-3
A continuation of ECE 4382 with emphasis on phonemic awareness. Topics include: vocabulary development and selecting and designing materials to accommodate individual and cultural differences. This course meets State of Ohio benchmark standards for reading and writing.
Prerequisites: ECE 4382.
4384 Curriculum Design
3-0-3
A course on planning developmentally appropriate curricula and lessons to enhance childhood cognitive, social, emotional, and physical skills. Topics include: observations, demonstrations of instructional technologies, and software for enhancing curriculum design. Prerequisites: None.

4386 Professional, Legal, and Ethical Issues in Childhood Education
A course on professional practices, confidentiality, NAEYC ethical standards and Code of Conduct, legal issues, and policy implementation for childhood programs.
Prerequisites: ECE 4366.
4387 Special Topics in Early Childhood Care and Education

Var-Var-Var
A course on special topics in early childhood care and education. Content and emphasis vary from term to term. May be repeated for credit.
Prerequisites: None.
4388 Child Development Associate (CDA) Portfolio Development 1-2-2
A course in which Early Childhood Care and Education students complete a resource file to include in the portfolio that documents their skills relevant to the Child Development Associate (CDA) competency areas.
Prerequisites: ECE 4364.

## 4389 Early Childhood Skills

A course for students who hold a valid and current CDA (Child Development Associate) credential and have not graduated from an accredited college or university. Students must demonstrate competency and developmentally appropriate practice in early childhood care and education settings.
Prerequisites: Program chair consent.
9900 Internship - Early Childhood Care and Education 1-20-2 Students participate in a part-time unpaid field experience that provides an opportunity to apply knowledge and skills acquired in class. Students must adhere to program internship policies and procedures to earn credit.
Prerequisites: Admitted to the ECE program.

## 9901 Cooperative Education -

Early Childhood Care and Education 1-40-2
Students participate in a full-time paid field learning experience that provides an opportunity to apply knowledge and skills acquired in class. Students must adhere to program cooperative education policies and procedures to earn credit.
Prerequisites: Admitted to the ECE program.
9902 Parallel Cooperative Education Early Childhood Care and Education

1-20-1
Students participate in a part-time paid field experience that provides an opportunity to apply knowledge and skills acquired in college classes. Students must adhere to program cooperative education policies and procedures to earn credit.
Prerequisites: Admitted to the ECE program.

## ECM E-Commerce Marketing

9254 Cooperative Education-E-Commerce Marketing 1-40-2 Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the E-Commerce Marketing program, 2.0 minimum GPA.

9255 Cooperative Education-E-Commerce Marketing $\mathbf{1 - 2 0 - 1}$ Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic
course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to E-Commerce Marketing program, 2.0 minimum GPA.

## ECO Economics

1512 Microeconomics
An overview of the economic micro-system. Topics include: role of supply and demand in determination of value and resource allocation, consumer choice theory, firm behavior in competitive and imperfect markets, international trade, and comparative advantage. Prerequisites: DE 0005, DE 0011, DE 0024 or appropriate COMPASS scores.

1513 Macroeconomics
3-0-3
An overview of the economic macro-system. Topics include; aggregate demand and supply, government fiscal policy, monetary policy, national income determination, long run growth policies, business cycles, government deficits policies, and effects of international exchange rates.
Prerequisites: DE 0005, DE 0011, DE 0024, or appropriate COMPASS scores.

1514 International Aspects of Economics
A course on the application of micro- and macroeconomics to the global economy. Topics include: theories of comparative economic systems, resource markets, trade policies, economic development, the international monetary system, and trade policies.
Prerequisites: ECO 1512 or ECO 1513 or instructor consent.

## EET Electronic Engineering Technology

7001 Computer Concepts 1-2-2
An introductory course on computers. Topics include: hardware, disk operating systems, basic word processing, elementary programming. Required for all Engineering Technology pre-tech students unless specifically waived by the Dean of Engineering Technologies.
Prerequisites: None.

7007 Introduction to Electrical Engineering Technology 1-3-2 An introduction to fundamental measuring skills in the electrical field. Topics include: basic meter reading, oscilloscope use, software simulation use, and building basic analog and digital circuits. Prerequisites: DE 0020 or appropriate COMPASS score.

7701 Electronic Fundamentals 1
A course on the basic laws of AC and DC electricity and their applications. Topics include: voltage, current, power distribution as applied to resistive circuits, instrumentation, measurement techniques, component testing, basic circuit construction, and troubleshooting.
Prerequisites: MAT 1162 or appropriate COMPASS score.
7705 Survey of Digital Systems
A study of digital combinational logic systems. Topics include: number systems, codes, review of Boolean algebra, logic families, logic simplification methods and implementation of logic equations using NAND and NOR gates, flip-flops, programmable logic arrays, and microprocomputer systems.
Prerequisites: None.
7706 Electrical Fundamentals for MET
2-3-3
An electrical fundamentals course for Mechanical Engineering Technology students. Topics include: voltage, AC and DC current,

## EET - Electronic Engineering Technology

power, resistance, impedance, capacitance, inductance, parallel and series circuits, and using voltmeters, ammeters, and ohmmeters. Prerequisites: MAT 1192.

## 7707 Survey of Analog Devices

3-2-4
A survey of analog devices for students in a non-engineering technology degree program. Topics include: operational characteristics and applications of capacitors, inductors, transformers, diodes, bipolar transistors, operational amplifiers, circuit construction, and troubleshooting.
Prerequisites: EET 7701.

## 7710 DC Circuit Analysis

An introduction to the concept of electricity. Topics include: current, voltage, resistance, and power; applying various laws and theorems to series, parallel, and series parallel circuits; and network analysis using source conversions, Thevenin's, superposition, and maximum power transfer theorems. Students use circuit simulation software.
Prerequisites: None.
Corequisites: MAT 1191 or MAT 1172, EET 7711.

## 7711 DC Circuits Lab

0-3-1
An introduction to circuit construction, measurement, and troubleshooting DC circuits. Topics include: proper techniques and use of instruments commonly used by technicians in theory verification, and troubleshooting. Students use DC power supplies, VOMs, and DMM extensively throughout the course.
Prerequisites: None.
Corequisites: EET 7710.
7716 Computer Calculations for Electronics 3-3-4
A course on applying Microsoft Office Suite to solve problems in electronics applications. Topics include: solving circuit analysis and digital systems problems and designing presentations and laboratory reports with Microsoft Office. Students must have a working knowledge of Microsoft Office.
Prerequisites: CPET 7705 or CPET 7728, EET 7710 or EET 7701.

## 7720 AC Circuit Analysis

5-0-5
An introduction to capacitance and inductance including transient circuit analysis. Topics include: AC waveforms; reactance; impedance; transformers; series, parallel and series-parallel AC circuits and applications of these circuits. Students use PSpice circuit simulation software.
Prerequisites: EET 7710, EET 7711.
Corequisites: MAT 1192, EET 7721.

## 7721 AC Circuits Lab

An introduction to the proper techniques and instruments commonly used by technicians in theory verification and troubleshooting AC circuits. Students use analog and digital oscilloscopes, signal generators, and frequency counters to construct circuits and measure AC electrical quantities.
Prerequisites: EET 7710, EET 7711.
Corequisites: EET 7720.

## 7728 Digital Combinational Logic

Topics include: number systems, codes, a review of Boolean algebra, logic families, logic simplification methods, and implementation of logic equations using NAND and NOR gates and flip-flops.
Prerequisites: None.
7730 Electronics 1
5-3-6
A course on semiconductor theory. Topics include: an introduction
to diode circuits and basic power supply circuits; transistor theory covering biasing and amplification; and small signal amplifiers including common-emitter, common-collector, and cascaded amplifiers. Students use circuit simulation software.
Prerequisites: EET 7720, EET 7721.
7733 Electrical Applications
3-2-4
A continuation of EET 7132, emphasizing the operation and control of solenoid-operated valves used in both hydraulic and pnuematic circuits. Topics include: basic electrical fundamentals, digital concepts, relay logic application, and ladder diagrams. Prerequisites: MET 7132.

7736 Electrical Power Systems $\quad$ 4-2-4
A course on the articles of the National Electrical Code that apply to electrical systems. Topics include: transformer principles, threephase systems, overcurrent devices, conductors, grounding, wiring methods, branch circuits, service entrances, load calculations, and special topics.
Prerequisites: None.
7738 Digital Sequential Logic 3-3-4
Topics include: edge-triggered circuitry, J-K flip-flops, sync and async counters, shift registers, clock circuits, monostable theory, encoders, decoders, multiplexing (time base) displays, and circuit design techniques using MSI ICs.
Prerequisites: EET 7728.
7740 Electronics 2
5-3-6
A continuation of EET 7730. Topics include: FET theory for JFET and MOSFET devices including amplifiers; operational amplifier theory including inverting and non-inverting amplifiers; inverting adder, differential, bridge, and instrumentation amplifiers; and single supply operation and comparators. Students use circuit simulation software.
Prerequisites: EET 7730.

## 7748 Microprocessor Systems 1

3-3-4
A course on microprocessor hardware and software for the Motorola 68 HC 12 family of devices. Topics include: basic microprocessor hardware, number systems, software architecture, the 68 HC 12 instruction set, addressing modes, subroutines, serial and parallel ports, and simple serial data transmission.
Prerequisites: EET 7728.

7750 Electronics 3
3-3-4
A continuation of EET 7740. Topics include: triacs, SCRs, audio
power amplifiers, sensors, control circuits, and advanced power supply design.
Prerequisites: EET 7740, EET 7738.
7751 EET Design Project
3-3-4
Students work in teams to design a system using both analog and digital concepts. Topics include: design theory, feasibility study, engineering economics, and presenting and demonstrating prototype projects.
Prerequisites: EET 7740, EET 7778.
7768 Microprocessor Systems 2
A continuation of EET 7748. Topics include: a study of microprocessor systems signals and timing; memory and I/O expansion techniques; interrupts; event processing; and micro application including keyboard input, display output, analog-todigital input and digital-to-analog output.
Prerequisites: EET 7748.

7771 Soldering and Cabling
1-2-2
Topics include: soldering of printed circuit boards, standard parallel null modems, and RS232 cables; wire wrapping prototype circuits; crimping end connectors on coaxial cables; making telephone cables using RJ-11 connectors; and splicing fiber optic cable.
Prerequisites: None.
7778 Programmable Logic Devices
2-3-3
A course on modern programmable logic devices. Topics include: combinational/sequential logic designs and implementation with ROM, FPLD, FPGA, and ASIC devices; examples of embedded digital circuitry for basic control systems; high speed support logic for modern microcontrollers and applications.
Prerequisites: EET 7730, EET 7738.
7779 Computer Repair: Basic
2-3-3
A course on theory and operation of computer systems. Topics include: operating systems, interface of operating systems and hardware, CPU structures and evolution, bus structures, memory, data storage, input/output devices, motherboard structures, number systems, and serial/parallel data transmission.
Prerequisites: EET 7701 or EET 7710, EET 7711.

## 7780 Computer Repair: General Systems <br> 2-3-3

A continuation of EET 7779. Topics include: demonstrations, lab exercises, diagnostic evaluations, and troubleshooting to the board/component level of personal computer systems using diagnostic software and instrumentation to isolate failures and restore systems to normal operation.
Prerequisites: EET 7779.
7781 Computer Repair: Advanced Systems
A continuation of EET 7780. Topics include: specialized hardware peripherals and devices, system optimization, driver installation, and printer maintenance.
Prerequisites: EET 7780.

## 7799 Special Problems Seminar-Electrical Var-Var-Var

 Individual and independent study and special projects pertaining to the particular technology in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth term students by special arrangement with the instructor and program chair.Prerequisites: Program chair consent.

## EMS Emergency Medical Services

4730 CPR for Health Care Professionals
Comprehensive Basic Life Support course for health care providers. Includes one and two rescuer CPR; adult, child and infant CPR; barrier devices; and AED. Students who successfully complete this course receive an AHA CPR for Health Care Professionals card. Prerequisites: None.

4731 First Aid
A basic first aid course. Topics include: recognizing and responding to emergencies and proper first aid for injuries, sudden illness, and medical emergencies. Students who successfully complete the course receive a First Aid Card.
Prerequisites: None.
4733 CPR - Pedriatric Basic Life Support 0-1-1
An entry-level Pediatric Basic Life Support course for infant and child CPR. Topics include: choking, and infant and child safety. Prerequisites: None.

4734 Heartsaver AED
0-1-1
A course for the lay responder on basic techniques of adult cardiopulmonary resuscitation (CPR) and using an automatic external defibrillator (AED).
Prerequisites: None.

## 4735 BLS for Healthcare Providers

0-1-1
A course for professionals who respond to respiratory and cardiac emergencies. Topics include: adult and pediatric CPR, AED, stroke, and barrier devices.
Prerequisites: None.
4736 Heart Saver First Aid
A first aid course for the worksite rescuer. Topics include: general principles of first aid, medical emergencies, injury emergencies, adult CPR, and AED (automatic external defibrillator).
Prerequisites: None.

4737 ACLS Provider
0-2-1
A course that provides knowledge and skills needed to evaluate and manage the first 10 minutes of an episode of ventricular fibrillation/ventricular tachycardia experienced by an adult. Prerequisites: EMS 4735 or BLS Card or see instructor.

4738 Nurse/Paramedic Bridge Course
6-3-7
A course that enables RNs with appropriate prerequisites to be eligible to take the National Registry Paramedic exam. Upon successfully completing the course and this exam, students are eligible to take the State of Ohio Paramedic Certification. Prerequisites: Three years experience in ER/ICU within last five years, Ohio RN License, ACLS, BTLS, PeP, Ohio EMT.

4739 Pediatric Advanced Life Support
0-2-1
Advanced life support care for the infant and child during the first 10 minutes of resuscitation efforts. Topics include: CPR for infant and child, airway management, drug management and the use of an AED and defibrillator. Student must have completed or currently be enrolled in Paramedic, Nursing, or Respiratory Technical courses. Prerequisites: None.

## 4740 Paramedic Theory \& Practice 1 <br> 6-2-7

A course on Part 1 of the National EMT-Paramedic curriculum. Topics include: airway and ventilation, general pharmacology, and management of respiratory emergencies. Students must have State of Ohio EMT-B Certificate.
Prerequisites: BIO 4016 or EMS 4762 (minimum grade of C). Corequisites: EMS 4741.

4741 Paramedic Clinical Practice 1 1-0-1
A clinical orientation course. Topics include: orientation to the hospital emergency room, Advanced Life Support (ALS) runs, and paramedic equipment. Students must have State of Ohio EMT-B Certificate to enroll in this course.
Prerequisites: BIO 4016 or EMS 4762 (minimum grade of C). Corequisites: EMS 4740.

4742 Paramedic Theory \& Practice 2
A course on Part 2 of the National EMT-Paramedic curriculum.
Topics include: patient assessment, medical emergencies, and management of cardiovascular emergency.
Prerequisites: EMS 4740, EMS 4741 (minimum grade of C).
Corequisites: EMS 4743.
4743 Paramedic Clinical Practice 2
1-10-3
A course on paramedic clinical practice. Topics include: ALS ride time, labor and delivery, and respiratory care in the hospital setting.

## EMS - Emergency Medical Services

Prerequisites: EMS 4740, EMS 4741 (minimum grade of C). Corequisites: EMS 4742.

## 4744 Paramedic Theory \& Practice 3

6-2-7
A course on Part 3 of the National EMT-Paramedic curriculum.
Topics include: the anatomy, physiology, assessment, and management of trauma and burns.
Prerequisites: EMS 4742, EMS 4743 (minimum grade of C). Corequisites: EMS 4745.

## 4745 Paramedic Clinical Practice 3 <br> 1-11-3

A course that provides paramedic clinical practice in real settings. Topics include: ALS ride time, hospital emergency room experience, and intubation rotation.
Prerequisites: EMS 4747, EMS 4743 (minimum grade of C). Corequisites: EMS 4744.

## 4746 Paramedic Theory \& Practice 4

6-2-7
A course on Part 4 of the National EMT-Paramedic curriculum. Topics include: neonatology, pediatrics, geriatrics, and ambulance operations.
Prerequisites: EMS 4744, EMS 4745 (minimum grade of C). Corequisites: EMS 4747.

## 4747 Paramedic Clinical Practice 4

1-12-4
A course that provides clinical rotations in real settings. Topics include: rotations in the emergency room, intensive care unit, pediatric emergency room, and ALS ride time.
Prerequisites: EMS 4744, EMS 4745 (minimum grade of C). Corequisites: EMS 4746.

4748 Paramedic Theory \& Practice 5
6-2-7
A course on Part 5 of the National EMT-Paramedic curriculum. Topics include: review of the National EMT-Paramedic curriculum, including ACLS, BTLS, and PEP.
Prerequisites: EMS 4746, EMS 4747 (minimum grade of C).
Corequisites: EMS 4749.

## 4749 Paramedic Clinical Practice 5

1-15-4
A course that provides clinical practice in authentic settings. Topics include: ALS ride time and hospital emergency room rotation. Prerequisites: EMS 4746, EMS 4747 (minimum grade of C). Corequisites: EMS 4748.

## 4750 Heartsaver Pediatric First Aid/CPR

0-1-1
Pediatric first aid and layperson CPR for adult, infant, and child. Recommended for day care workers.
Prerequisites: None.

## 4751 Basic Trauma Life Support

0-2-1
For advanced EMTs, paramedics and trauma nurses who initially evaluate and stabilize trauma patients. Topics include: rapid assessment, resuscitation, packaging and transport of trauma patients and conditions which cannot be stabilized in the field and require immediate transport.
Prerequisites: EMS 4797 (minimum grade C), ACLS, updated EMT card.

4752 Emergency Critical Care
3-6-5
For the paramedic or registered nurse with at least two years experience. Topics include: advanced skills used in the critical care environment for the stabilization and management of critically ill and/or trauma patients.
Prerequisites: Paramedic or Registered Nurse plus two years ACLS \& BTLS.

4754 CPR and First Aid for Health Care Professionals 0-2-1
Comprehensive Basic Life Support and first aid for health care providers. Students who successfully complete this course receive an AHA CPR for Health Care Professionals card and First Aid Card. Topics include: one- and two-rescuer CPR and AED for adult, child, and infant; barrier devices; resuscitator bags and first aid. Prerequisites: None.

## 4755 CPR Heartsaver AED-Adult \& Child <br> 0-1-1

Adult and child CPR for the layperson. Topics include: Adult CPR, child CPR and AED use.
Prerequisites: None.
4760 Emergency Medical Technician Basic Training $1 \quad$ 3-5-5
A course that provides initial training for EMTs. Students must successfully complete EMS 4760 and EMS 4761 to take the National Registry Exam for EMT-B certification by the State of Ohio. Prerequisites: DE 0011 or appropriate COMPASS score.

4761 Emergency Medical Technician Basic Training 2 3-5-5 A continuation of EMS 4760. Includes the curriculum's clinical component. Students must successfully complete EMS 4760 and EMS 4761 to take the National Registry Exam for EMT-B certification by the State of Ohio.
Prerequisites: EMS 4760 (minimum grade of C).
4762 Paramedic Anatomy and Physiology
A course on the Ohio Department of Public Safety Division of EMS's objectives for anatomy and physiology for paramedics. Prerequisites: EMT-Basic Certification in the State of Ohio.

4763 Paramedic Theory and Practice $1 \quad$ 6-4-8
A course on Part 1 of the National EMT-Paramedic curriculum. Topics include: airway and ventilation, general pharmacology, and management of respiratory emergencies.
Prerequisites: BIO 4016 or EMS 4762 (minimum grade of C for both), EMT B Certificate.

4764 Paramedic Theory and Practice 2
5-14-12
A course on Part 2 of the National EMT-Paramedic Curriculum.
Topics include: patient assessment, medical emergencies, and management of cardiovascular emergency.
Prerequisites: EMS 4763 (minimum grade C).
4765 Paramedic Theory and Practice 3
7-6-10
A course on Part 3 of the National EMT-Paramedic curriculum. Topics include: the anatomy, pathophysiology, assessment, and management of trauma and burns.
Prerequisites: EMS 4764 (minimum grade C).

4766 Paramedic Theory and Practice 4
7-8-11
A course on Part 4 of the National EMT-Paramedic curriculum.
Topics include: neonatology, pediatrics, geriatrics, and ambulance operations.
Prerequisites: EMS 4765 (minimum grade C).
4767 Paramedic Theory and Practice 5
6-8-10
A course on Part 5 of the National EMT-Paramedic curriculum.
Topics include: review of the National EMT-Paramedic curriculum, including ACLS, BTLS, and PEP.
Prerequisites: EMS 4766 (minimum grade C).
4768 EMT-Paramedic Field Experience-Internship 0-40-2
The student participates in an unpaid field learning experience 32-40 hours per week. The student must adhere to the Health and Public Safety Division Student Handbook and EMT-Paramedic

# EMS - Emergency Medical Services <br> EMT - Electro-Mechanical Engineering Technologies 

program requirements.
Prerequisites: EMS 4766 (minimum grade of C).

## 4769 EMT-Paramedic Field Experience- <br> Cooperative Education

0-40-2
The student participates in a paid field learning experience
32-40 hours per week. The student must adhere to the Health and Public Safety Division Student Handbook and EMT-Paramedic program requirements.
Prerequisites: EMS 4766 (minimum grade of C).

## 4770 Emergency First Responder

3-2-4
A course for those first on the scene at a medical emergency. This course follows the curriculum set by the Ohio Department of Public Safety Division of EMS, including airway management, CPR, AED, and illness and injury management.
Prerequisites: None.

## 4771 Basic EMT Refresher

3-2-4
A course that follows the curriculum set by the Ohio Department of Public Safety Division of EMS. Topics include: patient assessment, airway management and intubation, CPR, trauma, medical emergencies, pediatric emergencies, childbirth, anatomy and physiology of the heart, and geriatrics.
Prerequisites: Current Basic EMT Card.

## 4772 EMT Paramedic Refresher <br> 4-2-5

A refresher course for current paramedics. Topics include: patient assessment; cardiac, respiratory, and pediatric medical emergencies; EMS operations, and disaster and emergency planning. Follows the curriculum set by the Ohio Department of Public Safety Division of EMS.
Prerequisites: Current Paramedic Card.

## 4773 EMS Instructor's Course

2-5-3
A State of Ohio EMS Instructor's course. Topics include: teaching techniques for the adult learner, instructional techniques pertinent to the field of EMS, supervised teaching, and skills testing. Students must have five years in the EMS field at the current level and have achieved a minimum of $70 \%$ on the state knowledge test.
Prerequisites: None.

## 4782 Pediatric Education for Pre-Hospital <br> 1-2-2

The assessment of pediatric patients during pre-hospital emergencies. Topics include: techniques on how to approach, assess, and manage pediatric patients involved in trauma, cardiovascular, respiratory, and other life threatening circumstances; communications; packaging; and radio reporting.
Prerequisites: EMT Certificate.

## 4797 Paramedic Technology Special Studies Var-Var-Var

 Study and special projects concerning Paramedic Technology open to State of Ohio certified paramedics wishing advanced standing for an Associate of Technical Studies Degree in Paramedic Technology. This course is arranged with the approval of the Dean of Health and Public Safety Division.Prerequisites: Certified Paramedic (State of Ohio) or approval of Dean of Health and Public Safety Division.

4798 EMS Special Studies
Var-Var-Var
Study and special project/classes/training pertaining to Emergency Medical Services at the basic or paramedic level. This course is arranged with the approval of the Dean of Health Technologies. Prerequisites: Prerequisite will vary depending upon course offered.

4799 EMS Special Studies
Var-Var-Var
Study and special project/classes/training pertaining to Emergency Medical Services at the basic or paramedic level. This course is arranged with the approval of the Dean of Health and Public Safety Division.
Prerequisites: Prerequiste will vary depending upon course offered.

## 9362 Cooperative Education - EMS

0-40-2
The student participates in a paid field learning experience
32-40 hours per week. The student must adhere to the Health and Public Safety Division Student Handbook and EMS program requirements.
Prerequisites: EMS 4766 (minimum grade of C).

## EMT Electro-Mechanical Engineering Technologies

## 7003 Engineering Science Concepts

 3-0-3An introduction to the principles of engineering technology. Topics include: an overview of the various areas of engineering technology including units of measurement and basic formulas. Required for all Engineering Technology pre-tech students unless specifically waived by the Dean of The Center for Innovative Technologies. Prerequisites: None.

7006 Introduction to
Electro-Mechanical Engineering Technology
An introduction to Electro-Mechanical Engineering Technology (EMET) and the EMET program. Topics include: descriptions of the functions and jobs typically performed by electro-mechanical systems technicians, the knowledge and skills requirements of EMET field, industry standards and requirements, the EMET cooperative education and academic programs, and development of goals and of personalized academic/co-op plan to achieve the goals. Prerequisites: None.

7146 Electro-Mechanical Controls 1 (Programmable Controllers-PLCs)
A course on power semiconductor devices used to control large industrial loads such as motors, heaters, and lighting systems. Topics include: transistors, thyristors, resistive loads, and signal and power line conditioning.
Prerequisites: CPET 7728, EMT 7758.

## 7154 Variable Speed Drives

2-2-3
An introduction to variable speed drive technology and applications. Topics include: principles of operation; selecting motors; applying variable speed technology to different types of loads; and troubleshooting, programming, and using soft motor starters, Stepper motors, DC variable speed drives, and AC variable frequency drives.
Prerequisites: EMT 7758.
7157 Electro-Mechanical Controls 2 (Servomechanisms) 3-3-4 A continuation of EMT 7146 emphasizing the concepts of negative feedback for closed-loop servo systems. Topics include: transducers for sensing system parameters; proportional (P), proportionalderivative (PD), and proportional-integral-derivative (PID) positional control systems; computer control of servo-control systems; and simple closed-loop control.
Prerequisites: CPET 7728, EET 7730.
7167 Robotics 1
An introduction to basic robotics concepts and factory automation. Topics include: analyzing industrial robotics applications in automated manufacturing environments, mechanical and electrical

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components, hands-on programming and operation of robots, selecting robots for industrial applications, quality assurance, and rigging.
Prerequisites: EMT 7730.
7758 Motors \& Controls
3-2-4
A course on fundamentals, applications, selection and control of DC, single-phase, and three-phase AC motors. Topics include: operating, selecting, and troubleshooting motors and control circuits; calculating speed, torque, horsepower, and efficiency; motor protection, failure, and troubleshooting; and design, construction and fault analysis.
Prerequisites: EET 7720, EET 7721.

## EMTR Electro-Mechanical Engineering Technology

## 7791 Electronic Devices: Renewable Energy Systems 2-3-3

An overview of electronic devices used in renewable energy systems. Topics include: binary circuits, analog to digital and digital to analog conversion, magnetics, generators, batteries, power efficiencies, and data collection programming.
Prerequisites: (EET 7720 and EET 7721), or EET 7707.

## 7792 Energy Efficiency and Audits

2-3-3
A course on the fundamentals of energy efficiency and measurement. Topics include: conducting energy audits of the home and small business, energy efficiency and conservation, reduction of energy consumption, and application of renewable energies.
Prerequisites: EMTR 7791.

## 7793 Fuel Cell Devices <br> 2-3-3

A course on the fundamentals of fuel cell technology. Topics include: conversion of chemical energy to electricity; components of a fuel cell; power efficiencies; fuel cell applications such as batteries, portable generators, and motors; and transportation. Prerequisites: EMTR 7792.

## 7794 Photovoltaic and Wind Devices

4-3-5
A course on the fundamentals of photovoltaic and wind devices. Topics include: photovoltaic (solar) electrical systems; solar thermal systems; passive solar; wind turbines; and system cost, sizing, installation, and maintenance; and practical applications. Prerequisites: EMTR 7792.

## ENG English

1001 English Composition 1
An introduction to the composition process. Topics include: prewriting, drafting, revising, editing, identifying audiences, and developing a strong thesis that results in a unified and coherent essay with grammatical, mechanical, and stylistic correctness. Prerequisites: DE 0005, DE 0011 or appropriate COMPASS test score.

## 1002 English Composition 2

3-0-3
A continuation of ENG 1001. Topics include: further development of writing skills emphasizing critical reading, reasoning, and argumentation; the research process; and the research paper. Prerequisites: ENG 1001.

## 1003 English Composition 3

3-0-3
A continuation of ENG 1002 including advanced practice of the principles of good writing, emphasizing reading and responding critically to works of literature.
Prerequisites: ENG 1002.

1009 Business English
3-0-3
A course on current practices in business communication. Topics include: composing various types of business-related documents; achieving accuracy in grammar; mechanics; usage; spelling; and syntax.
Prerequisites: ENG 1002.

1010 Technical Writing 1
3-0-3
A course on the principles and practices of composing various types of professional and technical communication. Topics include: audience analysis, planning and preparing documents used for reference or instruction, and integrating visuals with text. Students who register for this course should also register for an upper level course in their degree program.
Prerequisites: ENG 1001 or ENG 1002 and 12 hours in technical area.

## 1011 Business Communications

3-0-3
A course on the principles and practices of composing various types of business correspondence. Topics include: informal and formal business reports, and development of style. Prerequisites: ENG 1001 or equivalent.

1015 Technical Writing 2
3-0-3
A continuation of ENG 1010. Topics include: selecting, organizing, and presenting materials in written and oral reports for professional and technical audiences; preparing surveys, proposals, lab reports, and other job-related reports. Students who register for this course should also register for an upper level course in their degree program. Prerequisites: ENG 1010.

1017 Research and Composition
2-2-3
The study and practice of writing skills emphasizing use of appropriate research methods. Topics include: selection, analysis, interpretation, and documentation of materials from print, electronic, and other sources; interviewing skills; questionnaire design; and other elements of writing non-fiction based on primary and secondary sources.
Prerequisites: ENG 1001 or ENG 1018.
1018 Professional Writing Styles $1 \quad$ 2-2-3
Study and practice of the conventions, styles, and structures of professional non-fiction writing. Topics include: principles of economy, emphasis, clarity, and correctness in planning, composing, and revising prose. Technical Communication degree or certificate students must earn a grade of B or higher. Prerequisites: ENG 1001 or Technical Communication program chair consent.

1019 Professional Writing Styles 2
2-2-3
A continuation of ENG 1018. Topics include: concreteness, unity, coherence, and variety in planning, composing, and revising prose and preparing research-based materials. Technical Communication degree or certificate students must earn a grade of B or higher. Prerequisites: ENG 1018 or Technical Communication program chair consent.

1036 Creative Writing: Poetry
3-0-3
An introduction to the art of writing poetry. Topics include: the invention process, revision, poetic form, and critical response to professional and student works. Students must submit a portfolio of finished work.
Prerequisites: Nine hours of English composition.
1037 Creative Writing: Short Fiction
3-0-3
An introduction to the art of writing short fiction. Topics include:

# ENG - English <br> ESL - English as a Second Language <br> ET - Engineering Technologies <br> EVET - Environmental Engineering Technology 

the invention process, revision, narration, dialogue, characterization, plot, story development, point of view, and critical response to professional and student works. Students must submit a portfolio of finished work.
Prerequisites: Nine hours of English composition.

## 1038 Creative Writing: Non-Fiction

3-0-3
An introduction to the art of writing creative expository prose. Topics include: the invention process, revision, biography, memoir, journal writing, journalistic writing, travel and nature essays, and critical response to professional and student works. Students must submit a portfolio of finished work.
Prerequisites: Nine hours of English composition.

## 1039 Creative Writing: Writing for Children

3-0-3
An introduction to the art of writing for children. Topics include: the invention process, revision, narration, dialogue, characterization, and plot. Genres include: picture books, easy readers, chapter books, and middle grade novels. Students must submit a portfolio of finished work.
Prerequisites: Nine hours of English composition.
1099 Special Problems in Communication Skills Var-Var-Var Individual study and special projects pertaining to the particular program in which the student is enrolled. Open to students wishing advanced standing, independent study, and/or research. Students arrange this course with the instructor and request approval of the Dean of Humanities and Sciences.
Prerequisites: Six hours in communication skills.

## ESL English as a Second Language

0060 English as a Second Language Level $1 \quad 4-0-4$
An intermediate course that integrates listening, reading, grammar, and writing skills. Topics include: cross cultural issues and difficulties facing new immigrants.
Prerequisites: None.
0061 English as a Second Language Level 2
4-0-4
An advanced course which integrates speaking, listening, reading, grammar, and writing skills. Topics include: various American social issues.
Prerequisites: ESL 0060 or appropriate COMPASS score.
0063 English as a Second Language - Conversation $\quad \mathbf{2 - 0 - 2}$ A course that covers speaking and listening skills using a variety of simulated situations. Topics include: American culture and issues facing new immigrants.
Prerequisites: None.
0064 English as a Second Language Advanced Writing 4-0-4
An advanced writing course for Limited English Proficient (LEP) students to prepare for college level composition courses. Topics include: writing process, organization, grammar and mechanics, and sentence structure.
Prerequisites: ESL 0061 or appropriate COMPASS score.

## ET Engineering Technologies

7004 Technical Problem Solving Seminar
2-0-2
A course on problem solving skills for engineering majors. Students use exercises to improve logic and reasoning skills and practice the five basic strategies used in technical problem solving.
Prerequisites: None.
Corequisites: MAT 1161 or DE 0024.

7005 Introduction to Engineering Technology 2-3-3
A course on the engineering technology profession. Topics include: the history of engineering, engineering disciplines, materials, ethics, project management and teamwork, innovation, and design. Prerequisites: DE 0010, DE 0003, or appropriate COMPASS scores.

7099 Special Studies - Engineering Technologies Var-Var-Var Individual and independent study and special projects pertaining to the particular technology in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College or with a specific problem found in the industry in which the student is employed. Students must make special arrangements with the instructor and program chair. Students may substitute this course for technical elective credits. Prerequisites: None.

9300 Technology Career Preparation 1-1-1
A course that assists students to prepare for employment in Information and Engineering Technology Careers. Topics include: a self inventory of personal attributes, career exploration activities, job search and interviewing techniques, and skills that benefit job performance.
Prerequisites: None.

## 9400 Cooperative Education -

Engineering Technologies (Alternating) $\mathbf{1 - 4 0 - 2}$
Students participate in a full-time (minimum of 36 hours per week) paid field learning experience. This experience relates to the student's academic discipline and career goals by providing an opportunity to acquire appropriate knowledge and skills associated with that discipline. Students must adhere to the division's cooperative education policies and procedures.
Prerequisites: Full-time status; admitted to an ET program; 2.0 minimum GPA.

## 9401 Cooperative Education -

Engineering Technologies (Parallel) 1-20-1

Students participate in a paid field learning experience directly related to the program discipline for 15 to 30 hours per week, while registered for a minimum of eight credit hours of program course requirements during that same term. Students must adhere to the Engineering Technologies Division cooperative education policies and procedures.
Prerequisites: Admitted to an ET program, 2.0 minimum GPA.

## EVET Environmental Engineering Technology

7015 Introduction to Environmental Topics
1-2-2
Topics include: basic concepts and terminology associated with environmental science, environmental problems, regulations, and solutions.
Prerequisites: DE 0020 with minimum grade B or appropraite mathematics COMPASS score.

## 7600 Introduction to

Environmental Engineering Technologies
3-0-3
Topics include: the fundamentals of environmental engineering technologies and key environmental concepts.
Prerequisites: None.
7601 Industrial Waste Treatment
A course on the responsibilities of the industrial wastewater treatment plant operator. Topics include: the activated sludge process, physical-chemical treatment, instrumentation, industrial waste monitoring, waste treatment processes, and maintenance.
Prerequisites: EVET 7646 or instructor consent.

## EVET - Environmental Engineering Technology

## 7602 Supervisory Management in the Environmental Field

3-2-4
Concepts and practices of management as they apply to the environmental field. Topics include: problem solving, communication skills, delegation and motivation, planning and organization, and manager-employee relationships.
Prerequisites: None.

## 7603 Operation of Wastewater Treatment Plants <br> 3-2-4

A course on efficient operation of wastewater treatment plants. Topics include: start-up, daily operations, interpretation of lab results, and possible approaches to solving operational problems. The course helps students prepare for certification examinations. Prerequisites: EVET 7646 or instructor consent.

7604 Water Treatment Plant Operations 3-2-4
A course on efficient operation of water treatment plants. Topics include: proper installation, inspection, operation, maintenance, repair, and management of water treatment plants; corrosion control; control of trihalomethanes; and water sample analysis. The course helps students prepare for certification examinations. Prerequisites: EVET 7646 or instructor consent.

## 7605 Environmental Statistics

A hands-on, computer lab-intensive course on basic statistical methods used in environmental pollution monitoring. Emphasizes environmental statistics as a physical science, not just as a mathematical science.
Prerequisites: MAT 1191 (minimum grade C) or equivalent.

## 7607 Environmental Sampling

Following lectures on sampling requirements and techniques, students sample groundwater, surfacewater, drums, sediments, soil, and air.
Prerequisites: None.

## 7608 OSHA-40 Hour Course

3-3-4
Students complete the OSHA-specific requirements under 29 CFR 1910.120 for 40-Hour Hazardous Waste Site Training, and receive a certificate of training upon successful completion. Topics include: how to avoid injury on an uncontrolled hazardous waste site, and the basis for health and safety programs.
Prerequisites: None.

## 7609 Fundamentals of Industrial Hygiene

3-2-4
An overview of the principles of industrial hygiene. Topics include: techniques for recognizing, evaluating, and controlling health and safety hazards in the workplace; radiation safety; noise; solvents; biological hazards; and video display terminal hazards.
Prerequisites: None.

## 7610 Radiation Safety

3-2-4
An introduction to radiation safety and protection principles. Topics include: the interaction of radiation with matter, radiation's biological effects and types of radioactivity, dosimetry, radiation protection criteria, shielding calculations and radiation measurement. Prerequisites: None.

7611 Risk Assessment in Environmental Management 3-0-3 A course on how risk assessment is used for solid waste management, hazardous waste/superfund sites, water and wastewater, and biological and ecological issues. Real-world case studies illustrate the risk assessment process.
Prerequisites: None.

7612 Environmental Microbiology
3-3-4
A course on microbiology of air, solid and hazardous waste, soil, water, and wastewater. Topics include: genetically engineered microbes; bioremediation; microbial disinfection; microbes as indicators of pollution; and analysis of water and wastewater, soils, solid waste, and aerosols.
Prerequisites: EVS 7622 or BIO 4072.

## 7613 Environmental Surveying \& Drafting

3-3-4
An introductory course in field measurement techniques and surveying drafting. Topics include: contour maps, cross sections, grading plans, volume calculations, and boundary plats. Prerequisites: None.

## 7614 Basic Mechanics of Fluids

3-3-4
Topics include: engineering properties of fluids including fluid flow, buoyancy, and stability; Bernoulli's equation and the energy equation; Reynold's number; energy losses; and series, parallel, and open channel flow. Students use lab time for problem solving, experimentation, and field applications.
Prerequisites: MAT 1192 or MAT 1173, PHY 2291 or PHY 2295. Corequisites: MAT 1154, PHY 2292.

## 7616 Environmental Chemistry

2-3-3
A course on chemical principles of environmental systems. Topics include: the applications of chemical instrumentation such as gas chromatography, liquid chromatography, and atomic absorption to environmental measurements in air, water, wastewater, and solid waste.
Prerequisites: CHE 2232 or CHE 2253 or CMT 6631.

## 7617 Environmental Mountain Ecology 1

2-0-2
Topics include: principles of ecology and pollutant dispersion as they pertain to mountain ecosystems and environmental impact of human activities.
Prerequisites: EVS 7623 or EVET 7607.
7618 Environmental Mountain Ecology 2
0-6-2
A continuation of EVET 7617. An intensive field experience that includes a trip to the mountainous regions of the western United States. Students pay for the trip.
Prerequisites: EVET 7617.

## 7640 Introduction to the Wastewater Industry

A introduction to the wastewater industry. Topics include:
terminology; physical, biological, and chemical units used in calculations; current issues; environmental and human health issues; and scientific and engineering principles and applications. Prerequisites: None.

## 7643 Calculations for Water Treatment Operators 2-3-3

A course on calculations for water treatment applications. Topics include: applied volume, flow and velocity, chemical dosage, loading rates, detention and retention, pumping, mathematical applications for water treatment plant processes, including water sources and storage, coagulation and flocculation, sedimentation, filtration, chlorination, fluoridation, softening, and laboratory basics. Prerequisites: MAT 1191.

7644 Calculations for Wastewater Operators
2-3-3
Topics include: the calculation of volumes, flow and velocity, conversions, pumping rates, loading rates, $\mathrm{F} / \mathrm{M}$ ratio, sludge age, MCRT, and efficiency and percentage calculations. Prerequisites: MAT 1191.

# EVET - Environmental Engineering Technology EVS - Environmental Engineering Technology 

7646 Water \& Wastewater Technology
3-2-4
A course on scientific and engineering principles and applications in water quality control. Topics include: concepts and practices in the treatment of industrial and domestic wastewater before discharge to either municipal POTW or the environment, and principles and design of physical, chemical, and biological units in the treatment plant.
Prerequisites: CHE 2200 or CHE 2231.

## 7647 Collection \& Distribution Systems

2-3-3
An introduction to operating and controlling water delivery and wastewater collection systems. Topics include: gravity and pumped lines; storage and holding tanks; pumps; system monitoring, repair, and rehabilitation; water system depressurization, back-flow prevention, and metering; wastewater system sewer overflows; and gaseous buildup.
Prerequisites: EVET 7614.

## 7648 Utilities Safety \& Security

 3-2-4A course on the nation's utility systems. Topics include: drinking water safety and security, wastewater treatment facilities, and energy suppliers.
Prerequisites: EVET 7646 or Class I Operator's License.

## 7670 Regulations \& Permits

2-3-3
An introduction to federal, state, and local environmental laws with emphasis on related computer applications. Topics include: TSCA, FIFRA, OSHA, CAA, CWA, SDWA, CERCLA, and RCRA. Students write a research paper and give a presentation using appropriate software.
Prerequisites: None.

## 7671 Air Pollution Control

3-3-4
A course on permitting and control of air releases. Topics include: air quality management, health and environmental effects, indoor air pollution, pollen and mold counts, control and sampling equipment, stack testing, and data analysis.
Prerequisites: None.

## 7672 Advanced Sampling \& Analysis

A continuation of EVET 7607. Topics include: sampling equipment and methods used to evaluate hazards after natural disasters such as hurricanes, floods, tornadoes, and equipment and instruments used to detect biological and chemical warfare agents.
Prerequisites: EVET 7607, EVET 7612.

## 7675 Solid Waste Management

An introduction to the solid waste problem. Topics include: various methods and basic design concepts of solid waste disposal techniques, landfills, incineration, composting, recycling, and emerging technologies in this field.
Prerequisites: None.

## 7676 Hazardous Waste Management

2-3-3
Topics include: the origin of hazardous materials and their impact on humans, plants, and animals; principles and practices in the sampling, storage, transport, treatment, and disposal of hazardous wastes; and governmental regulations and permits pertaining to hazardous wastes.
Prerequisites: None.

## 7677 Treatment Technologies

2-3-3
An overview of the basic principles and applications of mainstream treatment and monitoring technologies used to prevent, monitor, and control pollution by industries and government agencies. Topics include: physical, chemical, and biological treatment methods. Prerequisites: CHE 2231.

## 7680 Environmental Regulations for

Fire Science Technology
1-3-2
An introduction to federal, state, and local environmental laws and ordinances controlling waste disposal, wastewater discharge, air releases, and hazardous materials handling, storage, transport, and disposal. Regulations covered include: TSCA, FIFRA, OSHA, CAA, CWA, SDWA, CERCLA, RCRA and HMTA.
Prerequisites: None.
7681 Advanced Environmental Risk Assessment 3-3-4
A course that utilizes risk assessment methods to evaluate and manage danger in the event of chemical, biological, or radiological exposure. Topics include: Operational Risk Management approaches, and understanding toxicological values.
Prerequisites: EVET 7671, EVET 7676.
7682 Materials Transportation Safety and Security 3-0-3
A course on safety and security during the transport of hazardous substances and other materials in the United States. Topics include: The Hazardous Materials Transportation Act of 1975 (HMTA), The Resource Conservation and Recovery Act (RCRA), The Transportation Security Administration (TSA), aviation security policies and procedures, and shipping protocols including hazardous waste manifests.
Prerequisites: None.

## 7683 Environmental Impact of Weapons of Mass Destruction

A course that describes weapons of mass destruction and recovery following an attack. Topics include: chemical and biological warfare agents, Radiation Dispersal Devices, and the detection, decontamination, and disposal of these agents.
Prerequisites: EVET 7612.
7699 Special Problems Seminar - Environmental Var-Var-Var Individual and independent study and special projects pertaining to the particular program in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College or with a specific problem found in the industry in which the student is employed. Students must make special arrangements with the instructor and program chair. Prerequisites: Program chair consent.

## EVS Environmental Engineering Technology

7622 Environmental Science:
Conservation and Clean-up
3-2-4
A course on the fundamentals of environmental science as it pertains to human activity and the resulting environmental impact. Topics include: conservation, water treatment, air pollution control, energy, and solid and hazardous waste management issues. Prerequisites: None.

## 7623 Environmental Geology

An introduction to the relationship of applied geology to the human environment. Topics include: an overview of geologic concepts and terminology, groundwater hydrogeology, human responsibility to protect these resources from contamination, the geologic aspects of environmental health, land use practices, and resource exploitation. Prerequisites: CHE 2200 or high school equivalent.

7624 Environmental Science: Ecology and Ecosystems 3-2-4 A course on fundamental principles of environmental science and ecology. Topics include: the types of ecosystems and how they function, elementary soil science, biodiversity, and issues of population growth and sustainability.
Prerequisites: None.

## FIN - Finance <br> FRN - French <br> FST - Fire Service Technology <br> FIN Finance

## 1804 Risk \& Insurance <br> 3-0-3

A course on the concept of risk in the business enterprise. Topics include: the need for insurance protection against risks in areas of property and liability, casualty, fire, life, and health; fundamentals of insurance contracts; and selecting insurers.
Prerequisites: None.

## 2960 Business Finance

3-0-3
An introduction to financial institutions, markets, and management. Topics include: the U.S. financial system and how business uses this system to finance operations for short, intermediate, and long terms.
Prerequisites: ACC 2912 or ACC 2926.

## 2961 Personal Finance <br> 3-0-3

A course on coordinated, realistic, personal financial planning Topics include: buying insurance, homes, and investment property; accumulating capital; retirement planning; estate planning; and individual and investment tax planning.
Prerequisites: None.

2962 Principles of Investments 1
3-0-3
A course on the role and scope of investments in the economy. Topics include: investment markets and transactions, online investing information and trading, investment return and risk, modern portfolio concepts, common stock valuation, and trading decisions. Prerequisites: FIN 2960.

## 2968 Principles of Investments 2

3-0-3
A continuation of FIN 2962. Topics include: bond investments, preferred stock and convertible securities, mutual funds, portfolio administration, options, and futures.
Prerequisites: FIN 2962 or program chair consent.
2976 Financial Institutions
3-0-3
A course on the services, pricing techniques, goals and objectives, management styles, internal problems and risks, and markets in which financial institutions operate.
Prerequisites: None.

## FRN French

1060 Elementary French 1
4-0-4
An introduction to the French language providing the foundation for understanding, speaking, reading, and writing French. Topics include: fundamentals of French intonation, grammar, and syntax. Laboratory work may be required.
Prerequisites: None.

1061 Elementary French 2
4-0-4
A continuation of FRN 1060 providing the foundation for understanding, speaking, reading, and writing French. Topics include: fundamentals of French intonation, grammar, and syntax and more advanced readings. Laboratory work may be required. Prerequisites: FRN 1060 or one year of high school French or equivalent.

## 1062 Elementary French 3

A continuation of FRN 1061 providing the foundation for understanding, speaking, reading, and writing French. Topics include: fundamentals of French intonation, more complex grammar and syntax, advanced readings, and basic composition. Laboratory work may be required.
Prerequisites: FRN 1061 or two years high school French or equivalent.

1063 Intermediate French 1
4-0-4
A review and extension of basic principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and short literary pieces. Laboratory work may be required.
Prerequisites: FRN 1062 or three years high school French or equivalent.

1064 Intermediate French 2
4-0-4
A continuation of FRN 1063 providing review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: FRN 1063 or equivalent.

1065 Intermediate French 3
4-0-4
A continuation of FRN 1064 providing review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: FRN 1064 or equivalent.

## FST Fire Service Technology

## 4740 Fire Service Small Engines

A course that covers the basic operation, service, and maintenance of various gasoline and diesel powered equipment used on the fire ground. Topics include: two and four cycle start-up and shut-down procedures, scheduled maintenance, troubleshooting, and minor repairs.
Prerequisites: None.
4741 Invisible Dangers in the Fire Service
3-1-3
An introduction to atmospheric monitoring equipment. Topics include: selection, use, and maintenance of monitoring equipment, specialized equipment used with hazardous materials, WMD, terrorist incidents, research materials, and field experience. The course and materials meet NFPA 471 and NFPA 472 standards. Prerequisites: FST 4784 (minimum grade C).

## 4742 Fire Alarm Basics

3-0-3
A course on basic knowledge of fire alarm systems. Topics include: components of a basic system, operation and application of systems, building codes, and regulatory standards. Prerequisites: None.

4743 Fire Instructor 1 and 2
5-2-6
A course that prepares students as fire instructors, in compliance with NFPA 1041, Professional Qualifications for Fire Instructor. Students must have five years experience as a firefighter to take this course. Topics include: preparing and implementing lesson plans, and selecting and using training aids.
Prerequisites: FST 4784 (minimum grade C).

## 4745 Fire Officer 2

A course that prepares students for NFPA 1021 Fire Officers Professional Qualifications Level 2. Topics include: human resource management in the fire service, community and government relations, inspections, investigations, emergency service delivery and safety.
Prerequisites: FST 4786 (minimum grade C).

4746 Fire Officer 3
4-0-4
A course that prepares students for NFPA 1021 Fire Officers Professional Qualifications Level 3. Topics include: human
resource management in the fire service, community and government relations, inspections, investigations, emergency service delivery and safety.
Prerequisites: FST 4745 (minimum grade C).

## 4747 Fire Behavior and Combustion

3-0-3
A course that explores the theories and fundamentals of how and why fires start and spread and how they are controlled.
Prerequisites: None.

## 4748 Principles of Emergency Services

3-0-3
A course exploring fire protection as an industry. Topics include: philosophy and history of fire, the fire department as part of the local government, protection systems, regulations, laws, and an introduction to fire ground strategy and tactics.
Prerequisites: None.

## 4749 Home Safety

0-2-1
A course that identifies common hazards that place individuals and families at a potential risk for injury and/or crisis. Topics include: fire safety, health hazards, general home safety tips, and child safety. Prerequisites: None.

## 4750 Portable Fire Extinguisher Training

0-1-1
A course that explores the elements of fire and fire extinguishing.
This is a hands-on course for anyone wishing to learn how to use a fire extinguisher. Topics include: the four elements needed to support a fire, types of fires, fire extinguisher demonstration and hands-on practice for quick and efficient extinguishment of class $A$, B, and C type fires.
Prerequisites: None.

## 4760 Fire Cadet Basic Training

A course that prepares new students for fire training. Topics include: CPR for the Health Care Provider, drill and ceremony, self-discipline, personal safety, HIPAA, professional qualifications of the firefighter, radio communications, NFPA 1500, and the Incident Management System.
Prerequisites: Successful completion of Fire Cadet Fitness Evaluation.

## 4761 Fire Cadet Preparatory Fitness

0-2-1
A course for students who performed inadequately during the Fire Cadet Fitness Evaluation. A comprehensive fitness program, following standards developed by The Coopers Institute of Physical Fitness for Public Services, designed to improve individual physical and cardiovascular fitness.
Prerequisites: Failure to achieve a passing score on the Fire Cadet Fitness Evaluation.

## 4772 Fitness for Fire Service Professionals

0-3-1
An exercise course pertaining directly to the fire service. Topics include: avoiding common fire service injuries, absolute and dynamic strength training, aerobic/cardiovascular training, flexibility, and exercises specific to the fire service.
Prerequisites: Successful completion of Fire Cadet Fitness Evaluation.

## 4773 Volunteer Firefighter 2-2-3

An introduction to the essentials of firefighting following NFPA
1001 standards. Topics include: basic equipment and procedures pertaining to fire control and suppression. State certification is available.
Prerequisites: None.

4774 Firefighter Transition
4-4-5
A course on the concepts of firefighting strategies and tactics following NFPA 1001 standards. Topics include: HAZMAT and fire cause, prevention, suppression, salvage and overhaul. This course is a transition from FST 4773 Volunteer Firefighter to FST 4784 Firefighter 2. State certification available.
Prerequisites: FST 4773 (minimum grade C).
4775 Firefighter Agility Skills
1-2-2
A course on preparing for competitive agility skills testing required for entry into fire service.
Prerequisites: FST 4772, FST 4783 (minimum grade C for both).
4776 Thermal Imaging for Fire $\mathbf{1 - 2 - 2}$
A course on using thermal imaging to increase firefighter safety and the probability of finding lost or trapped victims. Students use infrared equipment and techniques.
Prerequisites: None.
Corequisites: FST 4783.
4777 Emergency Vehicle Safety and Maintenance 1-2-2
A course on routine safety and maintenance of emergency vehicles. Topics include: procedures and practical experience necessary for maintaining optimal vehicle performance and safety.
Prerequisites: FST 4784 (minimum grade C).
4778 Fire Service Rapid Intervention Techniques
1-2-2
A course on concepts of firefighter safety during fire-ground activities. Prerequisites: FST 4784 (minimum grade C).

4779 Fire Service Engine/Pump Operation
2-2-3
A course on theory and operation of engines and pumpers used in firefighting, including equipment operation demonstration and practice.
Prerequisites: FST 4777, FST 4784 (minimum grade C for both).
4780 Firefighting Strategies and Tactics
A course on firefighting methods and best practices. Topics include: the incident command system, benchmarking, and outcomes. Students review large fire case studies.
Prerequisites: FST 4784 (minimum grade C).
4783 Career Firefighter 1
6-6-8
The first part of a two-part career firefighter course for students seeking an Ohio Firefighter II certificate. Topics include: fire prevention, ventilation, ladders, fire suppression, salvage, overhaul, and building construction.
Prerequisites: FST 4760 (minimum grade C) or instructor consent.
4784 Career Firefighter 2
6-6-8
The second part of a two-part career firefighter course for students seeking an Ohio Firefighter II certificate. Topics include: HAZMAT, vehicle extrication, foam firefighting, alarm systems, fire control, and fire company operations. Students are eligible to take the Ohio Firefighter II Exam after successfully completing this course. Prerequisites: FST 4783 (minimum grade C).

4785 Law and Emergency Service Providers 3-0-3
A course that explores legal issues regarding emergency services.
Topics include: disciplinary hearings, collective bargaining agreements, background checks, and court decisions involving current issues such as do not resuscitate orders, duty to act, sexual harassment, and Americans With Disabilities Act.
Prerequisites: None.

# FST - Fire Service Technology <br> FYE - First Year Experience <br> GC - Graphic Communications 

## 4786 Fire Officer 1 <br> 4-0-4

A course that prepares students as company officer as defined by the NFPA 1021 Fire Officers Professional Qualifications Level One. Topics include: human resource management, community and government relations, inspections, investigations, emergency service delivery, and safety.
Prerequisites: FST 4743 (minimum grade C).

## 4787 Building Construction for Fire Protection 1 <br> 2-0-2

A course that explores building construction as it relates to fire and life safety. Topics include: lightweight truss and joist fatigue, alternative building materials, classification of structures, and safety concerns during emergency operations.
Prerequisites: FST 4784 (minimum grade C).
4788 Building Construction for Fire Protection 2 2-0-2
A continuation of FST 4787. Topics include: building and scene assessment, fire inspections, preplanning, and fire mitigation concerns.
Prerequisites: FST 4787 (minimum grade C).

## 4789 Firefighter Internship

A course in which students are assigned to a designated fire department mentor and participate in activities such as house duties, equipment checks, classroom training, and drills.
Prerequisites: FST 4783 (minimum grade C).

## 4790 Firefighter Self Rescue

A course that uses classroom instruction, demonstrations and practice to teach firefighters how to help themselves when their lives are at risk on the fire ground.
Prerequisites: FST 4784 (minimum grade C).

## 4791 Fire Safety Inspector

6-3-7
A course in which students complete classroom and practical exercises in basic fire safety inspection procedures and responsibilities. This course meets requirements prescribed in House Bill 590 and NFPA 1031. Students must be members of a fire department. Prerequisites: FST 4784 (minimum grade C).

4792 Fire Service Blueprint Reading
2-2-3
An introductory course that explores architectural and civil engineering symbols and abbreviations used on drawings. Topics include: various systems utilized in buildings including water, fire protection, mechanical devices, and electrical systems including power distribution through lighting systems.
Prerequisites: None.

## 4793 Evolution of the Fire Service

2-0-2
A course on the growth of the fire service from its creation through the 21 st century. Topics include: changes in suppression methods, building codes, and rescue techniques; administrative philosophies; and personnel behaviors.
Prerequisites: None.

## 4798 Special Studies- FST

Var-Var-Var
Special projects pursued by certified firefighters seeking college credit in the Fire Service Technology degree program. Before registration, students must have the plan of study approved by the supervising faculty member and the Dean of Health and Public Safety. Students receive grades of $S$ or $U$ for this course. Prerequisites: None.

## 4799 Special Studies-FST

Var-Var-Var
Study of special projects pursued by certified firefighters seeking college credit in the Fire Service Technology degree program.

Students must have the plan of study approved by the supervising faculty member and the Dean of Health and Public Safety. Prerequisites: None.

## FYE First Year Experience

## 9002 College Survival Skills

1-0-1
A course that introduces students to Cincinnati State, the College's resources, and its expectations for new students. Topics include: making a successful transition to college life, study skills and time management, library skills, advising and registration, academic financial planning, co-op/clinical opportunities, students' rights and responsibilities, and how to read a college catalog. This course earns college credit, but it does not fulfill general studies or core course requirements for degree or certificate programs. This course must be completed within the first 18 credit hours taken at Cincinnati State.
Prerequisites: None.

## 9003 The Community College Experience

An orientation course that helps students make a successful transition to college life. Topics include: study skills and time management; academic and financial planning; campus resources; diversity issues; interpersonal communication; health and wellness; career and personal goal setting. This course earns college credit, but it does not fulfill general studies or core course rquiremenhts for degree or certificate programs. This course must be completed within the first 18 credit hours taken at Cincinnati State. It can be substituted for FYE 9002.
Prerequisites: Advisor consent.

## GC Graphic Communications

1403 Computer Graphics for Printing 1
2-3-3
An introduction to page layout using various software applications.
Topics include: simple layouts, printer's measurement system,
typographic concepts, color selection, and generating artwork
using paint applications, scanners, and the Internet. Emphasizes production for the high-end press environment.
Prerequisites: None.

## 1410 Graphic Design Production

2-3-3
A course on preparing art for digital and industrial printing
processes including lithography, flexography, gravure, and screen. Prerequisites: IT 5443, IT 5444, and IT 5456 or GC 1423.

## 1415 Graphic Arts Processes

2-3-3
A course on evaluating printing processes including: lithography, flexography, screen, gravure, and letterpress. Lab projects involve basic training in prepress and presswork, and demonstrations of flexographic and screen printing procedures.
Prerequisites: None.
1419 Survey of Printing Inks
3-0-3
A course on the physical characteristics of ink and the manufacturing process for different types of ink used in the printing industry.
Topics include: how ink components affect color, drying properties, substrates, and cost.
Prerequisites: None.

1421 Computer Graphics for Printing 2
2-3-3
A continuation of GC 1403. Topics include: advanced QuarkXPress, introduction to drawing and image editing applications, methods of scanning graphics and text, resolution of files and devices, and essential hardware for the prepress environment.
Prerequisites: GC 1403.

## 1423 Adobe InDesign

An introduction to using Adobe InDesign desktop publishing software to create basic print documents. Techniques include: master pages, importing text and graphics, color, swatches and gradients, formatting type, transparency, using tables and preparing for handoff for print production or creating PDF files.
Prerequisites: None.

## 1425 Film and Plates for Packaging

1-4-3
A course on the fundamentals of using a step and repeat camera. Topics include: the proper darkroom procedure necessary to produce film(s) used to make photopolymer printing plates, and basic operation of a flat bed, solvent-based photopolymer platemaking system.
Prerequisites: GC 1421.

## 1426 Packaging and Advertising Processes

A course on how packages are created for advertising. Topics include: developing and evaluating the many packaging options for advertising processes such as lithography, flexography, and gravure; corrugated and plastic packaging technology; and digital-on-demand presses for the packaging industry.
Prerequisites: None.
1429 Screen Printing 2-6-4
A course on using and operating manual and semi-automatic screen printing presses. Topics include: fundamentals of printing frames, mesh, emulsions, stencils, squeegees, and inks and printing on many substrates and odd-shaped objects.
Prerequisites: GC 1421.

## 1430 Label and Packaging Presswork 1

1-7-4
A course on operating four-color narrow web flexographic presses and handfed and automatic platen letterpresses. Topics include: using this equipment to print, perforate, score, diecut, number, emboss, and foil stamp; an introduction to flexographic cameras; platemaking; and operating a flexo press.
Prerequisites: GC 1421.

## 1431 Label and Packaging Presswork 2

A continuation of GC 1425 and GC 1430, emphasizing operating a four-color seven-inch Comco narrow web flexo press. Topics include: in-line diecutting, laminating, perforating and slitting pres-sure-sensitive substrates, and using water-soluble and UV inks. Prerequisites: GC 1421, GC 1430, GC 1425.

## 1439 Introduction to Offset Presswork

A course on sheetfed offset printing. Topics include: comparison of wet and dry forms of lithography; plate comparisons including presensitized, bi-metal, and grainless synthetics; the adjustments necessary for quality printing; and using pressroom and plate equipment.
Prerequisites: None.

## 1440 Offset Presswork

A course on advanced sheetfed and webfed offset printing. Topics include: color consistency, controlling dot gain and slur, plugging halftones, maintaining the ink and dampening systems for high quality printing. Includes demonstration of Advanced Quality Control production devices that produce top notch printing quality. Prerequisites: GC 1415 and GC 1439, or equivalent knowledge.

## 1449 Printing Estimating 1

2-3-3
A course on determining job cost with an emphasis on paper used in sheet-fed offset and flexographic printing. Students use formulas to calculate impositions and the most cost effective printing
methods, including ink, spoilage, and quality.
Prerequisites: None.
1450 Printing Estimating 2
2-3-3
A continuation of GC 1449. Topics include: an in-depth determination of job cost including labor, materials, burden, profit, and mark-up; characteristics and types of paper; paper sizes; selection process; proper cuts from mill size sheets; and use of manufacturer's catalogs and price books.
Prerequisites: GC 1449.
1451 Print Media Workflow
A continuation of GC 1449. Topics include: computerized printing estimating, computer-assisted scheduling and management information systems, web-to-print, and bidirectional links to workflow and file processing in a color managed environment. Students learn new web-based job viewing and tracking benefits to improve workflows.
Prerequisites: GC 1449.
1480 Digital Photography \& Imaging 1
1-4-3
A course on digital photography and how to capture quality images with a hand-held or studio digital camera. Topics include: proper lighting, detail, and color balance; and storing images for other processes. Students print images on a digital press.
Prerequisites: None.

1481 Computer Graphics for Printing 3
A continuation of GC 1421, emphasizing desktop publishing, illustration, and image editing software for high-end production processes. Topics include: file construction for various end uses, resolution of files and devices, trapping techniques, retouching, preflighting, and color separations.
Prerequisites: GC 1421.
1483 Computer Graphics for Printing 4 2-3-3
A continuation of GC 1481. Topics include: advanced desktop publishing concepts; illustration and image editing software; color correction, separations, proofing, UCR, and GCR; advanced trapping concepts using TrapWise; Preps imposition software; and creating PDF files using Adobe Acrobat.
Prerequisites: GC 1481.

1484 Commercial Portfolio Production
1-0-1
A course on building a portfolio that represents students' work.
Students learn to present samples of creative work to a prospective employer or client in different formats including traditional
portfolios to digital presentation. Students must provide samples of their work.
Prerequisites: None.
1490 Digital Photography \& Imaging 2 1-4-3
A continuation of GC 1480. Topics include: advanced lighting techniques, configuring camera for proper exposure and resolution, manipulating images with Adobe Photoshop, quality color, and reproducing images on digital printers or high resolution digital presses.
Prerequisites: GC 1480.
9223 Cooperative Education - Graphics
1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the GC program, 2.0 minimum GPA.

GC - Graphic Communications<br>GEO - Geography<br>GRM - German

9243 Cooperative Education Graphics - Parallel 1-20-1
Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the GC program, 2.0 minimum GPA.

## GEO Geography

1551 World Regional Geography 1 3-0-3
A study of the characteristics and differences of the major world regions. Topics include: the concepts used to study regional geography and the cultural, economic, political, historical, and physical characteristics of Anglo-America, Latin America, Western Europe, Eastern Europe including Russia and the Baltic States, and Australia/New Zealand.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS scores.

## 1552 Cultural Geography

3-0-3
A survey of diverse human customs and world patterns of culture. Emphasizes differences in land, language, religions, and political systems. Topics include: ethnicity, population practices, territoriality, the seeking of security and nourishment, resource use, and commonalities among peoples.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS scores.

## 1553 World Regional Geography 2

3-0-3
A continuation of GEO 1551. Topics include: the concepts used to study regional geography and the cultural, economic, political, historical, and physical features of Sub-Saharan Africa; the Middle East and North Africa; East Asia including Japan and South Asia, and Southeast Asia.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS scores.

## GRM German

## 1070 Elementary German 1

4-0-4
An introduction to the German language providing the foundation for understanding, speaking, reading, and writing German. Topics include: fundamentals of German intonation, grammar, and syntax. Laboratory work may be required.
Prerequisites: None.

## 1071 Elementary German 2

4-0-4
A continuation of GRM 1070 providing the foundation for understanding, speaking, reading, and writing German. Topics include: fundamentals of German intonation, grammar, and syntax and more advanced readings. Laboratory work may be required. Prerequisites: GRM 1070 or one year high school German or equivalent.

## 1072 Elementary German 3

4-0-4
A continuation of GRM 1071 providing the foundation for understanding, speaking, reading, and writing German. Topics include: fundamentals of German intonation, more complex grammar and syntax, advanced readings, and basic composition. Laboratory work may be required.
Prerequisites: GRM 1071 or two years high school German or equivalent.

## 1073 Intermediate German 1

4-0-4
Review and extension of basic principles of grammar and syntax through composition and conversation, stressing fluency. Introduces more advanced reading, composition, and short literary pieces. Laboratory work may be required.

Prerequisites: GRM 1072 or three years high school German or equivalent.

## 1074 Intermediate German 2

4-0-4
A continuation of GRM 1073 providing review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: GRM 1073 or equivalent.
1075 Intermediate German 3
4-0-4
A continuation of GRM 1074 providing review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: GRM 1074 or equivalent.

## HFT Health and Fitness Technology

4058 Advanced Life Saving 1-2-2
Instruction in life saving techniques that meet the American Red
Cross life saving certificate requirements.
Prerequisites: Deep water swimming ability and 500 yard
continuous swim.
4060 Water Safety Instructor Certification
1-2-2
Instruction in practice of approved techniques. Meets qualifications for American Red Cross certification.
Prerequisites: HFT 4058 (minimum grade C).
4098 Special Studies in Health and Fitness Var-Var-Var
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member, and carried on outside the classroom. Before registration, students must have a plan of study approved by a supervising faculty member and the Dean of Health and Public Safety.
Prerequisites: None.

## 4120 Foundations of Aromatherapy

2-2-3
Topics include: aromahistory with a focus on ancient cultures, profiles of essential oils, production and quality of essential oils, basic physiology, physical and emotional effects, healing oils, and contraindications.
Prerequisites: None.
4121 Fundamentals of Pilates Mat
2-2-3
The first class of a three-term Pilates Mat certificate program that prepares students for the National Pilates Mat Certification
Examination. Topics include: principles of Pilates, terminology, basic order of mat exercises, postural analysis and transitions, and modification for the flow of Pilates.
Prerequisites: None.
4122 Reiki: First and Second Degree
0-2-1
This course exposes the student to Level 1 and Level 2 in Reiki.
Topics include: history, concepts, hand positions, and the practice of Reiki as a healing tradition.
Prerequisites: None.

## 4123 Pilates Mat Instructor

2-2-3
A course that prepares students for the National Pilates Mat Certification Examination. Topics include: intermediate Pilates mat series, communication skills, educational principles, safety guidelines, and modifications for special populations.
Prerequisites: HFT 4121 (minimum grade C).

4124 Pilates Mat Practicum
1-5-2
Students apply Pilates knowledge and skills to a health and fitness setting. Topics include: observation and assisting in a class taught by certified Pilates instructors, designing Pilates routines, and teaching beginner and intermediate Pilates mat classes.
Prerequisites: HFT 4123 (minimum grade C).

## 4141 Fundamentals of Yoga

An introduction to the practice of Sadhana Yoga Chi, Astanga-Vinyasa and hard and soft form style variations. Topics include: basic postures (asanas), breathing techniques (pranayamas), meditation, relaxation, and yogic philosophy. Prerequisites: None.
Corequisites: HFT 4142, HFT 4143.

## 4142 Yoga Teaching Methodology

1-2-2
Students learn principles of yoga class instruction through demonstration, observation, assisting, and correcting. Topics include: teaching styles, Soft Vinyasa and Power Vinyasa variations, qualities of a yoga instructor, and client learning styles. Prerequisites: None.
Corequisites: HFT 4141, HFT 4143.

## 4143 Building a Personal Yoga Sequence

A laboratory experience in which students learn to develop and sustain a personal yoga sequence.
Prerequisites: None.
Corequisites: HFT 4141, HFT 4142.
4144 Yoga Techniques \& Practices 1
1-4-3
Training in the practice of basic postures, breathing and cleansing techniques, chanting, meditation, and hands-on adjustments using Soft Vinyasa and Power Vinyasa sequences.
Prerequisites: HFT 4141, HFT 4142, HFT 4143 (minimum grade C). Corequisites: HFT 4145, HFT 4148.

## 4145 Anatomy of Hatha Yoga

Students learn the physical anatomy and physiology of yoga
postures (bodily systems, muscles used and physical benefits of yoga) and subtle anatomy and physiology such as chakras (energy centers) and nadis (energy channels).
Prerequisites: HFT 4141, HFT 4142, HFT 4143 (minimum grade C). Corequisites: HFT 4144, HFT 4148.

## 4146 Yoga Techniques \& Practices 2

1-4-3
Training in the practice of intermediate and advanced postures, breathing and cleansing techniques, chanting, meditation, and hands-on adjustments using Soft and Power Vinyasa sequences. Prerequisites: HFT 4144 (minimum grade C).
Corequisites: HFT 4149.

## 4147 Philosophy \& Ethics of Yoga

2-0-2
The study of yogic philosophy, yoga sutras, ethics for yoga instructors, and karma yoga. Topics include: philosophy from Patanjali as well as other styles and traditions of yoga.
Prerequisites: HFT 4146 (minimum grade C).
Corequisites: HFT 4150.

## 4148 Yogic Nutritional Lifestyle

2-0-2
The study of healthy living through the yogic tradition. Topics include yogic nutrition, raw food preparation, and recipes. Offsite field trips may be required for this course.
Prerequisites: HFT 4142, HFT 4143 (minimum grade C).
Corequisites: HFT 4144, HFT 4145.

4149 Yoga Practicum 1
1-5-2
Students apply knowledge and skills in a health and fitness setting. Includes observation, assisting with beginner classes, and teaching beginner classes and beginner Soft Vinyasa and Power Vinyasa sequences.
Prerequisites: HFT 4144 (minimum grade C).
Corequisites: HFT 4146.
4150 Yoga Practicum 2
1-5-2
Students transform knowledge and skills in yoga to a health and fitness setting. Includes observation and assisting in intermediate classes taught by certified yoga instructors, designing yoga sequences, and teaching beginner and intermediate yoga routines. Prerequisites: HFT 4149 (minimum grade C).
Corequisites: HFT 4147.

4151 Herbology
2-0-2
An introduction to herbal preparations and their effects on the human body. Topics include: herbs, herbal preparation, and physiological effects.
Prerequisites: None.

## 4152 Journaling

2-0-2
A course that focuses on using journaling to empower students to process and reduce stress. Topics include: journaling definition and techniques, the stress response, physiological effects of stress, and the impact of journaling on stress.
Prerequisites: None.
4153 Foundations of Exercise Science
3-2-4
An introduction to the human body's response and adaptation to exercise and physical training. Laboratory experiences include testing and measurement related to exercise and fitness.
Prerequisites: BIO 4073 (minimum grade C).

## 4154 Journaling 2

2-0-2
A continuation of HFT 4152. Students focus on techniques to assist them in identifying and clarifying personal objectives. Topics include: developing personal vision statements and successfully dealing with obstacles.
Prerequisites: HFT 4152.
4160 Fundamentals of Aerobics
2-2-3
A course that combines stretches, aerobics, step aerobics, and resistive exercises to promote cardiorespiratory endurance and enhance strength and flexibility. Topics include: exercise and its effects on the body.
Prerequisites: None.
4161 Health and Fitness Practicum
1-13-2
A practicum in a health and fitness setting. Students gain in-depth experience in transforming health and fitness knowledge and skills into a practice setting.
Prerequisites: Completion of at least one of the four regular HFT certificate programs.

## 4162 Fundamentals of Water Aerobics

2-2-3
Introduction to aquatic exercise techniques and principles for those pursuing aquatic group instructor status. Classroom emphasis is on the effects of water on the body. Lab includes classes in the aquatic environment.
Prerequisites: None.
4163 Foundations of Health and Fitness
2-2-3
A course on developing fitness and wellness programs for individuals and groups, emphasizing health promotion and disease

## HFT - Health and Fitness Technology

prevention.
Prerequisites: None

## 4164 Developing Exercise Prescriptions

A course on developing and implementing exercise prescriptions for healthy adults and special populations. Topics include: developing programs for health related, fitness related, and performance related criteria emphasizing safe, effective, and efficient goal achievement.
Prerequisites: HFT 4169 (minimum grade C).

## 4165 Group Fitness Instructor

Prepares students for the National Group Fitness Instructor Examination. Topics include: communication skills, education principles, effective exercise design, choreography, safety guidelines and modifications for special populations. Lab includes conducting classes in traditional and step aerobics.
Prerequisites: HFT 4160 (minimum grade C).

## 4166 Aquatic Group Fitness Instructor

2-2-3
A course that prepares students for the national Aquatic Instructor Examination. Topics include: communication skills, educational principles, effective exercise design, fundamentals of water properties, choreography, safety guidelines, and modifications for special populations. Lab includes classes in the aquatic environment. Prerequisites: HFT 4162 (minimum grade C).

## 4167 Aquatic Personal Trainer

1-2-2
An intermediate course for the candidate with experience as a personal trainer or in the aquatic fitness industry. Emphasizes practical application skills needed for aquatic personal trainers. Prerequisites: Personal Fitness Trainer Certificate or a nationally accredited PFT certification.

## 4168 Aquatic Leadership and Development

1-2-2
An advanced course on developing and reinforcing instructor skills and techniques essential to design, implement, and lead various aquatic group exercise programs.
Prerequisites: HFT 4162, HFT 4166, HFT 4167, and EMS 4730 (minimum grade C).

## 4169 Fitness Assessment

A course on health related fitness assessment tools and skills.
Topics include: choosing assessment protocols and administering fitness assessments to healthy adults and to special populations. Students practice assessment skills through lab and outside experiences.
Prerequisites: None.
4170 Personal Fitness Trainer 1
An introduction to techniques used in the fitness field. Topics include: screening and consultation guidelines, dietary and exercise principles, communication, and documentation. Lab includes: skin fold testing, blood pressure, flexibility and resistance testing, and training.
Prerequisites: Informed consent, health form, medical clearance (if applicable).

4171 Personal Fitness Trainer 2 3-2-4
Provides CSC Certificate and prepares student for the National Health/Fitness Instructor Certification Exam. Topics include: application of dietary and exercise principles, therapeutic exercise, special populations, legal issues, and analysis and evaluation of common fitness techniques and norms.
Prerequisites: HFT 4170 (minimum grade C).

4172 Special Fitness Training: Larger Adults
1-0-1
A course in which students learn to address the psychological and physiological needs of larger adults in group or individual fitness training. Students may apply credit to CECs for general certification or a specialty national agency certification.
Prerequisites: None.

4173 Special Fitness Training: Older Adults
1-0-1
A course in which students learn to address the psychological and physiological needs of senior citizens in group or individual fitness training. Students may apply credit to CECs for general certification or a specialty national agency certification.
Prerequisites: None.

## 4174 Special Fitness Training: Children

1-0-1
A course in which students learn to address the psychological and physiological needs of children in group or individual fitness training on land and in water. Students may apply credit to CECs for general certification or a specialty national agency certification. Prerequisites: None.

## 4175 Special Fitness Training:

 Musculoskeletal/Neurologic Disorders1-0-1
A course in which students learn to work with individuals with arthritis, fibromyalgia, multiple sclerosis, Parkinson disease, ALS, low back pain, hip/knee replacements, spinal cord injuries, and cancer. Students may apply credit to CECs for general certification or a specialty national agency certification.
Prerequisites: None.

## 4176 Special Fitness Training: Nutrition and Exercise <br> 1-0-1

An advanced course on nutrition through the lifespan emphasizing nutritional supplements, the effects of fad diets, and athletic performance. Students may apply credit to CECs for general certification or a specialty national agency certification. Prerequisites: None.

## 4177 Special Fitness Training: Perinatal

1-0-1
A course in which students learn to work with perinatal and postpartum clients using the American College of Obstetricians and Gynecologists (ACOG) guidelines. Students may apply credit to CECs for general certification or a specialty national agency certification.
Prerequisites: None.

## 4178 Special Fitness Training:

 Common Chronic DiseasesA course in which students apply knowledge, skills, and techniques for teaching fitness and wellness to clients with chronic illnesses such as cardiovascular, pulmonary, and metabolic
diseases. Credit may be applied to CECs for general certification or a specialty national agency certification.
Prerequisites: None.
4180 Leading and Developing Exercise Programs
Topics include: exploration of leadership concepts and styles as they relate to the development and implementation of exercise programs for individuals and groups.
Prerequisites: None.

4181 Fitness Assessment and Exercise Prescription
2-2-3
Methods of assessing health status, cardiorespiratory and muscular fitness, and flexibility and body composition in healthy individuals; and development and evaluation of exercise prescriptions. Prerequisites: None.

# HFT - Health and Fitness Technology HIM - Health Information Management 

4182 Community Health Assessment
A course on techniques for screening, appraising and developing health history and activity patterns for the community. Students complete a community health and fitness needs assessment project. Prerequisites: None.

## 4183 Health and Fitness Internship

1-16-3
Students use health and fitness knowledge and skills with clients in a community setting. Students develop a portfolio of individual competencies.
Prerequisites: None.

## 4185 Fundamentals of Resistance Training

Safe, effective, and efficient resistance training programming techniques. Topics include: evaluation of biomechanical, physiologic, and genetic factors affecting strength and muscle tissue gain.
Prerequisites: None.

## 4186 Resistance Training Development and Implementation

Topics include: advanced application of proper resistance training form, technique, spotting, program design, and implementation for healthy adults and special populations.
Prerequisites: HFT 4185 (minimum grade C).
4199 Special Studies in Health and Fitness Var-Var-Var A student-initiated academic pursuit, mutually agreed upon by the student and the faculty member, carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the HFT program chair. Students receive grades of S or U for this course.
Prerequisites: Instructor consent.

## 4817 Integrative Therapies for Holistic Health

A course on current holistic health care practices. Topics include: comparison of the philosophies and practices of Eastern to Western medicine with emphasis on the practice of Chinese, Ayurvedic, and naturopathic medicine, practice of basic skills such as therapeutic massage, acupressure, and other therapies common to integrative medical practices.
Prerequisites: None.

## 4818 Survey of Alternative and

 Complementary Medicine3-0-3An introduction to alternative and complementary medicine. Topics include: alternative medical practices such as mind-body interventions, bioelectromagnetic applications in medicine, community-based health care practices, manual healing methods, pharmacologic and biologic treatments, diet, and nutrition in the prevention and treatment of disease.
Prerequisites: None.

9368 Cooperative Education Health and Fitness Technology

1-40-2
Health and Fitness Technology students apply knowledge and skills acquired in classes in a full-time paid learning experience. Students must adhere to the Health and Public Safety Division Student Handbook and program requirements. Prerequisites: Admitted to the Health and Fitness Technology program, coordinator consent, 2.0 minimum GPA.

## 9378 Parallel Cooperative Education Health and Fitness Technology

1-20-1
Health and Fitness Technology students apply knowledge and skills acquired in classes in a part-time paid learning experience. Students must adhere to the Health and Public Safety Division

Student Handbook and program requirements.
Prerequisites: Admitted to the Health and Fitness Technology program, coordinator consent, 2.0 miminum GPA.

## HIM Health Information Management

## 1000 Medical Office ICD-9-CM Coding

An in-depth study of diagnostic coding for the medical office. Emphasizes ICD-9-CM codes used on superbills and other encounter forms.
Prerequisites: None.

1001 Medical Office Basic CPT Coding
2-3-3
An introduction to coding using Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS). Topics include: CPT and HCPCS rules for Medicare billing in ambulatory settings.
Prerequisites: MCH 4807, HIM 4407 (minimum grade C).

4400 Introduction to Health Information Management 3-2-4 An orientation to the Health Information Management profession and health care data. Topics include: history of the profession, professional associations, ethics, data collection, access, storage, retention, and organization of the HIM function
Prerequisites: None.

4401 Health Care Information Technology Systems 2-2-3 An introduction to hardware and software systems commonly used in health care. Topics include: hardware, software, proprietary applications used in Health Information Management, and clinical inpatient information systems.
Prerequisites: MCH 4002, HIM 4400, HIM 4407, HIM 4415
(minimum grade C).
4407 Health Record Content and Format
An overview of the health record. Topics include: the content of the health record and documentation requirements.
Prerequisites: MCH 4806, HIM 4400, MCH 4002 (minimum grade C).

4409 HIM Seminar
3-0-3
Study of selected current issues and topics in the Health Information Management field.
Prerequisites: HIM 4431, HIM 4432, HIM 4453 (minimum grade C)

4410 Basic CPT Coding 3-2-4
An introduction to current procedural terminology and HCPCS coding.
Prerequisites: MCH 4807, BIO 4074, HIM 4407, HIM 4411
(minimum grade C).
4411 Clinical Abstracting
2-4-4
A course on abstracting supportive data to validate diagnoses and procedures and using the information to create clinical databases.
Topics include: analyzing and interpreting clinical documentation and UHDDS guidelines.
Prerequisites: MCH 4807, HIM 4407, BIO 4073 (minimum grade C).

4415 Legal Aspects of Health Information 3-0-3
A study of the medical record as a legal document. Topics include: confidentiality, access to information, legal terminology, and retention.
Prerequisites: HIM 4400, MCH 4002 (minimum grade C).

## 4417 Health Data Analysis and Presentation

A course on common statistical formulas, spreadsheet applications, and data presentation. Students must have a calculator.
Prerequisites: HIM 4420, MCH 4002 (minimum grade C).

# HIM - Health Information Management <br> HLT - Health Technologies <br> HNR - Honors Experience 

## 4420 Basic ICD-9-CM Coding <br> 2-2-3

A course on basic principles for coding ICD-9-CM classification system.
Prerequisites: MCH 4807, BIO 4074 (minimum grade C).

## 4421 Intermediate ICD-9-CM Coding

A continuation of HIM 4420. Topics include: cardiovascular system, neoplasms, pregnancy, injuries, and poisonings.
Prerequisites: HIM 4420 (minimum grade C).

## 4422 Clinical Classification Systems <br> 2-2-3

A course on principles and applications of coding systems, case mix analysis, severity of illness, and data quality.
Prerequisites: HIM 4421, HIM 4417 (minimum grade C for both).

## 4428 Professional Practice 1

Student practice in a medical records department. Activities include: admission/discharge procedures, correspondence and medical information release, analysis of documentation, record control, and projects in health information.
Prerequisites: HIM 4400, HIM 4407, HIM 4415 (minimum grade C).

## 4429 Professional Practice 2

2-8-4
A course that includes special interest assignments and exposure to alternative specialties in the health information field.
Prerequisites: HIM 4422, HIM 4428, HIM 4431, HIM 4432,
HIM 4452, HIM 4453 (minimum grade C).
4431 Health Information Department Management 4-0-4
A course on the management functions of a health information department. Topics include: organizational structure, line and staff relationships, position descriptions, job procedures, personnel evaluations, budgeting, and specific issues in health information management.
Prerequisites: HIM 4400, HIM 4407, HIM 4428 (minimum grade C).
4432 Alternative Health Record Systems
3-0-3
A course on health record content and format in specialized patient care settings. Topics include: regulatory and accreditation requirements, storage and retention needs, classification systems, data collection/reporting, and quality issues.
Prerequisites: HIM 4400, HIM 4407, HIM 4415, HIM 4420
(minimum grade C for all).

## 4449 Medical Billing Procedures

2-4-4
A course on methods for completing and processing health care claims. Topics include: applying coding guidelines and practical experience in completing a variety of health care claims.
Prerequisites: HIM 4421, HIM 4410 (minimum grade C for both).

## 4450 Reimbursement Methodologies

2-2-3
A course on various methods of reimbursement for health care services. Topics include: an overview of auditing procedures necessary for compliance and accurate reimbursement. Prerequisites: HIM 4449 (minimum grade C).

## 4451 Intermediate CPT Coding <br> 3-2-4

A course on guidelines for accurate CPT coding assignment of surgical cases. Students abstract information from actual operative reports and case studies.
Prerequisites: HIM 4410 (minimum grade C).

## 4452 Coding Skills Clinical Lab

0-3-1
A clinical lab course in which students practice and demonstrate competency in ICD-9-CM and CPT coding skills.
Prerequisites: HIM 4421, HIM 4451 (minimum grade C for both).

## 4453 Quality Assessment in

Health Information Management
3-0-3
A course on performance improvement initiatives in healthcare. Topics include: implementing quality tools as they relate to HIM activities and concepts, and theories of utilization management and risk management.
Prerequisites: HIM 4417, HIM 4420 (minimum grade C for both).

## 4490 HIM Capstone

1-0-1
A review of theory and practice in health information management in preparation for national examination.
Prerequisites: Completion of the following courses with a grade of C or higher: HIM 4431, HIM 4432, HIM 4453, HIM 4422,
HIM 4451, HIM 4452.

## 4499 Special Studies -

Health Information Management Var-Var-Var A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health and Public Safety. Students receive grades of $S$ or $U$ for this course. Prerequisites: HIM 4400 (minimum grade C).

9373 Cooperative Parallel Education - HIM
1-20-1
Health Information Management students participate in part-time paid learning experience while completing other program requirements. This experience provides an opportunity to apply knowledge and skills acquired in classes. Students must adhere to the Health and Public Safety Division Student Handbook and program requirements.
Prerequisites: Admitted to the HIM program, coordinator consent, 2.0 mimimum GPA.

## HLT Health Technologies

4094 Workshops in Health Technologies 3-0-3
A study of selected issues and topics in the health technologies area that meets current needs. Content and emphasis vary from year to year.
Prerequisites: None.

## 9320 Internship - Health Technologies

1-20-1
Students participate in an unpaid field learning experience 16 to
20 hours per week. Students must adhere to Health Division co-op policies and procedures to earn credit.
Prerequisites: Admitted to a program, coordinator consent, 2.0 minimum GPA.

## HNR Honors Experience

## 1695 Orientation to Honors

1-0-1
A course required for students admitted to the Cincinnati State Honors Experience. Topics include: the expectations, responsibilities, and opportunities of the Honors Experience; and planning and implementing personal and academic skills and strategies needed for Honors courses. This course is the pre/co-requisite for all other Honors classes, and also fulfills the College orientation course requirement for students admitted to the Honors Experience. Prerequisites: Admitted to the Honors Experience.

1696 Honors Colloquium
Var-Var-Var
Study and discussion of selected interdisciplinary topics in a seminar format, emphasizing student inquiry, critical thinking, and critical analysis of material. Students complete papers, projects, and/or presentations. Topics vary from term to term.
Prerequisites: HNR 1695, ENG 1001.

# HOSP - Hospitality Technologies <br> HRM - Hotel-Restaurant Management <br> HST - History 

## HOSP Hotel-Restaurant Management

9224 Cooperative Education-Hospitality Technologies 1-40-2
Students seeking an associate's degree participate in a paid field
learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the HOSP program, 2.0 minimum GPA.
9244 Cooperative Education Hospitality - Parallel 1-20-1
Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the HOSP program, 2.0 minimum GPA.

## HRM Hotel-Restaurant Management

2804 Catering \& Banquets
A comprehensive study of a hotel banquet operation and catering office. Topics include: off-premise catering, event sales, menu planning, and room design and set-up.
Prerequisites: None.

## 2808 Dining and Beverage Service

A course on the practical application of the basic skills of professional dining and beverage service.
Prerequisites: None.

## 2821 Hospitality Sales \& Marketing

A course on marketing and sales techniques in the hospitality industry and purposes and goals of internal and external marketing strategies. Topics include: marketing plans, menu design, personal sales, advertising, and market segmentation.
Prerequisites: None.

## 2854 Food Production

1-4-3
A hands-on course in which students produce quantity food products. Topics include: using commercial equipment, standardized recipes, applying sanitation and safety principles, kitchen organization, product identification, and cooking principles. Students cook and serve one culinary event.
Prerequisites: None.
Corequisites: CUL 2831.
3630 Survey of Hospitality Careers
2-0-2
A survey of the history, trends, and organizational structure of the hospitality industry. Guest speakers and trade publications provide information on career opportunities. Students complete a career exploration project.
Prerequisites: None.

## 3631 Food Service Sanitation

2-0-2
A study of sanitation and safety in the food service industry. Topics include: information and methods to help food service managers apply sanitation procedures to proper handling functions. This is the National Restaurant Association's Educational Institute certification course.
Prerequisites: DE 0011 or appropriate COMPASS score.
3632 Food \& Beverage Cost Control 1
An introduction to food service cost systems emphasizing purchasing and production. Topics include: buying, receiving, inventories, portioning, and computing costs.
Prerequisites: DE 0024 or appropriate COMPASS score.

3633 Food \& Beverage Cost Control 2
3-0-3
A continuation of HRM 3632. Topics include: food service cost control systems emphasizing sales control, profit and loss, and labor control. Students use relevant software applications.
Prerequisites: HRM 3632.

## 3634 Dining Room Service 1

0-6-2
A course on fundamental dining room service. Student are introduced to table settings, customer interaction, table service, and the point of sale system as they serve breakfast and lunch in the dining room.
Prerequisites: CUL 3601.

## 3635 Food \& Beverage Supervision <br> 3-0-3

A course on human resource management in food service. Topics include: the problems of human resources and the elements of leadership and supervision.
Prerequisites: None.
3636 Hospitality Sales \& Marketing
3-0-3
A course on marketing and sales techniques in the hospitality industry and purposes and goals of internal and external marketing strategies. Topics include: marketing plans, menu design, personal sales, advertising, and market segmentation.
Prerequisites: None.
3638 Beverage Management and Mixology
0-6-2
A course on beverage operations. Topics include: production of beer, wine, and distilled spirits; mixology; beverage controls; and operation of the dining room bar.
Prerequisites: HRM 3634.
3640 Dining Room Service 2
0-6-2
A continuation of HRM 3634. Topics include: beverage service, sales techniques, advanced POS functions, and French table service. Student serve evening meals in the dining room.
Prerequisites: HRM 3634.
3641 Restaurant Operations
A course on applying marketing, financial, and human resource concepts used in restaurant operations. This is the capstone course for restaurant management students and should be taken near the completion of the curriculum coursework.
Prerequisites: HRM 3638, HRM 3640.
3652 Hotel Front Office Procedure
4-0-4
Study of front office management and operation with emphasis on using various types of front office equipment, supplies, and procedures. Topics include: practical operating procedures in performing the hotel night audit including registration, rates, and posting charges and credits.
Prerequisites: None.
3653 Hospitality Housekeeping
3-0-3
A course on housekeeping and its administration. Topics include: control of supplies, sanitation, cleaning techniques, decoration, equipment, and related subjects.
Prerequisites: None.

## HST History

1561 History of World Civilization 1
An introduction to the major trends in the development of Western and Asiatic civilizations from ancient Eurasian times to the fall of Byzantium.
Prerequisites: DE 0005, DE 0011 or appropriate reading and writing COMPASS scores.

## 1562 History of World Civilization 2

3-0-3
An introduction to the major trends in Western and Asiatic
civilizations from the fall of Byzantium to the Congress of Vienna. Includes the native civilizations of the Americas.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.

## 1563 History of World Civilization 3

3-0-3
An introduction to the major trends in Western and Asiatic civilizations from the Congress of Vienna to contemporary times. Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.

1568 American History 1
3-0-3
General historical survey of the formative years of the Republic from Colonial America through the outbreak of the American Civil War.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.
1569 American History 2
3-0-3
General historical survey of the United States from the Civil War through the end of World War I.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.
1570 American History 3
General historical survey of the United States from the Roaring
Twenties to contemporary times.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.

## 1575 History of Africa

3-0-3
A general survey of African history with emphasis on the Diaspora, and the political, social, and cultural factors creating modern Africa. Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.

1576 African-American History 1
3-0-3
African-American history from 1619 to the Civil War of 1860.
Topics include: the different experiences of Blacks in the New World, and the various factors that have shaped African-American communities in America.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.
1577 African-American History 2
A history of African-Americans from 1860 to the Depression era. Topics include: the role of African-Americans in the Civil War, their post-war experiences, the intensification of segregation, and their involvement in WWI and the post-war era.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.

## 1578 African-American History 3

3-0-3
A history of African-Americans from the Depression to the present. Topics include: African-Americans in WWII, involvement in
African resistance movements, rise of civil rights movements, and important African-American personalities.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS score.

## HUM Arts \& Humanities

1698 Topics in Humanities
Var-Var-Var
Study and discussion of selected topics in the humanities, which may be drawn from one field within the humanities (e.g., urban history, criminology, social welfare in society, film studies) or may be interdisciplinary (e.g., popular culture studies, women's studies). Content and emphasis may vary from term to term.
Prerequisites: ENG 1001.

## 9801 Career Exploration Seminar

3-0-3
Students seeking an Associate of Arts or Associate of Science degree assess their life experience, skills, and interests, and carry out a variety of structured activities (including directed reading and writing
assignments) in order to set realistic career goals. Students should complete this course during their second or third academic term. Prerequisites: ENG 1001.

9802 Internship - Humanities \& Sciences
1-20-2
Students seeking an Associate of Arts or Associate of Science degree participate in a part-time ( 15 to 32 hours per week for one academic term) unpaid field learning experience related to their career goals. Students must adhere to degree program internship policies and procedures to earn credit. The course may be repeated for additional credit.
Prerequisites: Admitted to an AA or AS program, HUM 9801, coordinator consent, 2.0 minimum GPA.

9803 Cooperative Education Humanities \& Sciences 1-40-2
Students seeking an Associate of Arts or Associate of Science degree participate in a full-time ( 32 to 40 hours per week for one academic term) paid field learning experience related to their career goals. Students must adhere to the degree program cooperative education policies and procedures to earn credit. The course may be repeated for additional credit.
Prerequisites: Admitted to an AA or AS program, HUM 9801, coordinator consent, 2.0 minimum GPA.

## 9804 Parallel Cooperative Education Humanities \& Sciences

Students seeking an Associate of Arts or Associate of Science degree participate in a part-time (15 to 32 hours per week for one academic term) paid field learning experience related to their career goals. Students must adhere to the degree program cooperative education policies and procedures to earn credit. This course may be repeated for additional credit.
Prerequisites: Admitted to an AA or AS program, HUM 9801, coordinator consent, 2.0 minimum GPA.

9805 Career Education Project Humanities \& Sciences 1-40-2 Students seeking an Associate of Arts or Associate of Science degree complete individual study or a special project related to their major field and pertaining to their career goals. Working with an assigned faculty mentor, students define the project goals, carry out project tasks, and evaluate the results. This course may be repeated for additional credit.
Prerequisites: Admitted to an AA or AS program, HUM 9801, coordinator consent, 2.0 minimum GPA.

9806 Career Education Project 2 Arts \& Sciences 2-40-4
Students seeking an Associate of Arts or Associate of Science degree complete individual study or a special project related to their major field and pertaining to their career goals. Working with an assigned faculty mentor, students define the project goals, carry out project tasks, and evaluate the results. This course may not be repeated for additional credit.
Prerequisites: Admitted to an AA or AS program, HUM 9801, coordinator consent, 2.0 minimun GPA.

9807 Internship - Humanities and Sciences
1-40-4
Students seeking an Associate of Arts or Associate of Science degree participate in a full-time ( 32 to 40 hours per week for one academic term) unpaid field learning experience related to their career goals. Students must adhere to degree program internship policies and procedures to earn credit. The course may be repeated for additional credit.
Prerequisites: Admitted to AA or AS program, HUM 9801, coordinator consent, 2.0 minimum GPA.

# HYD - Industrial Maintenance <br> IDT - Industrial Design Technology <br> IMT - Integrative Medical Massage Therapy 

## HYD Industrial Maintenance

1011 Basic Industrial Hydraulics 1 3-1-3
A course on the fundamentals and principles of industrial hydraulics emphasizing hands-on exercises. Topics include: fluid conductors, seals, basic hydraulic symbols, construction, operation, and specific use of hydraulic pumps. Prerequisites: None.

## IDT Industrial Design Technology

7801 Introduction to Industrial Design 2-3-3
An overview of technical skills used in Industrial Design. Topics
include: introduction to operating systems, file and data management, text and database documents, and electronic portfolios. Students use mechanical, graphic, and industrial design software. Prerequisites: None.

## 7825 Human Factors in Design

2-3-3
A course on the study of elements relevant to human form and function. Topics include: using these principles as the foundation for designing safe and functional products.
Prerequisites: MET 7008 or MET 7108.
7850 Computer Modeling 1
2-3-3
An introduction to creating accurate three-dimensional surface and solid models. Students develop three-dimensional computer models for graphic visualization using advanced surfacing software. Prerequisites: MET 7110 or MET 7108.

7855 Computer Modeling 2
2-3-3
A continuation of MET 7850. Topics include: creating, editing, and manipulating 3D surface models.
Prerequisites: IDT 7850.
7870 Model Making/Prototyping
2-3-3
A course on the skills and techniques of fabricating models and prototypes. Students create actual physical models to demonstrate their designs.
Prerequisites: IDT 7855.

## 7880 Advanced Model Making/Prototyping

2-3-3
A continuation of IDT 7870. Students further develop the skills and techniques of fabricating models and prototyping required in the industrial design industry.
Prerequisites: IDT 7870.

## 7890 Industrial Design Project

2-3-3
A capstone course in which students complete an individual design of a product from concept to prototype.
Prerequisites: IDT 7880.

## IMT Integrative Medical Massage Therapy

4085 Clinical Anatomy and Physiology for the Massage Therapist 1

3-4-5
An introductory course on the human body. Topics include: the chemical and tissue levels of organization, the integumentary system, and bone tissue. Students must have a Personal Education Number issued by the Ohio Medical Board in order to enroll in this course.
Prerequisites: IMT 4855 (minimum grade C), admitted to the IMT program, 2.0 minimum GPA.

4086 Clinical Anatomy and Physiology for the Massage Therapist 2
A continuation of IMT 4085. Topics include: axial skeleton, appendicular skeleton, muscles, and articulations.
Prerequisites: IMT 4085 (minimum grade C).
Corequisites: IMT 4857.
4087 Clinical Anatomy and Physiology for the Massage Therapist 3
A continuation of IMT 4086. Topics include: muscles and muscle tissue, nervous tissue, spinal cord, spinal nerves, the brain, and cranial nerves.
Prerequisites: IMT 4086 (minimum grade C).
Corequisites: IMT 4858.

## 4088 Clinical Anatomy and Physiology

for the Massage Therapist 4
3-4-5
A continuation of IMT 4087. Topics include: sensory, motor, and integrative systems, special senses, autonomic nervous system, endocrine system, and blood.
Prerequisites: IMT 4087, IMT 4857 (minimum grade C).

## 4089 Clinical Anatomy and Physiology

for the Massage Therapist 5
A continuation of IMT 4088. Topics include: heart, blood vessels, lymphatic system, immunity, respiratory system, digestive system, and urinary system.
Prerequisites: IMT 4088 (minimum grade C).
Corequisites: IMT 4859.
4850 Professionalism and Ethics in Massage Therapy 2-0-2
An introductory course that covers state-required content. Topics include: sexual boundary issues, impairment and chemical dependency, and professionalism in a massage therapy practice. Prerequisites: Admitted to the IMT program, 2.0 minimum GPA.

4852 Integrative Medical Massage Student Clinic 3-6-5
A simulated clinical setting in which the student provides direct patient care, applying structural and functional assessment of neuromuscular and skeletal disorders under the direct supervision of a Licensed Massage Therapist.
Prerequisites: IMT 4892, IMT 4859, IMT 4089 (minimum grade C for all).

4855 Introduction to Integrative Medical Massage 2-2-3
An introduction to the profession of Integrative Medical Massage Therapy. Topics include: history of medical massage, therapeutic environment, communication skills for Massage Therapists, and an introduction to the theory and techniques of massage therapy.
Prerequisites: IMT 4850 (minimum grade C).
4856 Integrative Medical Massage 2
3-4-5
A continuation of IMT 4855. Topics include: medical history taking, Swedish massage techniques, professional ethics in integrative medical massage, palpatory practice, applied anatomy, and clinical pathology.
Prerequisites: IMT 4855 (minimum grade C).
Corequisites: IMT 4085.

4857 Integrative Medical Massage 3
3-4-5
A continuation of IMT 4856. Topics include: Swedish massage techniques, assessment of musculoskeletal health, pathology of soft tissue, Muscle Energy Techniques, professional ethics, and applied anatomy.
Prerequisites: IMT 4856 (minimum grade C).
Corequisites: IMT 4086.

## IMT - Integrative Medical Massage Therapy IT - Information Technologies

## 4858 Integrative Medical Massage 4 <br> 3-4-5

A continuation of IMT 4857. Topics include: Swedish massage techniques, assessment of musculoskeletal and joint health, pathology of joints, professional ethics of integrative medicine, and taking and recording medical history.
Prerequisites: IMT 4857 (minimum grade C).
Corequisites: IMT 4087.

## 4859 Integrative Medical Massage 5

A continuation of IMT 4858. Topics include: Swedish massage techniques theory review, introduction to craniosacral therapy as a soft tissue modality, assessment and treatment of soft tissue disorders, and documenting soft tissue function for the medical record.
Prerequisites: IMT 4858 (minimum grade C).
Corequisites: IMT 4088.
4891 Gross Anatomy for Massage Therapist 1-2-2
A study of gross anatomy of the human body, including cadaver study, as it applies to massage therapy.
Prerequisites: None.
Corequisites: IMT 4852.

## 4892 Business Practices for the

 Medical Massage Therapist3-0-3
A course on developing a business plan and designing and managing a professional office. Topics include: practices for establishing a professional practice such as marketing, record keeping, taxes, insurance, and Ohio law as it applies to the licensed massage therapist.
Prerequisites: BUS 2925 (minimum grade C).

## 4893 Integrative Medical Massage Therapy Community Service

Community service experience in which the student applies
knowledge and skills of integrative medical massage.
Prerequisites: None.
Corequisites: IMT 4894.

## 4894 IMT Clinical Anatomy \& Physiology Review 3-0-3

A comprehensive review of anatomy and physiology required for massage therapists in preparation for the Ohio Medical Board licensure exam.
Prerequisites: IMT 4891 (minimum grade C).
Corequisites: IMT 4895.
4895 IMT Comprehensive Review of Massage Therapy 3-0-3
A comprehensive review of the theory and practice of massage therapy techniques in preparation for the Ohio Medical Board licensure exam.
Prerequisites: None.
Corequisites: IMT 4894.

## 4897 Massage Therapy Special Studies

Var-Var-Var
Study and special projects concerning integrative massage therapy open to licensed massage therapists for Associate of Technical Studies degree in integrative massage therapy.
Prerequisites: Licensed Massage Therapist (State of Ohio).
4899 Special Studies in Massage Therapy Var-Var-Var
Individual study, special projects, or credit for external certification in student's area of concentration. Open to students desiring advanced standing or independent study. Students arrange this course with their advisor; requires consent of Dean of Health and Public Safety.
Prerequisites: Licensed Massage Therapist (State of Ohio), graduate of an accredited massage therapy program.

## IT Information Technologies

5102 Introduction to Macintosh
2-2-3
An introduction to operating the Apple Macintosh computer. Topics
include: Microsoft Word word processing software, and Claris
Draw graphics software. Competency in typing or keyboarding is recommended.
Prerequisites: None.

## 5120 LAN Administration: Novell

3-2-4
A course in user administration for Novell local area network technology. Topics include: adding and controlling users, making network resources available to users, diagnosing and troubleshooting common problems, making Windows available, and setting up user scripts and menus.
Prerequisites: IT 5231, IT 5211.

## 5121 LAN Administration: Windows 1

3-2-4
A course on user administration for Microsoft Windows Server technology. Topics include: adding and deleting users, changing user privileges, and installing client software. Lab exercises expand understanding of key concepts.
Prerequisites: IT 5201, IT 5231 or IT 5151.

## 5122 LAN Administration: Windows 2

3-2-4
A continuation of IT 5121. Topics include: directory services, active directory, performance monitoring, and deploying and managing software.
Prerequisites: IT 5121.

## 5125 LAN Administration: Messaging

3-2-4
A course on messaging via a network system. Topics include:
e-mail, voice mail, intergrating e-mail to voice mail, voice over IP, and instant messaging.
Prerequisites: IT 5121.
5128 Networking Design Project
3-2-4
A capstone course for students in the networking programs. Topics include: analyzing and designing proper network architecture and network installation. Students work in teams to develop network solutions for various business applications.
Prerequisites: IT 5122 or IT 5153.
5130 Telecommunications Management
3-2-4
A course on business telephone systems, equipment, services, and management. Topics include: PBX, Digital IBX, ISDN, SDN, DDS, ACD T-1, WATS, Megacomm, tariffs, wire distribution systems, documentation, and integration between computers and phone systems.
Prerequisites: None.

## 5131 Network Management/Help Desk

3-2-4
A course on help desk operations. Topics include: procedures, network management systems/software, troubleshooting with a network management system, server management, and configuring for fault tolerance.
Prerequisites: IT 5201.

## 5151 Network Communications 1

2-3-3
A course on computer networks and network operating systems. Topics include: network topology, local and wide area networks, connecting devices to networks, basic network software and file sharing, and problem solving. This course helps students prepare for the NET+ exam.
Prerequisites: IT 5201 or EET 7716.

5152 Network Communications 2
A continuation of IT 5151. Topics include: bridges; Ethernet switches; routers; gateways; network software; routed networks; router and bridge protocols; and VLANS, DNS, and DHCP services for client systems. Students demonstrate the operation of expandable networks and operating systems.
Prerequisites: IT 5151.

## 5153 Network Communciations 3 2-3-3

A continuation of IT 5152. Topics include: access points, wireless bridges, relay concepts, access point power coverage areas, data transmission speeds, SSID, WEP, and data encryption. Students build and test wireless networks and incorporate design changes for networking models.
Prerequisites: IT 5152.

5154 Network Security and Legal Issues 1
3-2-4
A course on security and legal issues surrounding the use of computers. Topics include: security implementation, software protection, physical security, policy development, legal and ethical issues relevant to computer crime, software usage, and ethical responsibilities of business professionals.
Prerequisites: IT 5121.
5155 Network Security and Legal Issues 2
A continuation of IT 5154. Topics include: authentication, remote access, Web security, computer forensics, Internet crime, employer/ employee issues, and rights of software developers. Prerequisites: IT 5154.

5199 Special Studies - Information Technologies Var-Var-Var Individual and independent study and special projects pertaining to the particular technology in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College or with a specific problem found in the industry in which the student is employed. Students must make special arrangements with the instructor and program chair. Prerequisites: None.

## 5201 Information Technology Concepts

2-3-3
An overview of information technologies. Topics include: networks, database management and access software, systems analysis and design, programming languages, and numbering systems. This course is only offered via the Internet. Students must understand basic computer terminology and be proficient with Microsoft Office applications and the Internet.
Prerequisites: None.

## 5202 Programming Logic and Methods

An introductory course in programming logic, methods, and documentation, emphasizing the structured approach to programming. Lab exercises focus on typical business applications. Prerequisites: IT 5201.

## 5204 Program Design 1

An introduction to the basic elements of program design. Topics include: the sequence and iteration process, decision trees, decision tables, algorithms, flow charts, and basic program functions of business applications.
Prerequisites: None.

5205 Program Design 2
A continuation of IT 5204. Topics include: reading flowcharts, creating pseudocode for fundamental programming concepts for business applications, data flow diagrams, and database concepts. Prerequisites: IT 5204.

## 5206 Programming Logic and BASIC

4-6-6
An introductory course in programming logic, methods, and documentation emphasizing the structured approach to programming. Students use typical business applications as problems, incorporating BASIC programming using structured programming techniques. Keyboarding ability necessary.
Prerequisites: None.
Corequisites: IT 5201, MAT 1124.
5207 Systems Analysis and Design
2-3-3
An introductory course that presents business/system analysis skills and techniques within the framework of the systems development life cycle (SDLC). Topics include: business case analysis; requirements modeling; enterprise modeling; development strategies; and systems design, implementation, and support considerations.
Prerequisites: IT 5201.
5208 PC Software Support
3-2-4
An introductory course in PC software support processes. Topics include: using utility programs to back up and recover from hardware and software disasters, installing new software and updating existing programs, optimizing computer performance using software tools, and modifying/optimizing the Windows environment. Prerequisites: IT 5232.

5211 Data Communications 1
2-3-3
An introductory course in business data communications. Topics include: basic terminology and concepts, operation and design of data communications systems, and a logical approach to recognizing communication problems.
Prerequisites: IT 5201.

## 5212 Data Communications 2

A continuation of IT 5211. Topics include: wide-area communications systems, communications test equipment, software testing programs, the model for Open Systems Interconnection of the International Standards Organization (ISO), protocol analysis, transmission cables and connectors and software diagnosis of communications problems.
Prerequisites: IT 5211.
Corequisites: EET 7702.
5216 Applied Programming Concepts 1
2-3-3
A course on solving data manipulation problems using structured programming concepts. Topics include: simple data types, keyboard input, disk file input and output, formatted printing, and using control fields in data. Students design and use programming tools to plan, design, and document programs.
Prerequisites: None.
5217 Applied Programming Concepts 2
2-3-3
A continuation of IT 5217. Topics include: using sub-procedures, arrays, data conversions, and string manipulations to solve complex data manipulation problems; using data types, passing values, and defining functions; programming in a graphical user interface environment; and object-oriented constructs.
Prerequisites: IT 5216 or IT 5291.
5220 Videography, Gripping, and Lighting Techniques
2-3-3
An introductory course on videography skills. Topics include: industry terminology, digital video camera techniques, shot composition, and use of lighting and support equipment for video and film projects.
Prerequisites: IT 5410, IT 5420 (minimum grade C for both).

## IT - Information Technologies

## 5221 Video Production and Editing Basics

2-3-3
An introductory course on video production and editing process from concept to completion using Final Cut Pro and Avid XpressDV. Topics include: production planning, documentation, basic scripting and storyboarding, and basic digital video editing techniques.
Prerequisites: IT 5220.

## 5224 Video Production/Editing: Avid

A course on professional techniques for video production and editing using Avid Xpress DV. Topics include: visual storytelling and advanced digital editing techniques with attention to transitions, effects, and output.
Prerequisites: IT 5221, TC 5035 (minimum grade C for both).
5225 Video Post-Production: After Effects
3-4-5
A course on professional techniques using Adobe Premiere and Avid Xpress DV for video post-production and Adobe After Effects for compositing. Topics include: advanced video editing techniques including compositing, lighting, framing, and motion control. Prerequisites: IT 5221, IT 5442, IT 5443.

## 5227 Video Production/Editing: Final Cut Pro

3-4-5
A course on professional techniques for video production and editing using Apple Final Cut Pro. Topics include: advanced video post-production techniques, and producing video presentations for multiple computer platforms and a variety of distribution media. Prerequisites: IT 5221, TC 5035 (minimum grade C for both).

5228 Audio/Video Capstone Project
3-3-4
Working in teams, students develop audio and video products for an external client. Activities include: audience, client, and market analysis; product design, planning, production, and testing; and project management. Students present project results to reviewers. Students who are unable to complete the course successfully may make one additional attempt.
Prerequisites: Completion of all other Audio/Video Production degree requirements with grades of C or higher.

## 5229 Audio/Video/Film Seminar

2-0-2
A course in which students meet with local and/or national professionals in the fields of audio, video, and/or film production for discussion of professional issues and concerns.
Prerequisites: Program chair consent.
5230 Introduction to IBM System i
2-3-3
An introductory course on computer operations using IBM system i servers, emphasizing menus and functions.
Prerequisites: None.
5231 Operating Systems: Windows 1
2-3-3
An introduction to Windows operating system used on PCs. Topics include: basic commands and options; creating, naming, and manipulating files; sub-directories; batch files; start-up files; and Windows utilization and management. Lab work reinforces concepts. Prerequisites: None.

## 5232 Operating Systems: Windows 2

2-3-3
A continuation of IT 5231. Topics include: utilities, drivers, memory management, and functions; constructing macros and batch files with conditions and iterations; backing up and recovering from directory and file errors; third party utilities; and managing and installing applications.
Prerequisites: IT 5231.

5233 Command Language 1 (CL 1)
2-3-3
A course in which students use the IBM OS/400 operating system to learn fourth generation operating systems. Topics include: using Control Language to expedite operations and create accounts, libraries and files and writing Control Language procedures programs. Students need some programming experience.
Prerequisites: None.
5234 Command Language 2 (CL 2)
2-3-3
A continuation of IT 5233. Topics include: writing user-assisting procedures in Control Language and using system commands that enable efficient system management.
Prerequisites: IT 5233.

## 5240 IBM WebSphere and XML

2-3-3
An introduction to IBM WebSphere software and XML. Topics include: installing, configuring, and maintaining the software; and using XML with the configuration files.
Prerequisites: None.
5241 PC Support/iSeries Access
2-3-3
A course on integrating Microsoft Office with the database capabilities of the iSeries. Topics include: using Microsoft Word, Excel, Access, and Query and transferring data using iSeries Access, FTP, ODBC and UDA.
Prerequisites: IT 5206, IT 5240.
5247 Systems Analysis \& Design Project
2-3-3
Students analyze, design, and implement a solution to a business problem using computerized project management tools and methodologies. Students must complete a presentation of the finished project.
Prerequisites: None.
Corequisites: IT 5207.

## 5251 Structured COBOL 1

4-6-6
Students use the COBOL-85 standard language in the structured programming environment, emphasizing debugging techniques. Assignments use disk, printer and terminal data.
Prerequisites: IT 5206 (minimum grade C).
5252 Structured COBOL 2
4-6-6
A continuation of IT 5251. Topics include: advanced COBOL
techniques using randomly processed disc files and accessing indexed-sequential and direct-access files using keys and algorithms. Prerequisites: IT 5251 (minimum grade C).

5266 RPG 1
2-3-3
An introduction to RPG programming. Topics include: RPG forms, processing sequential files, data definitions, externally defined files, structured programming techniques, and calculating business reports. Prerequisites: IT 5216.

## 5267 RPG 2

2-3-3
A continuation of IT 5266. Topics include: file access and record manipulation, control break processing, tables and arrays, multiple printer files, and modular programming concepts.
Prerequisites: IT 5266.

5268 RPG 3
2-3-3
A continuation of IT 5267. Topics include: interactive applications and advanced programming required to create these applications, display files, advanced data definitions, and error handling. Prerequisites: IT 5267.

5269 RPG 4
2-3-3
A continuation of IT 5268. Topics include: advanced interactive applications, subfile inquiry, and updates. Includes a project encompassing all aspects of the RPG programming language. Prerequisites: IT 5268.

## 5271 Java 1 <br> 2-3-3

An introductory course on computer programming using the Java programming language. Topics include: introduction to OOP, classes, applets, controls, event handling, layouts, mathematical operations, looping, conditional statements, functions, arrays, and strings.
Prerequisites: IT 5216, IT 5291, IT 5331, or IT 5455.

## 5272 Java 2

A continuation of IT 5271. Topics include: application frames, menus, dialogs, multimedia, serialization, streams, JDBC, and database programming.
Prerequisites: IT 5271.
5273 Java 3
2-3-3
A continuation of IT 5272. Topics include: servlets, Java server pages, MVC (Model-View-Controller) patterns, and the Struts tag library. Prerequisites: IT 5272.

5274 Java 4
2-3-3
A continuation of IT 5273. Topics include: Enterprise Java Beans (EJB), Web services, and Java patterns.
Prerequisites: IT 5273.
5275 C++ Programming 1
3-3-4
An introductory course on computer programming using the C++ programming language. Topics include: mathematical operations, looping, conditional statements, functions, arrays, and strings; methods for solving mathematical problems; and menu-driven programming. Students need basic computer operating systems knowledge and text editor or word processor capability. Prerequisites: IT 5291.

## 5276 C++ Programming 2

A continuation of IT 5275. Topics include: graphic functions, structured variables, pointers, bitwise operations, and preprocessor commands. Students use advanced programming techniques including disk I/O operations and command line operations to produce database managers, graphical analysis, and display programs. Prerequisites: IT 5275.

5277 Object Oriented Programming: C++ 3-3-4 An introductory course on concepts and techniques of Object Oriented Programming (OOP) using the C++ programming language. Topics include: constructors, destructors, polymorphism, inheritance, encapsulation, virtual functions, and overloaded operators.
Prerequisites: IT 5276.

## 5278 Visual C++ Programming 1

3-3-4
An introductory course on Visual C programming using C Sharp (\#). Topics include: programming in C++, object oriented programming, and database applications using ADO.
Prerequisites: IT 5277, IT 5321.

## 5291 Visual BASIC 1

An introductory course on programming logic and methods using Visual Basic.NET. Topics include: the programming development cycle, program design, introduction to VB.NET common controls, variables/constants and data types, and selection and repetition structure.
Prerequisites: None.

## 5292 Visual BASIC 2

2-3-3
A continuation of IT 5291, emphasizing programming logic while building on Visual Basic . NET fundamentals. Topics include: procedures and functions, common dialogs, arrays, multiple forms, multiple document interfaces, collections, and creating and reading sequential access files.
Prerequisites: IT 5291.
5293 Visual BASIC 3
2-3-3
A continuation of IT 5292. Topics include: an introduction to OOP design and implementation, using the .NET framework, developing class modules, and accessing and writing to databases using ADO.NET and SQL.
Prerequisites: IT 5292, IT 5320.

## 5294 Visual BASIC 4

2-3-3
A continuation of IT 5293. Topics include: using . Net programming skills to create Web-based applications in ASP.Net.
Prerequisites: IT 5293, IT 5453.
5295 Visual BASIC 5
2-3-3
A continuation of IT 5294. Students utilize their .NET programming and ASP.NET knowledge to build, deploy, and locate XML Web Services-based solutions.
Prerequisites: IT 5294.

## 5299 Current Topics in

Computer Network Engineering Technology 3-3-4
A personal academic pursuit related to the student's technical field of study mutually agreed upon by the student and supervising faculty member. The Dean of the Center for Innvovative Technologies must approve the plan of study prior to registration.
Prerequisites: IT 5122, IT 5151.
5310 Programming Database Applications
An introduction to database programming using COBOL. Topics include: the concepts of database management systems, both hierarchical and relational.
Prerequisites: IT 5252.
5311 IBM DB2 SQL Programming 1
An introductory course on using a relational database to create tables, manipulate data, and extract information. Topics include: designing, creating, and accessing the database. Methods of access include: interactive manipulation, user-written procedures, and access through other languages.
Prerequisites: None.
5312 IBM DB2 SQL Programming 2
A continuation of IT 5311. Students achieve skill levels from intermediate to advanced programming using SQL. Topics include: packages, cursors, and record sets. Methods of access include: interactive manipulation, user-written procedures, and access through other languages.
Prerequisites: IT 5311.
5314 Business Intelligence: Data Warehousing $1 \quad$ 2-3-3 An introduction to the design and methodology for creating data warehouses. Topics include: data cleansing, star schema, and contemporary data mart tools.
Prerequisites: None.
5315 Business Intelligence: Data Warehousing 2
A continuation of IT 5314 in which students create data marts. Prerequisites: IT 5314.

## IT - Information Technologies

## 5320 Database Design and SQL

2-3-3
An introduction to relational database design and the SQL. Topics include: records, fields, data types, tables, normalization, and queries. Prerequisites: None.

## 5321 Database Programming \& Administration:

 SQL Server 12-3-3
A course on fundamentals of relational database design and implementation using Microsoft SQL Server. Students use the SQL Enterprise Manager and examine objects and their properties. Topics include: SQL groups, databases, table structure, data field types, and query statements.
Prerequisites: IT 5320.

## 5322 Database Programming \& Administration:

 SQL Server 22-3-3
A continuation of IT 5231. Students use the SQL Enterprise Manager to program and administer database objects and their properties. Topics include: stored procedures, advanced database normalization, and advanced query statements to join across tables. Prerequisites: IT 5321.

## 5323 Database Programming \& Administration:

 Oracle 12-3-3
A course on relational database design and implementation fundamentals using Oracle. Students use the Oracle SQL query language to program and administer database objects and their properties. Topics include: SQL groups, databases, table structure, data field types, and query statements.
Prerequisites: IT 5320.

## 5324 Database Programming \& Administration:

 Oracle 22-3-3
A continuation of IT 5323. Students use the Oracle SQL query language to program and administer database objects and their properties. Topics include: stored procedures, advanced database normalization, and advanced query statements to join across tables. Prerequisites: IT 5323.

## 5325 Database Administration 1

2-3-3
An introduction to the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server. Topics include: SQL architecture, SQL installations, file management, security, and administrative tasks and tools.
Prerequisites: IT 5121, IT 5321.

## 5326 Database Administration 2

2-3-3
A continuation of IT 5325. Students learn to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server. Topics include: backup strategies, restoration procedures, database monitoring and optimization, data transferring and migration, and database replication.
Prerequisites: IT 5325.

## 5329 Data Reporting: Crystal Reports

2-3-3
Students learn Crystal Reports as the reporting tool for their VB.NET applications linked to an SQL server database. Prerequisites: IT 5291, IT 5321.

5331 Internet Programming: ASP
2-3-3
A course on programming dynamic Web pages using Classic ASP (Active Server Pages). Students integrate server side Visual Basic Script (VBScript) and HTML to interact with an Access database in a series of complex Web projects. Student should possess fundamental Access database skills prior to attempting this course. Prerequisites: IT 5291, IT 5453.

5332 Internet Programming: JavaScript
2-3-3
A course on fundamentals of the JavaScript scripting language.
Student work with introductory topics in JavaScript and progress
through more advanced topics such as frames and forms.
Students must have a thorough knowledge of HTML before
entering this course.
Prerequisites: IT 5453.
5333 Internet Programming: XML 2-3-3
A course on programming interactive Active Server Pages for Web applications. Topics include: creating and displaying an XML document, defining and using entities, and displaying XML documents using cascading style sheets, data binding, and XSL style sheets. Prerequisites: IT 5320, IT 5453.

5340 PCSA Design Project 2-3-3
A capstone design project in which students work in teams to resolve a variety of complex assignments.
Prerequisites: EET 7781, IT 5151, IT 5208.

## 5351 CIS Design Project 1

2-3-3
A capstone design project in which students design a working system using the team concept of project design. The five phases of project development are discussed and the planning, analysis, and design phases are used to complete various team assignments. Prerequisites: IT 5233, IT 5268, IT 5273.

5352 CIS Design Project 2
2-3-3
A continuation of IT 5351. Students work in teams to resolve a variety of complex assignments.
Prerequisites: IT 5351.

## 5355 Project Control for the IT Manager

2-3-3
A course on managing an information technology budget. Topics include: IT resource management including telecommunication and hardware cost control.
Prerequisites: None.

## 5361 BCP Design Project 1

2-3-3
Students write a complete eBusiness software suite of programs.
The integrated package includes a desktop VB application and an interactive ASP Internet application utilizing a common SQL Server database.
Prerequisites: IT 5322, IT 5331.
5362 BCP Design Project 2
2-3-3
A continuation of IT 5361. Students introduce SQL Stored
Procedures into the desktop and Web applications to increase application speed and efficiency.
Prerequisites: IT 5361.
5363 BCP Design Project 3
2-3-3
A continuation of IT 5362, emphasizing reliability, speed, accuracy, and ease of use. Students develop a complete set of Help Files for the desktop and Web applications.
Prerequisites: IT 5362.

## 5380 Software Engineering Technology Project

2-3-3
A capstone project course in which the instructor guides students through the process of designing and coding a database application. Project phases include mapping out functionality, designing screens, designing the database, and coding the design.
Prerequisites: IT 5293, IT 5321.

## 5410 Cross-Platform Computer Systems and Applications

2-2-3
An introduction to operating systems software and end-user applications software in Windows and Macintosh computing environments. Topics include: file management, file compressing, printer installation, and other basic processes and procedures for each computing environment.
Prerequisites: None.

## 5420 Digital Media Concepts

2-3-3
An introduction to software, hardware, and peripheral equipment used to create, revise, and produce digital images for multimedia products. Equipment used includes: scanners, printers, and digital cameras.
Prerequisites: None.

## 5432 Interactive Interface Design

2-3-3
An introduction to creating, revising, and producing interactive multimedia presentations using Macromedia Director.
Prerequisites: IT 5453 (minimum grade C).

## 5435 Web Design 1

2-3-3
An introduction to creating dynamic Web site content using Macromedia Dreamweaver.
Prerequisites: IT 5453 (minimum grade C).

## 5436 Web Design 2

2-3-3
A continuation of IT 5435, focusing on database design and scripting using Macromedia Dreamweaver.
Prerequisites: IT 5320, IT 5435 (minimum grade C for both).

## 5441 Beginning 2D Graphics: Bitmap

2-3-3
An introduction to creative digital design techniques. Topics include: principles for creating images using Adobe Photoshop, photo restoration and manipulation, and Web interface design. Prerequisites: IT 5410, IT 5420, ART 1692, MAT 1124 or MAT 1151 (minimum grade C) or appropriate COMPASS score.

## 5443 Beginning 2D Graphics: Vector

An introduction to vector art creation, emphasizing color and composition, and stylized and photorealistic illustration techniques. Topics include: principles for creating images with Adobe Illustrator, identity design, layout, and line weight and quality. Prerequisites: IT 5410, IT 5420, ART 1692, and MAT 1124 or MAT 1151 (minimum grade C) or appropriate COMPASS score.

## 5444 Advanced 2D Graphics

2-3-3
A continuation of IT 5441 and IT 5443, focusing on design for advertising and packaging, and brand identity. Topics include: advanced techniques for creating, revising, and producing images using Adobe Photoshop and Adobe Illustrator.
Prerequisites: IT 5449.

## 5445 Multimedia Design 1

2-3-3
An introduction to techniques for creating and manipulating
images using Macromedia Flash.
Prerequisites: IT 5453 (minimum grade C).
5446 Multimedia Design 2
A continuation of IT 5445, emphasizing action scripting with Macromedia Flash.
Prerequisites: IT 5445 (minimum grade C).

## 5447 Beginning 2D Graphics: Web

An introduction to techniques for creating, revising, and producing images using Macromedia Fireworks.
Prerequisites: IT 5453 (minimum grade C).

5449 Graphic Design Portfolio Review
1-1-1
An assessment of skills required to enter upper-level courses in the Graphic Design program. Students take a technical skills exam and present a portfolio to a panel of evaluators. Students receive grades of $S$ or $U$ for this course. Students must pass the course to be eligible for cooperative education assignments. Students who do not pass the course may make one additional attempt.
Prerequisites: ART 1690, ENG 1002, IT 5540, GC 1423 or IT 5456 (minimum grade C).

## 5451 Beginning 3D Visualization

3-4-5
An introduction to a variety of three-dimensional basic skills using Maya. Topics include: polygon, NURBS, and subdivision surface modeling; texturing; basic animation; lighting; and rendering. Prerequisites: IT 5449.

## 5452 3D Animation and Effects

A continuation of IT 5451. Topics include: advanced texturing and rendering techniques, interaction of soft and rigid body solvers, dynamics, and complex manipulation of various three-dimensional attributes using nodes and connections in Maya.
Prerequisites: IT 5451 (minimum grade C).
5453 Web Development 1
2-3-3
An introduction to Web site design using HTML, XHTML, and cascading style sheets.
Prerequisites: None.
5454 Web Development 2
A continuation of IT 5453. Topics include: additional principles of site design, navigation, and functionality; using Dynamic HTML and JavaScript; and advanced use of cascading style sheets. Students must earn grade of C or higher to be eligible for continuation courses.
Prerequisites: IT 5291, IT 5453 (minimum grade C for both).
5455 Web Development 3 2-3-3
A continuation of IT 5454, emphasizing client-side scripting.
Prerequisites: IT 5320, IT 5454 (minimum grade C for both).
5456 Desktop Publishing: QuarkXPress
2-3-3
An introduction to desktop publishing techniques for creating, revising, and producing print and multimedia materials using QuarkXPress. Topics include: selecting appropriate page layouts, formatting text, positioning graphics, and applying appropriate typographic and design enhancements.
Prerequisites: IT 5441, IT 5443 (minimum grade C for both).
5457 Multimedia \& Web Design Capstone Project 3-3-4
Working in teams, students develop a Web-based product for an external client. Activities include: audience, client, and market analysis; designing product architecture and navigation schema; organizing materials; developing and producing content; and usability testing. Students present project results to reviewers. Students who are unable to complete the course successfully may make one additional attempt.
Prerequisites: Completion of all other Multimedia and Web Design degree requirements with a grade of C or higher.

5458 Web Development: Special Topics
2-3-3
A course on special topics or new technologies related to Web site design and development. Content and emphasis may vary from term to term. May be repeated for credit.
Prerequisites: IT 5454 (minimum grade C).

## IT - Information Technologies

## 5522 Audio 1: Principles of Audio Recording <br> 3-0-3

An introductory course on principles of audio and sound recording. Topics include: sound waves, acoustics and the audio spectrum, console and signal flow, equalization and compression, microphones and their placement, effects, digital audio formats, and MIDI basic concepts.
Prerequisites: None.

## 5523 Audio 2: Editing and Mixing

2-3-3
An introductory course on using the Pro Tools digital audio workstation and the Pro Control work surface. Topics include: session set-up, routing, patch bay, advanced signal flow, the Pro Tools software interface, and basic editing and mixing functions.
Prerequisites: IT 5522 (minimum grade C).

## 5524 Audio 3: Production and Sound Design

An advanced course on sound design and recording techniques for radio, television, and film. Topics include: voice-over recording and talent direction, creating and implementing sound effects, advanced music editing, and mix-to-picture techniques. Prerequisites: IT 5523, TC 5035 (minimum grade C for both).

## 5525 Multi-Track Recording

3-4-5
An advanced course on multi-track recording techniques from pre-production through final mix. Topics include: session flow and management and advanced microphone placement.
Prerequisites: IT 5523 (minimum grade C).

## 5526 Advanced Mix Techniques

A continuation of IT 5523, focusing on advanced mix techniques using five-channel (5.1) surround sound. Topics include: bass management, and recording for surround and final output. Prerequisites: IT 5523 (minimum grade C).

5530 Introduction to Broadcast Television Production 2-3-3
A course on key skills and roles for creating television news and other programs. Topics include: operation of camera, tape, chyron, teleprompter and audio controls; technical direction; studio lighting; field production; and content creation and development.
Prerequisites: IT 5220, IT 5221, TC 5035 (minimum grade C for all).

## 5531 Advanced Videography

2-3-3
A continuation of IT 5220, emphasizing advanced and specialized techniques for videography, gripping, and lighting.
Prerequisites: IT 5220.

## 5540 Digital Studio 1

2-3-3
A course on concepts and techniques for effective and creative communication using digital media. Topics include: designing layouts in a digital setting, using typography and color, and creating effective relationships between text and visual elements. Prerequisites: ART 1692, IT 5441, IT 5443 (minimum grade C for all).

## 5541 Digital Studio 2

2-3-3
A continuation of IT 5540. Students complete several digital design projects suitable for a professional portfolio, while demonstrating the ability to integrate several software applications to create finished products.
Prerequisites: IT 5540 (minimum grade C).

## 5543 Creating the 3D Animated Short

3-4-5
A continuation of IT 5452. Students work as a team to create a short animation of a story or script. Topics include: advanced techniques for three-diminsional modeling, lighting, rendering, and animation with Maya.
Prerequisites: IT 5452 (minimum grade C).

5545 Video Post-Production: 3D Special Effects 3-4-5
An introduction to Maya emphasizing its use as a video postproduction tool. Topics include: basic modeling, texturing, lighting, and dynamics; and animation principles and techniques applicable to video post-production.
Prerequisites: IT 5441, IT 5443 (minimum grade C for both).

5546 Audio/Video for Multimedia Applications
2-3-3
An introduction to audio/video hardware, applications, and
techniques, focusing on audio/video used for multimedia and Web products. Topics include: music editing and sound design, video capture and editing, camera and lighting techniques, and optimizing audio and video for Web distribution.
Prerequisites: IT 5410, IT 5420 (minimum grade C for both).

## 5570 Multimedia Portfolio Production <br> 1-2-2

A course in which students prepare a professional portfolio to describe their academic and work achievements, and complete professional networking activities. Multimedia professionals assess student portfolios.
Prerequisites: Completion of MID core courses with grades of C or higher.

## 5571 Graphic Design Capstone Project

3-3-4
Working in teams, students develop print graphics and computer graphics for an external client. Activities include: analyzing audience, client, and market; product design and planning; organizing materials; developing and producing content; and usability testing. Students present project results to reviewers. Students who are unable to complete the course successfully may make one additional attempt.
Prerequisites: Completion of all other Graphic Design degree requirements with grades of C or higher.

5580 Certified Internet Webmaster Foundations 2-3-3
A course that prepares students to take the Certified Internet Webmaster exam given by the CIW Certification Council. Topics include: search engines; Internet security; e-commerce basics; and computer network architecture, standards, and protocols.
Prerequisites: IT 5453.
Corequisites: IT 5454.

## 5598 Workshop in

Multimedia Information Design
Var-Var-Var
Group discussion and practice of selected topics related to multimedia information design. Course content and emphasis may vary from year to year.
Prerequisites: Instructor consent.

## 5599 Special Topics in

Multimedia Information Design Var-Var-Var
A course in which students who are seeking advanced standing or implementing independent research or specialized multimedia information design projects complete individual studies and special projects related to multimedia information design. Enrollment requires prior MID program chair and Dean of Information Technologies consent. May be repeated for credit. Prerequisites: Program chair consent.

## 9500 Cooperative Education -

Information Technologies (Alternating)
1-40-2
The student participates in a full-time (minimum of 36 hours per week) paid field learning experience related to the student's academic discipline and career goals. Students must adhere to the Information Technology Division's cooperative education policies and procedures.

ITE - Industrial Training
ITM - International Trade Management
ITP - Interpreter Training

Prerequisites: Full-time status; admitted to an IT degree program; 2.0 minimum GPA.

## 9501 Cooperative Education -

Infomation Technologies (Parallel)
1-20-1
The student participates in a paid field learning experience directly related to the student's academic discipline for 15 to 30 hours per week, while registered for a minimum of eight credit hours of program course requirements during that same term. The student must adhere to the division's cooperative education policies and procedures.
Prerequisites: Admitted to an IT degree program; 2.0 minimum GPA.

## ITD Industrial Design Technology

7805 Rapid Visualization Techniques 0-4-2
A course on concept sketching. Topics include: hand sketching using scaled perspective to generate, communicate, and present ideas graphically.
Prerequisites: None.

## ITE Industrial Training

8500 Problems-Mechanical Apprentice Var-Var-Var
Individual study and special projects pertaining to mechanical areas of specialization. Open to students with valid documented course academics, work experience, professional certification and/or licensing, or completed formal training programs.
Prerequisites: Completed formalized training program/apprenticeship.

## 8700 Problems-Electrical Apprentice

Var-Var-Var
Individual study and special projects pertaining to electrical/ electronic areas of specialty. Open to students with documented valid academics or work experience, professional certification and/or licensing, or completed formal training programs. Prerequisites: Completed formalized training program apprenticeship/licensing.

## 8900 Problems-Plumber/Pipefitter

Var-Var-Var
Individual study and special projects pertaining to plumber/ pipefitting areas of specialization. Open to students with valid documented course academics, work experience, professional certification and/or licensing or completed formal training programs. Prerequisites: Completed formalized training program/apprenticeship.

## ITM International Trade Management

2980 Introduction to International Business
An overview of international business and the institutions that affect business today. Topics include: the scope and challenges of international trade, concepts and theories, market entry strategies, cultural dynamics, business customs and practices, political environments, and legal systems.
Prerequisites: None.

## 2981 International Marketing

3-0-3
An overview of the components of international marketing. Topics include: determining export potential, international market research, internationalization of products, pricing methods, market entry strategies, promotional techniques, and long-term marketing planning. Prerequisites: None.

## 2983 Import and Export Essentials

A course on international order processing and shipping. Topics include: required documentation; selecting forwarders, carriers, and insurance; inter-company communication; responsibilities of all parties to the contract of carriage for shipments; and trade, tariff, and exchange regulations and restrictions.
Prerequisites: MKT 1880.

## 9252 Cooperative Education

International Trade Management
1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the ITM program, 2.0 minimum GPA.

## 9253 Cooperative Education

International Trade Management-Parallel
1-20-1
Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the ITM program, 2.0 minimum GPA.

## ITP Interpreter Training

1086 Beginning ASL 1
An introduction to American Sign Language. Topics include: ASL vocabulary; Deaf culture; grammar; and beginning conversational, comprehensive, and expressive skills.
Prerequisites: None.
1087 Beginning ASL 2
3-2-4
A continuation of ITP 1086. Topics include: ASL vocabulary; Deaf culture; grammar; and beginning conversational, comprehensive, and expressive skills.
Prerequisites: ITP 1086 or equivalent.

1088 Beginning ASL 3
3-2-4
A continuation of ITP 1087. Topics include: ASL vocabulary; Deaf culture; grammar; and beginning conversational, comprehensive, and expressive skills.
Prerequisites: ITP 1087 or equivalent.
1089 Advanced Fingerspelling
3-0-3
An advanced course on producing the letters of the manual alphabet and incorporating them into the interpreting process. Topics include: developing and practicing strategies that improve understanding of fingerspelling embedded in signed utterances, and improving receptive and expressive skills.
Prerequisites: ITP 1091 or equivalent.

1091 Intermediate American Sign Language 1
3-2-4
A course on the linguistics of American Sign Language. Topics include: receptive and expressive readiness skills for acquiring ASL targeted vocabulary and grammar, and fingerspelling.
Prerequisites: ITP 1088 or advisor consent.
1092 Intermediate American Sign Language 2 3-2-4
A continuation of ITP 1091. Topics include: written information on targeted grammatical features, receptive and expressive mastery of these features, targeted vocabulary items, and producing student-generated ASL sentences.
Prerequisites: ITP 1091 or equivalent.
1093 Intermediate American Sign Language 3
A continuation of ITP 1092. Topics include: additional information on targeted grammatical features, receptive and expressive mastery of prepared dialogues, interpreting English sentences into ASL, and producing short student-generated ASL narratives.
Prerequisites: ITP 1092 or equivalent.

## ITP - Interpreter Training

## 1094 Advanced American Sign Language 1

3-2-4
An advanced course on the linguistics of American Sign Language, emphasizing native-like signing. Topics include: demonstrating target vocabulary and grammatical features through prepared dialogues and short narratives, interpreting English paragraphs into ASL, and producing student-generated ASL dialogues. Prerequisites: ITP 1093 and pass assessment.

## 1095 Advanced American Sign Language 2

A continuation of ITP 1094. Topics include: additional practice of ASL communicative skills, vocabulary, and grammatical features; and continued development of expressive and receptive interpreting skills.
Prerequisites: ITP 1094 or equivalent.
1096 Advanced American Sign Language 3
A continuation of ITP 1095. Topics include: additional ASL vocabulary and grammatical features, and mastering simultaneous interpreting using short stories and student-generated dialogues. Prerequisites: ITP 1095 or equivalent.

## 5459 Beginning Fingerspelling

An introduction to expressive and receptive skills related to fingerspelling. Topics include: Lexical Borrowing and numbers. Prerequisites: None.

## 5460 Interpreting for the Deaf

3-0-3
A course that provides a framework for understanding the interpreting field. Topics include: the code of ethics and physical factors. Prerequisites: None.

5461 Preparation for ITP Practicum
3-0-3
An advanced course that combines American Sign Language with the cognitive process of interpreting. Topics include: the interpreter's role in various settings, the interpreting process, physical factors, and modeling and practicing language variations.
Prerequisites: ITP 1093 (minimum grade C) and pass assessment.

## 5462 Community Resources for Deaf

A course on human service agencies that serve the deaf population. Topics include: an overview of the laws and legal implications of interpreting situations.
Prerequisites: None.

## 5463 Role of Interpreter

3-0-3
A continuation of ITP 5460. Topics include: history, trends, and issues in the interpreting field. Includes information on the written portion of the RID National Certification Test.
Prerequisites: ITP 5460.

5464 Sign-to-Voice Interpreting 1
3-2-4
A course on improving receptive skills in preparation for sign to voice interpreting and transliterating situations.
Prerequisites: ITP 1093 (minimum grade C).

## 5465 Sign-to-Voice Interpreting 2

A continuation of ITP 5464. Topics include: receptive skills and skill development in transforming signed expressions into vocal expressions.
Prerequisites: ITP 5464 (minimum grade C).

## 5466 Sign-to-Voice Interpreting 3

3-2-4
A continuation of ITP 5465. Topics include: techniques to help the interpreter develop the skills and poise needed to handle frustrations and problems that arise in sign to voice interpreting and transliterating situations.
Prerequisites: ITP 5465 or equivalent.

5467 Sign-to-Voice Interpreting 4
3-2-4
A continuation of ITP 5466. Students learn advanced techniques in sign to voice interpreting and transliterating.
Prerequisites: ITP 5466 or equivalent.

## 5468 Deaf-Blind Communications

3-0-3
An intermediate to advanced course on the specific communication skill set for the deaf-blind population. Topics include: various communication needs of deaf-blind individuals, communication modes/languages, and application and feedback.
Prerequisites: ITP 1091 (minimum grade C).

## 5470 Transliterating 1

4-0-4
A course on transmitting spoken English into one of several Englishrelated or English-oriented varieties of manual communication for communication between deaf and hearing people.
Prerequisites: ITP 1093 (minimum grade C).

5471 Medical/Technical/Legal Interpreting
4-0-4
A course on technical sign vocabulary used in business, engineering, mathematics, and biology. Topics include: protocol and sign vocabulary for medical, mental health, social work, and legal interpreting settings.
Prerequisites: ITP 1093

## 5472 Specialized Interpreting

An introduction to ASL vocabulary related to sexual behavior/ sexual abuse and drug use/abuse. Topics include: increasing student comfort and skill level for interpreting in the areas of OB/GYN, Alcoholics Anonymous, Narcotics Anonymous, counseling, and court settings.
Prerequisites: ITP 1093
5474 Vocabulary Building for Interpreters
3-0-3
A course on developing receptive and expressive skills in sign language vocabulary emphasizing American Sign Language. Prerequisites: ITP 1091 (minimum grade C).

## 5475 Educational Interpreting 1

3-0-3
An overview of educational interpreting. Topics include: the educational setting, code of ethics, inservicing, the IEP process, and the Ohio Department of Education's Educational Interpreter Guidelines.
Prerequisites: ITP 1091 (minimum grade C).

## 5476 Educational Interpreting 2

Hands-on practice and feedback pertaining to expressive and receptive skills in educational settings. Classroom vocabulary focuses on several educational subjects. Topics include: the specific needs of learners at each age and how interpreters can best meet those communication needs.
Prerequisites: ITP 5475 (minimum grade C).

## 5477 Transliterating 2

4-0-4
A continuation of ITP 5470. Topics include: extensive hands-on practice and feedback related to expressive and receptive skills in transliterating and several different modes of English-related or English-oriented sign systems.
Prerequisites: ITP 5470 (minimum grade C).
5478 Religious Interpreting
3-0-3
A course emphasizing skills needed for interpreting/transliterating in religious settings. Topics include: vocabulary building and conceptual accuracy.
Prerequisites: ITP 1091 (minimum grade C).

## 5479 Theatrical Interpreting

 3-0-3A course on the art of interpreting for theater and related settings. Topics include: developing skills in the processes of script translation, preparation, and performance.
Prerequisites: ITP 1091 (minimum grade C).

## 5480 ITP Practicum 1

2-10-3
Students are assigned to various educational institutions and community agencies. Students spend a total of 10 hours per week observing, and subsequently assuming, the role of the interpreter under supervision. Students participate in weekly seminars. Prerequisites: ITP 5461 or equivalent.

## 5481 ITP Practicum 2

2-10-3
Students are assigned to a community or human service agency for the deaf for 10 hours per week to gain practice interpreting.
Students participate in weekly seminars.
Prerequisites: ITP 5480 or equivalent.

## 5482 ITP Practicum 3

2-10-3
Students assume interpreting responsibilities under the mentorship of interpreter(s) in an assigned agency or institution. Students prepare a portfolio for an exiting interview.
Prerequisites: ITP 5481 or equivalent.
5483 General Practicum
2-10-3
Students are assigned to various educational or community settings to either observe the interpreters or participate in the interpreting process under the appropriate supervision. Students spend nine to 12 hours per week at their assigned sites and participate in weekly seminars on campus.
Prerequisites: ITP 5461.
5499 Special Studies in Interpreter Training Var-Var-Var Individual study and special projects pertaining to interpreter training. Open to students wishing to conduct independent study and/or research under the supervision of a faculty member. Before registration, the student must have the plan of study approved by the program chair and the Dean of Humanities and Sciences. Prerequisites: ITP 1091.

## ITT Industrial Trades

1301 Principles of Machining 1
3-0-3
An introductory course in machining principles. Topics include: basic hand and layout tools, layout techniques, measuring instruments related to basic benchwork, and an introduction to the drilling and grinding family of machine tools.
Prerequisites: MAT 1171.

## 1302 Principles of Machining 2

A continuation of course ITT 1301 Principles of Machining 1.
Topics include: lathe, planning, milling operations, tooling, and in depth coverage of turning, facing, indexing, threading, boring, reaming, dovetail cutting, drilling, and helical milling operations. Prerequisites: ITT 1301.
Corequisites: MAT 1172.

## 1303 Principles of Machining 3

Introduction to computerized numerical controlled (CNC) machinery. Topics include: programming formats, terminology, and methods along with the binary number system, control tape encoding and decoding, and axis control. Emphasis on CNC milling operations. Prerequisites: ITT 1302.
Corequisites: MAT 1173.

1304 Principles of Machining 4
2-0-2
A continuation of ITT 1303 Principles of Machining 3. Topics include: programming for milling operations, linear and circular interpolation, cutter diameter compensation, G-Codes, M-Codes, and letter address commands for the CNC mill.
Prerequisites: ITT 1303.
1305 Principles of Machining 5
2-0-2
CNC lathe operations covering programming for turning operations. Topics include: linear and circular interpolation, tool nose radius compensation, G-Codes, M-Codes, letter addresses, word address commands for the NC lathe, and use of multiple repetitive cycles. Prerequisites: ITT 1303.

1306 EDM/Grinding Principles
2-0-2
Introduction to electrical-discharge machining(EDM), grinding operations, and machines. Topics include: surface, cylindrical, internal, and centerless grinding operations, abrasive and cutting materials of ceramic, diamond, and carbide as applied to grinding operations, and speed/feed rates and grinding fluids.
Prerequisites: ITT 1303.
1307 Machinery's Handbook
2-0-2
Practical application of the most widely used handbook for engineers, technicians, and tradesmen in the machine tool industry. Topics include: interpretation and application of tables, graphs, charts, and formulas.
Prerequisites: ITT 1302, MAT 1172.
1308 Introduction to Hydraulics
3-0-3
Introduction to fundamental hydraulic principles. Topics include: terms, graphic symbols, hydraulic actuators, directional control devices, hydraulic motors, and basic pump operation.
Prerequisites: MAT 1171.
Corequisites: MAT 1172.
1309 Distribution Systems (Hydraulics)
Introduction to hydraulic pumps. Topics include: pump
characteristics, displacement, and efficiency. Also covered are external and internal gear pumps, balanced and unbalanced vane pumps, radial and axial pumps, piston and bent-axis piston pumps, and their applications.
Prerequisites: ITT 1308.
1310 Pneumatic Systems
3-0-3
A course in basic principles of pneumatics. Topics include: properties of air, measuring air flow, compressed air, gas laws, pneumatic controls, air logic, graphic symbols, terms and definitions. Prerequisites: MAT 1172.

1311 Material Handling Systems
3-0-3
Design, application and maintenance of conveyor systems. Topics include: monorail, skate, roller, belt, hinged, chain, slant, and power feed conveyors along with setup, machine tool, and work cell interface.
Prerequisites: None.
1312 Transmission Systems (Mechanical)
2-0-2
A study of mechanical drive and transmission systems. Topics include: belt and chain drives, gear trains, planetary gear trains, screw mechanisms, shaft coupling, sheaves, sprockets, bearings, and speed control.
Prerequisites: MAT 1173.
1313 Preventative Maintenance - Drive Systems
3-0-3
Preventative maintenance and troubleshooting of drive and power
transmission systems and related components. Topics include: removal, installation, and alignment of gears, belts, gear trains, chains, sheaves, sprockets, shaft couplers, bearings, lubrication, and safety.
Prerequisites: ITT 1312.

## 1314 Heavy Machinery Transport and Rigging 3-0-3

A course in removal, installation, and setup of heavy machinery. Topics include: moving and rigging, foundations, setting bases, shimming and leveling, anchoring, repair, and safety. Prerequisites: ITT 1316.

## 1315 Fixtures and Gages

A course in workholding and measuring devices used in the machine tool trades. Topics include: design of workholding devices, jigs, and fixtures used in machining processes, introduction to the emerging concept of flexible fixtures along with considerations for clamping, loading, and locating the work piece. This course concludes with measuring devices (gages) such as plug, ring, snap, feeler, and indicator.
Prerequisites: ITT 1364.

## 1316 Equipment and Instrumentation

3-0-3
A course in basic equipment and instrumentation utilized in machine tool trades. Topics include: proper use, care, and selection of hand tools and hand held power tools, calibration, setup, and use of measurement gages and instrumentation. Prerequisites: None.

## 1317 Die Design 1 (Cutting)

A study of the design of cutting dies used in shearing operations. Topics Include: fine blanking, steel-rule, nibbling, piercing, trimming, compound, progressive, and transfer cutting dies. Prerequisites: ITT 1365.

## 1318 Die Design 2 (Forming)

2-0-2
Conventional practices in the design and construction of forming dies. Topics include: single pad, double pad, solid, and draw-forming dies.
Prerequisites: ITT 1365.

## 1319 Die Design 3

2-0-2
Conventional practices in the design and construction of sheet metal dies. Topics include: materials, spacers, stops, die blocks, pilots, assemblies, applications, layout and interpretation of multi-view drawings.
Prerequisites: ITT 1365.

## 1320 Metallurgy 1

2-0-2
An introduction to metallurgy and properties of ferrous metals.
Topics include: metallurgy of iron alloys and tool steel, alloying elements and their effects on steel, alloy numbering system, heat treatment, hardening, tempering, stress relief, normalizing, hot and cold forming.
Prerequisites: None.

## 1321 Metallurgy 2

2-0-2
A continuation of ITT 1320 Metallurgy 1 related to non-ferrous metals. Topics include: metallurgy and properties of alloys, copper, aluminum, and magnesium. Weldability and effects of welding related to corrosion, oxidation, and degradation of materials. Prerequisites: ITT 1320.

## 1322 Welding Processes 1

1-3-2
Introduction to basic welding processes. Topics include: safety,
heat transfer, energy, temperature, metal transfer, and deposition
rates. The three most common welding processes of oxyacetylene welding (OAW), shielded metal arc welding (SMAW), and gas metal arc welding (GMAW) are discussed and applied. Prerequisites: MET 7111.

## 1323 Welding Processes 2

1-3-2
A continuation of ITT 1322 Welding Processes 1. Topics include: shielded metal arc welding (SMAW) in flat and horizontal positions. Butt, lap, and tee joints are covered along with plate thickness.
Prerequisites: ITT 1322.
1324 Welding Processes 3
A continuation of ITT 1323 Welding Processes 2 using shielded metal arc welding (SMAW) for vertical up, down, and overhead positions. Topics include: stringer beads, (3G) square butt joint, (3F) lap joint, (3F) tee joints, and overhead (4G), (4F) welds. Prerequisites: ITT 1323.

1325 Welding Processes 4
1-3-2
An advanced course in shielded metal arc welding (SMAW). Topics
include: root, hot, filler, and cover passes, plate preparation, restarting a weld bead, preheating and post-heating, and weld testing. Prerequisites: ITT 1324.

1326 Welding Processes 5
1-3-2
Introduction to gas metal arc welding (GMAW). Topics include: equipment, power supplies, metal transfer, wire melting and deposition rates, weld pool control, spot welding, setup, flat position, (1G) and (1F) flat position, and horizontal (2G) and (2F) positions. Prerequisites: ITT 1325.

1327 Welding Processes 6
1-3-2
An advanced course in gas metal arc welding (GMAW). Topics include: vertical up (3G) and (3F) positions, vertical down (3G) and (3F) positions, overhead (4G) and (4F) positions, pulsed-arc metal transfer, and axial spray. Introduction to flux cored arc welding (FCAW), principles of operation, advantages, and practices. Prerequisites: ITT 1326.

## 1328 Welding Processes 7

1-3-2
Introduction to gas tungsten arc welding (GTAW). Topics include: principles of operation, types of tungsten, shaping, welding equipment, welding currents, shielding gasses and gas flow, torch angle, filler rod manipulation, contamination, and standard welding positions.
Prerequisites: ITT 1324.

## 1329 Welding Processes 8

1-3-2
An advanced course in gas tungsten arc welding (GTAW) of plate material. Topics include: mild steel, stainless steel, and aluminum plate materials, metal preparation, and practice of all welding positions with these materials.
Prerequisites: ITT 1328.

## 1330 Welding Processes 9 (Pipe)

1-3-2
Welding processes for pipe using (SMAW) and (GTAW). Topics include: pipe and tubing materials, joint preparation and fit up, welding in (1G) horizontal, (2G) vertical fixed, (5G) horizontal fixed, and (6G) 45 degree inclined positions, root penetration and reinforcement, backing gas, filler metal, hot pass, cover pass,
destructive and non-destructive testing.
Prerequisites: ITT 1324, ITT 1328.

## 1360 Interpreting Engineering Drawings 1

2-0-2
Introduction to basic blueprint reading related to mechanical and manufacturing industries. Topics include: sheet layout, line types
and purpose, orthographic projection, technical sketching, scales, measurements, and dimensioning.
Prerequisites: None.
Corequisites: MAT 1171.
1361 Interpreting Engineering Drawings 2
2-0-2
Interpretation of working, machine detail, assembly, and sectional drawings. Topics include: forgings, machine tapers, castings,
holes, dovetails, marks, dimensioning, drawing conventions, and shop terms.
Prerequisites: ITT 1360.

## 1362 Interpreting Engineering Drawings 3

2-0-2
A course in three-dimensional modeling and multiview drawings. Topics include: methods to enhance visual interpretation, depth of perception, and concepts of creating multiview drawings, sketches from 3-D models.
Prerequisites: ITT 1361.

## 1363 Interpreting Engineering Drawings 4

Introduction to geometric dimensioning and tolerancing based on ASME Y14.5M-1994 standard. Topics include: fundamental concepts of true position tolerancing, symbols, rules, definitions, and conventions used to describe the size, form, orientation, and location of part features.
Prerequisites: ITT 1362, MAT 1172.
Corequisites: MAT 1173.

## 1364 Interpreting Detail Drawings 1 (Tooling)

A course in interpreting detail and assembly drawings relative to tool machining processes. Topics include: interpreting detail and assembly drawings of small tools, tooling design, and detailing practices related to turning, milling, and boring operations. Prerequisites: ITT 1363.

1365 Interpreting Detail Drawings 2 (Die Making) 2-0-2 A course in interpreting detail and assembly drawings relative to the manufacture of dies. Topics include: interpreting detail and assembly drawings related to the fabrication of blank, pierce, and cutoff dies.
Prerequisites: ITT 1363.
1366 Interpreting Detail Drawings 3 (Gears and Cams) 2-0-2 A course in interpreting detail and assembly drawings related to the manufacture of gears and cams. Topics include: interpreting detail and assembly drawings related to the fabrication of gears, gear trains, and cams; interpreting displacement diagrams, symbols, terminology, and machining operations.
Prerequisites: ITT 1363.

## 1367 Interpreting Architectural Drawings

Interpreting building plans relative to identification and location of building utilities. Topics include: specs, symbols, and nomenclature related to waste, water, gas, steam, HVACR, electrical, fire, smoke, alarm and detection systems, and building construction details. Prerequisites: None.

## 1368 Interpreting Electrical Drawings

A course in interpreting electrical/electronic schematics and diagrams. Topics include: commonly used graphic symbols, identification of schematic, ladder, riser, block, control, connection, and outline diagrams; development of interpreting skills relative to signal flow and power distribution.
Prerequisites: None.
Corequisites: ITT 1901.

1369 Computer-Aided Drafting (POM)
2-0-2
An introductory course in computer-aided drafting geared towards physical facilities, maintenance and operations. Topics include: two-dimensional drawing creation, revision of existing physical layout drawings, basic commands, and symbol libraries. AutoCad software and associated support packages are utilized for this course of instruction.
Prerequisites: ITT 1367, ITT 1368.
1370 Interpreting Control Diagrams
2-0-2
Interpreting electrical/electronic control diagrams. Topics include: basic circuit analysis, relay logic control (ladder diagrams), programmable controls, devices, symbols, and basic troubleshooting. Prerequisites: ITT 1368, ITT 1918.

1371 Interpreting Power Distribution Diagrams
2-0-2
Interpretation of diagrams and drawings related to voltage and current distribution in commercial and industrial environments. Topics include: branch circuits, switch control, lighting, emergency power, over-current, calculations, specifications, NEC requirements, materials, and riser diagrams.
Prerequisites: ITT 1368.
1901 Introduction to Electricity Direct Current 2-0-2
Introduction to principles of Direct Current. Topics include: Ohms Law, Power Laws, Kirchhoff's Voltage and Current Laws, series and parallel circuits, steady state capacitance, and inductance.
Prerequisites: None.
Corequisites: MAT 1171.
1902 Introduction to Electricity Alternating Current 3-0-3
Introduction to principles of Alternating Current. Topics include: capacitive and inductive reactance, impedance, series and parallel RC, RL, and RLC circuits, resonant circuits, transformers, power factor correction, and three-phase systems.
Prerequisites: ITT 1901.
Corequisites: MAT 1172.

## 1903 Introduction to Magnetic Circuits

2-0-2
An introduction to the integral part magnetism plays in the development and application of generators, motors, and transformers. Topics include: magnetic fields, flux density, permeability and reluctance of magnetic materials, and Faraday's Law of Electromagnetic Induction.
Prerequisites: ITT 1902.
Corequisites: MAT 1173.

## 1904 Semiconductor Devices Principles

 and ApplicationsIntroduction to semiconductor theory, devices, and circuit applications. Topics include: diodes, rectifiers and regulators, transistors, small and large signal amplifiers, operational amplifiers,field-effect devices, silicon controlled rectifiers, uni-junction devices, DIAC's and TRIAC's.
Prerequisites: ITT 1902.

## 1905 Industrial Controls (Electrical)

An advanced course in electronic controls for D.C. and A.C. motors. Topics include: permanent magnet and D.C. shunt drive systems, SCR speed control, eddy current drives, A.C. variable speed drives, variable frequency drives, closed and open loop systems, and speed and torque characteristics.
Prerequisites: ITT 1904.
Corequisites: MAT 1173.

## 1906 Digital Electronics <br> 3-0-3

An introduction to digital logic theory, devices, and basic circuits. Topics include: binary, octal, and hexadecimal numbering systems, basic Boolean Algebra, basic logic gates and truth tables, latches, flip/flops, and basic circuit design.
Prerequisites: ITT 1904.

## 1907 Electronic System Diagnostics

2-0-2
A course in development of schematic analysis and troubleshooting techniques. Topics include: application of principles for analysis, failure, and correction of electrical circuits and devices; modification of circuit and device specification to increase reliability; and introduction to soldering techniques and printed circuit board repair. Prerequisites: ITT 1904.

## 1908 Practical Applications (Electrical)

3-0-3
Practical application of electrical systems and control theory for commercial and industrial facilities. Topics include: power systems, distribution, motors, controls, connection and interconnection methods.
Prerequisites: ITT 1902.

## 1909 Detection and Alarm Systems

1-3-2
Development and practical application of detection and alarm systems utilized in industrial, commercial, and residential settings. Topics include: motion, infrared, heat, smoke, fire, and carbon monoxide detection devices. Open and closed loop system design will be discussed as well as audio and video monitoring. Prerequisites: ITT 1904.

## 1910 Electrical Maintenance Methods

A course in testing and maintenance practices for electrical systems. Topics include: testing and maintenance procedures for protective insulation, over-current devices, transformers, controls and distribution systems, and instrumentation.
Prerequisites: ITT 1903, ITT 1903.

## 1911 National Electric Code (NFPA 70)

2-0-2
A study of national and local codes. Topics include: residential, commercial, and industrial electrical construction practices, equipment, code interpretation, and limitations.
Prerequisites: ITT 1902.

## 1912 Principles of Electricity (HVACR)

1-3-2
Introduction to electrical applications related to environmental control systems in commercial and industrial environments. Topics include: analysis and troubleshooting of control circuits, phase analysis and balancing, interpreting ladder diagrams, identification and testing of system components, and electrical safety.
Prerequisites: ITT 1902.

## 1913 Electronic Devices for HVACR Systems

1-3-2
Introduction to semiconductor devices utilized in HVACR systems. Topics include: fundamentals of semiconductor theory, circuit analysis, troubleshooting, introduction to programmable logic controllers, and peripheral networks used in conjunction with PLC's. Prerequisites: ITT 1912.
Corequisites: ITT 1914.

## 1914 HVAC Control Systems 1

1-3-2
A course in diagnosis and troubleshooting of HVAC controls and systems. Topics include: analysis of industrial/commercial HVACR systems, troubleshooting and maintenance of hydraulic, pneumatic, and electronic/electrical control systems and components.
Prerequisites: ITT 1912.
Corequisites: ITT 1913.

1915 HVAC Control Systems 2
1-3-2
Advanced control components and systems related to larger and more complex HVACR systems. Topics include: automatic, semiautomatic, and hot-gas defrost controls, ice bank and de-ice controls, limit, fan, airflow, and distribution controls, electronic, timer, hydronic, and multi-stage thermostat controls and computer based system controllers.
Prerequisites: ITT 1914.

1916 HVACR Systems Analysis and Troubleshooting 1-3-2
A practical hands-on course in diagnostics and troubleshooting commercial/industrial HVACR systems and related components. Topics include: three phase power systems, relay circuits, compressor and motor faults, air flow and distribution problems, thermostat and sensor malfunctions, corrective actions, and selection and proper use of instrumentation.
Prerequisites: ITT 1914.

## 1917 Electrical Systems (Physical Plant)

2-0-2
An overview of electrical systems common to commercial/industrial facilities. Topics include: sub stations and feeder circuits, wiring methods, metering, over-current devices, energy consumption, conservation and management, and computer integration for system control and management.
Prerequisites: ITT 1912.
1918 Rotational Machinery 1 (Systems and Controls) 2-0-2 Introduction to D.C. and A.C. machinery. Topics include: system operation and diagnostics, component identification (physical and graphic), manual and automatic starters, wiring fundamentals, and instrumentation.
Prerequisites: ITT 1902, ITT 1903.
1919 Rotational Machinery 2 (Systems and Controls) 2-0-2 A continuation of ITT 1918 Rotational Machinery 1. Topics include: pilot devices (pressure, float, foot, joystick, selector, limit, and pushbutton switches), timers, sequencers, jogging, reversing, and across the line starting.
Prerequisites: ITT 1918.
1920 Rotational Machinery 3 (PLC's)
2-0-2
Introduction to programmable logic controllers. Topics include: basic components of the PLC, program scan, addresses, programming functions, binary and binary coded decimal numbers, analog inputs and outputs, applications, and identification of PLC's most commonly used in industry.
Prerequisites: ITT 1919.

1921 Rotational Machinery 4 (Advanced Controls)
2-0-2
Analysis of acceleration and deceleration circuits utilized in industrial and commercial motor circuits. Topics include: starter circuits, solid-state acceleration controls, deceleration and braking methods, plugging and antiplugging circuits, variable speed controls, and reversing circuits.
Prerequisites: ITT 1919.
1922 Rotational Machinery 5 (Advanced PLC's)
2-0-2
Advanced programming functions for medium to large scale programmable logic controller networks. Topics include: programming for timers, counter, sequencers, and mathematical functions, program debugging, and equating programming functions to hard-wired control functions.
Prerequisites: ITT 1920.
industry peripherals. Topics include: writing code, interfacing PLC hardware to machine controls, diagnostics, and troubleshooting. Prerequisites: ITT 1922.

## 1924 Electrical Safety OSHA

(Standard 29 CFR-1910.300-399)
A review of federal regulations relative to electrical safety as outlined by Title 29, Part 1910.300 to 1910.399 of The Code of Federal Regulations Relating To Labor (OSHA).
Prerequisites: None.
1930 Principles of Refrigeration and Air Conditioning 1 3-0-3 An introduction to the basic laws of refrigeration. Topics include: heat and methods of heat transfer, compressors, refrigerants, charging and evacuation of refrigerants, evaporative condensers, heat exchangers, temperature controls, special tools and service equipment, troubleshooting, and basic service procedures. Prerequisites: ITT 1912.

1931 Principles of Refrigeration and Air Conditioning 2 2-0-2 A continuation of ITT 1930 Principles of Refrigeration and Air Conditioning 2. Topics covered in this course are geared towards industrial and commercial systems. Topics include: water towers, evaporative and air cooled condensers, water chillers, water treatment, pumps, and roof mount systems.
Prerequisites: ITT 1930.

## 1932 Practical Sheet Metal Layout

1-3-2
A hands.on course in sheet metal layout and fabrication for HVACR ducting systems. Topics include: safe work practices, hand and stationary tools, measurement, materials, pattern marking, methods of layout for ductwork, curved heel, throat patterns, guards, and ventilators.
Prerequisites: None.
Corequisites: MAT 1171.
1933 Heating Principles 1 (Gas)
1-3-2
Introduction to gas combustion principles and systems. Topics include: natural and LP (liquefied petroleum) gas combustion, burners, manifolds, ignition systems, valves, dampers, safety devices, limit switches, thermocouples, heat exchangers, venting, and thermostats as applied to furnace, boiler, and hydronic systems. Prerequisites: ITT 1912.

## 1934 Heating Principles 2 (Oil)

1-3-2
Introduction to oil combustion principles and systems. Topics include: atomization and vaporization, high and low pressure gun-type burners, rotary and gear type pumps, ignition systems, primary, stack, sensing and thermostat controls, air flow control dampers, fuel oil grades, and an introduction to resistive and infrared radiant heating.
Prerequisites: ITT 1912.

## 1935 Psychrometry

A study of air mixtures and their controls. Topics include: specific heat of dry air and its volume, heat of water, heat of vaporization, condensation, specific heat of steam in reference to moisture mixed with dry air, interpretation of psychrometric charts, air flow, venting, filtering, instrumentation, and balancing mixtures. Prerequisites: ITT 1933.

## 1936 Principles of Plumbing and Pipefitting

3-0-3
Introduction to the design of piping systems for supply and waste. Topics include: materials, installation, equipment and tooling, design of waste piping systems for evacuation of water, air, chemicals, and raw sewage.
Prerequisites: MAT 1171.

1937 Piping Distribution Systems
3-0-3
Development of piping systems for gas, water, steam, chemical, and waste. Topics include: materials selection and specifications, cutting, threading, jointing, couplers, reducers, control valves, calculations for flow rate, pipe size, friction loss, and safe working pressure. Preventative maintenance, selection and proper use of tools, and safety procedures are also discussed.
Prerequisites: MAT 1171.

## 1938 Boiler Operations

4-0-4
An introductory course in low and high pressure boiler operation. Topics include: methods of construction, terminology, code requirements, methods of fire draft control, water feeding, water treatment, maintenance proceedures, and safety.
Prerequisites: None.
1939 Stationary Steam Engineer 1 2-0-2
A preparatory course for the Ohio Steam Engineer's License exam. Topics include: boiler construction and operation, water tube boilers, feed-water regulators, pumps, engines, impulse and reactionary turbines, uni-flow, and slide valves.
Prerequisites: ITT 1938.
1940 Boiler Efficiency
2-0-2
An overview of current methods used to increase the efficiency of boiler operations. Topics include: construction, installation, and retrofit methods used to reduce costs, improve boiler efficiency, and increase safety of boiler operations.
Prerequisites: ITT 1939.
1941 Mechanical Systems (Physical Plant)
2-0-2
An overview of mechanical systems common to commercial/ industrial facilities. Topics include: permits, licensing, inspection, certification, sequencing of construction, installation of heating, refrigeration, air conditioning, ducting, air handling, plumbing for new construction, and modification of existing structure.
Prerequisites: ITT 1930, ITT 1933, ITT 1935.

## 1942 Energy Management

2-0-2
A course in current practices in energy management and conservation in commercial, industrial, and residential physical facilities. Topics include: management of HVACR systems, power and lighting systems, recovery and recycling, and the introduction of computer controls into the energy management system.
Prerequisites: None.

## 1943 Occupational Safety

2-0-2
An overview of state and federal regulations and standards to provide students with knowledge and skills in accident prevention. Emphasis on OSHA and EPA regulations.
Prerequisites: None.
1944 Valve Maintenance
1-3-2
A course of instruction in valve maintenance, repair, inspection, and installation. Topics include: gate, globe, control, diaphragm, and butterfly valve construction, methods of inspection, disassembly, lapping, reassembly, and installation.
Prerequisites: ITT 1937.

1950 Sheet Metal Fabrication 1
1-3-2
A course in sheet metal layout and fabrication. Topics include: geometric principles, terms, and definitions; elbow, tee,(y) and branch layout patterns, develop plane and elevations of round pipe fittings, layout patterns using parallel line methods, pattern labeling, and safe work practices.
Prerequisites: ITT 1932.

## 1951 Sheet Metal Fabrication 2

A continuation of ITT 1950 Sheet Metal Fabrication 1. Topics include: layout patterns using radial line development and triangulation methods, develop duct run patterns, pattern transfer using scribe lines, generate cut list, brake, shearing, seam, and joint construction.
Prerequisites: ITT 1950.

## 1952 Precision Sheet Metal Fabrication <br> 1-3-2

A course in sheet metal layout and fabrication where exacting tolerances are required. Topics include: introduction to and use of square combination set, precision steel rule, micrometer, vernier calipers, dividers, and auto center punch precision tools; layout techniques for fabricating precision parts, close tolerance machining methods, fabricating single and multi-piece precision parts, construction of precision assemblies, and inspection. Prerequisites: ITT 1951.

## 1970 Introduction to Carpentry

1-3-2
A course in basic carpentry for the facilities operation and maintenance individual. Topics include: selection and proper use of hand and power tools, general repairs, wood and metal stud construction of walls, door and window openings, basic blue print reading, and safety.
Prerequisites: MAT 1171.
Corequisites: ITT 1973.

## 1971 Intermediate Carpentry

1-3-2
A continuation of course ITT 1970 Introduction to Carpentry with emphasis on rough carpentry. Topics include: building layout, fabrication of concrete forms, roof, floor, exterior wall, and stair framing; interior partitions, ceiling joists, backing, blocking, bases, and steel framing.
Prerequisites: ITT 1970.

## 1972 Advanced Carpentry

1-3-2
Finish carpentry and engineered materials. Topics include: interior doors and frames, trim, stairs, floors, cabinets, and countertops. Fabrication, milling, and installation of engineered materials (formica, corian, aconite, wilsonart).
Prerequisites: ITT 1971.

## 1973 Carpentry Tools and Equipment

3-0-3
A course on hand, portable power and stationary tools common to the fields of carpentry and cabinet making. Hand tools include: layout, cutting, boring, fastening and demolition. Portable power and stationary tools include: circular, radial arm, miter, and table saws; planers, routers, sanders, jointers, setup, and safe operation. Prerequisites: None.
Corequisites: ITT 1970.

## 1974 Estimating Methods

2-0-2
A course in projecting costs and eliminating overruns relative to material, equipment, transportation, and labor. Topics include: writing specifications, bid preparation and presentation, basic cost accounting, record keeping, and computer applications. Prerequisites: None.

1975 Construction Site Preparation 1
A review of practices and procedures for site preperation for new construction. Topics include: building codes, materials, equipment, and instrumentation used to prepare the building site. Prerequisites: None.

1976 Construction Site Preparation 2
2-3-3
A continuation of course ITT 1975 Construction Site Preparation 1
with emphasis on the Level-Transit and its use for preparing the building site. Topics include; Level-Transit nomenclature, setup, and operation, measuring differences in grade elevations, transfering grade elevations, layout of building lines, vernier scale reading, establishing points on a line, and staking out the site.

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\text { Prerequisites: ITT } 1975 .
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## 1978 Safety and Health Regulations

for Construction (1926)
3-0-3
A review of federal regulations as outlined by Title 29, Part 1926, Section 1 of The Code of Federal Regulations Relating to Labor(OSHA). All subparts (A-Z) from general interpretations to toxic and hazardous substances will be covered.
Prerequisites: None.

## 1979 Lead Abatement and Hazard Control

3-0-3
A course in current practices for lead abatement and hazard control techniques. Topics include: proper hazard control stratagies and safe work practices for a variety of abatement technologies for interior and exterior dust, paint, and soil. Findings from a series of recent studies will be reviewed for efficacy, applicability, cost, regulatory concerns, dust generation, and hazardous material generation for different abatement techniques.
Prerequisites: None.

1980 Scaffolding and Platforms
2-3-3
This course provides a practical hands-on approach to scaffolding and platform construction. Topics include: light, medium, and heavy duty fabrication of single pole, independent pole, tube and coupler, outrigger, square, horse, bracket, and needle beam scaffolds; ladder type platforms, load requirements, bracing, planking, ledgers, toeboards, guardrails, tie-ins, and anchoring as required by OSHA Regulations (Standards-29 CFR-1910.28).
Prerequisites: ITT 1970, ITT 1973.
1990 Plumbing Codes (State of Ohio)
2-0-2
A study of State Codes as it regulates environmental sanitation for the protection of public health. Topics include: materials, fittings, fixtures, installation, and maintenance to provide adequate supplies of potable water and removal of water-borne wastes. Prerequisites: None.

1991 Plumbing Principles 1
1-3-2
An introduction to installation principles and practices. Topics include: water supply, hot water supply, and waste piping for residential and small commercial facilities. Jointing methods of screwed threads, cast iron no-hub, sweat solder, and solvent welding are also covered.
Prerequisites: ITT 1936.
Corequisites: ITT 1990.
1992 Plumbing Principles 2
1-3-2
Installation principles and practices for large commercial and industrial facilities. Topics include: assembly and offset problems, large scale water supply, distribution and waste piping, and further practice in joint applications.
Prerequisites: ITT 1991.
1993 Plumbing Construction Practices
2-3-3
A course to develop fundamental knowledge and skills needed to safely function in plumbing activities on a construction site. Topics include: sizing and code requirements for underground piping, interpretation of construction prints and drawings, rigging for plumbing construction, trenching, shoring practices, and construction safety.
Prerequisites: ITT 1975, ITT 1992.

1994 Water Heating Systems
A course on operation, installation, maintenance, and repair of steam and hot water systems. Topics include: code requirements, pipe sizing, air elimination, circulation pumps, heat converter and boiler sizing.
Prerequisites: MAT 1172, ITT 1992.

1995 Drain, Waste, and Vent Systems
A course in construction of drainage, vent, and sanitary waste disposal systems. Topics include: code requirements, types of drainage systems, sizing drainage systems, allowable materials, grading drainage systems, building drainage, sewer systems, traps, interceptors, ejectors, and sump pumps.
Prerequisites: MAT 1172, ITT 1992.

## 1996 Gas Piping and Venting

2-3-3
A course in provision of gas supply, distribution, and gas appliance installation. Topics include: code requirements, types of gas, principles of combustion, piping materials, fittings, valves, manifolds, burners, sizing, venting, and safety.
Prerequisites: ITT 1992.

## JOU Journalism

## 1031 News Writing 1

An introduction to basic principles of journalism, emphasizing techniques for reporting and writing news stories. Laboratory activities involve preparation of materials for the College newspaper or other publications.
Prerequisites: Six hours of English composition.

## 1032 News Writing 2

A continuation of JOU 1031. Topics include: techniques for reporting and writing complex news stories and feature stories; and design, editing, and production of materials for varied forms of print journalism. Laboratory activities involve preparation of materials for the College newspaper or other publications. Prerequisites: JOU 1031.

## 1033 Journalism Practicum

Practical journalism laboratory experience. Topics include: writing, editing, and production of the College newspaper or other publications. May be repeated for credit.
Prerequisites: JOU 1032.

## LAW Management

1823 Business Law 1
A course on fundamental principles of business law. Topics
include: contracts, negotiable instruments, and agencies.
Prerequisites: None.
1824 Business Law 2
A continuation of LAW 1823. Topics include: government regulations, trust, and insurance.
Prerequisites: LAW 1823.

## 1825 Hospitality Law

3-0-3
A comprehensive study of fundamental principles of hospitality, hotel, motel, and tourism law concerned with the various public callings. Topics include: the essential laws including federal, state, and administrative laws for making responsible decisions in complex and diverse hospitality operations.
Prerequisites: None.

## 1827 International Law

A course on the three basic systems of international law. Topics
include: the influence of a nation's culture on its legal system, laws involving the rights and duties of states, intergovernmental organizations that affect legal relations between nations, and legal issues that affect foreign travel and international business transactions. Prerequisites: None.

1828 Family Law 3 3-0-3
A comprehensive overview of the various areas comprising family law including the laws of marriage, dissolution, and divorce; prenuptial agreements; child custody and visitation; child support and collection; paternity; juvenile law; and adoption. The course focuses on common law concepts and legal procedures.
Prerequisites: LAW 1823.

1829 Litigation
3-0-3
A course on procedural aspects of criminal and civil litigation within the U.S. legal system. The Federal Rules of Civil Procedure and The Federal Rules of Criminal Procedure will be utilized and some state and local procedural rules. Includes trial and appellate procedure in federal and state courts.
Prerequisites: LAW 1823.

## 1830 Legal Research 1

3-0-3
An introductory course on legal research. Topics include: an overview of the U.S. legal system; types of law; purposes and uses of research; researching primary and secondary authority; citation procedure and format; research strategies; and computer research including LEXIS, WESTLAW and CD-ROM. Students use local law libraries.
Prerequisites: LAW 1829.

## 1831 Legal Research 2

3-0-3
A continuation of LAW 1830. Topics include: drafting and writing case, trial and appellate briefs; pleadings; internal and external memoranda; motions; discovery documents; persuasive writing. Emphasizes shepardizing and proper citation and formatting. Prerequisites: LAW 1830.

## 1838 Legal Ethics

An introduction to the codes of ethics that regulate the practice of law, including support staff. Topics include: Code of Professional Responsibility and various paralegal codes. Coursework includes reviewing individual canons and in-depth review of case studies applicable to each.
Prerequisites: None.
1839 Bankruptcy Law
An introduction to federal bankruptcy law and practice. Topics include: state exemptions and state Uniform Commercial Code applications, bankruptcy and accompanying petitions, exemptions, the automatic stay, and creditor distinctions. Students draft petitions and review case studies to gain practical application skills. Prerequisites: None.

1875 E-Commerce Law and Regulation
A course on the legal and social environment of e-commerce.
Topics include: uniform commercial code; enforceability of electronic agreements; evidentiary problems; privacy; consumer rights; intellectual property as it relates to e-commerce; criminal statutes; and trans-border issues.
Prerequisites: None.

## LBR Labor Relations

1535 Introduction to Labor/Management Relations 3-0-3
A course providing a general overview of the historical, legal,
and current status of labor/management relations in union and

LBR - Labor Relations<br>LH - Landscape Horticulture

non-union environments in the public and private sectors. Topics include: labor economics, labor law, labor movements, and the concept of relative bargaining power.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS scores.

## 1537 Negotiation and Dispute Resolution

3-0-3
A course on the theory and practice of negotiations. Topics include: personal and business negotiations, collective bargaining, bargaining power, strategies and tactics, impasse procedures, third party neutrals, private and public sector legal structures and considerations. Students participate in a bargaining simulation. Prerequisites: LBR 1535 or equivalent.

## 1538 Case Studies in Labor Relations <br> 3-0-3

A course on employee and labor relations. Topics include: application of labor laws, grievance, arbitration, and alternative dispute resolution.
Prerequisites: LBR 1535 or equivalent.

## 1539 Introduction to Employment

 and Workplace Law 1 3-0-3A course on the major federal legislation regarding employment rights and responsibilities from the viewpoints of the manager and the employee. Topics include: public policy regarding hiring, EEO, ADA, FMLA, sexual harassment, and developing legal trends.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS scores.

## 1540 Introduction to Employment and Workplace Law 2

3-0-3
A continuation of LBR 1539. Topics include: major legislation regarding FLSA, safety, workers' compensation, age discrimination, unemployment compensation, and developing trends in employment law.
Prerequisites: LBR 1539 or instructor consent.

## LH Landscape Horticulture

3500 Orientation to Horticulture Occupations
An introduction to the various horticulture occupations. Topics include: benefits, working conditions, abilities needed, and job levels within the horticulture industries.
Prerequisites: None.

## 3501 Soils and Plant Nutrition <br> 3-2-4

A course on the formation and physical, chemical, and biological properties of soils that affect plant growth.
Prerequisites: None.

3502 Horticulture Science
2-2-3
A course on plant classification, structures, physiology, and development, and the environmental conditions that affect plant growth. Prerequisites: None.

## 3504 Woody Plant Materials 1

2-3-3
The study of woody plants primarily grown by nurseries and found in the landscape and secondarily found in naturalized settings of Ohio. Topics include: deciduous and evergreen trees, shrubs, and vines with emphasis on identifying features, culture, and landscape use. Weekly plant walk field trips are required.
Prerequisites: None.

## 3505 Introduction to Herbaceous Plant Materials 2-2-3

A course on the classification, identification, and general cultural requirements of annuals, perennials, bulbs, and roses commonly used in garden plantings. Topics include: researching theme gardens, and basic bed design. Field trip required.
Prerequisites: None.

3506 Nursery Management 1
2-2-3
A course on the techniques and practices used in the commercial production of field or containerized landscape plants, nursery business management, organization, culture, irrigation, and pruning. Field trips required.
Prerequisites: None.
3507 Arboriculture
2-3-3
A course on the commercial arboriculture business. Topics include: the diagnosis and treatment of tree ills, principles and techniques used to protect trees from disease and damage, pruning, removal, and climbing safety. Field activities required.
Prerequisites: None.

3508 Turfgrass Management
2-2-3
A course on turfgrass management principles and practices of identification. Topics include: growth, uses, establishment, and pest control of turfgrass areas. Field trips required.
Prerequisites: None.
3509 Landscape Design 1
2-3-3
A course in landscape development for residential sites. Topics include: the design process, graphics, and lettering. Students must provide drawing tools. Field trips required.
Prerequisites: None.
3510 Small Engine Maintenance \& Repair
2-2-3
A study of the operation and maintenance of small gasoline engines with emphasis on safety and troubleshooting. Prerequisites: None.

3511 Introduction to Landscape Construction 2-3-3 A course on selecting and working with materials such as wood, stone, concrete, brick, and interlocking pavers used in landscape feature construction. Topics include: measuring, site layout, grading, drainage, and erosion control and hand and power tool use. Field trips required.
Prerequisites: LH 3509.

## 3513 Advanced Landscape Construction

2-3-3
A course on advanced techniques of landscape construction.
Topics include: constructing decks, patios, walkways, retaining walls, steps, and water features. Field trips required.
Prerequisites: LH 3511.
3515 Woody Plant Materials 2
2-3-3
A course on woody plants grown by nurseries and used in the landscape. Topics include: novel plants found in arboreta; plants in naturalized settings in Ohio; and deciduous and evergreen trees, shrubs, and vines with emphasis on identifying features, culture, and landscape use. Weekly plant walk field trips required.
Prerequisites: None.
3516 Herbaceous Plants 2
2-2-3
A course on the design, long-term establishment, selection, maintenance, and propagation of herbaceous plants. Prior gardening experience or the successful completion of LH 3505 is recommended before taking this course. Field trips required. Prerequisites: LH 3509.

3517 Computer Aided Landscaping Drafting
An introductory course on the use of computers in landscape design. Topics include: the techniques of generating plot plans, planting plans, and presentation drawings used in landscape contracting.
Prerequisites: LH 3509.

## 3518 Landscape Design 2

2-3-3
A continuation LH 3509, with progressively more difficult problems. Topics include: basic details of landscape architectural construction grading, construction, drainage, and irrigation factors.
Prerequisites: LH 3509.

## 3519 Landscape Contracts and Specifications

3-0-3
A study of planting design and plan presentation. Topics include: cost estimates, procedures, specifications, and types of contracts. Students examine typical plantings in the field.
Prerequisites: LH 3511.

## 3520 Horticulture Lab

0-3-1
Supervised practical experience carried out in a structured environment. Topics include: installation and maintenance of landscape plantings and operation of equipment and vehicles common to the industry. Field trips required.
Prerequisites: None.

## 3523 Horticulture Entomology

2-2-3
A course on principles and practices in diagnosing and controlling insect pests on various horticultural crops and integrated pest management principles. Field trips required.
Prerequisites: None.

## 3524 Plant Pathology

2-2-3
A course on principles and practices in diagnosing, preventing, and controlling plant diseases on various horticulture crops. Field trips required.
Prerequisites: None.

## 3525 Principles of Plant Propagation

2-2-3
A study of the commercial sexual and asexual propagation techniques of woody and herbaceous plants. Topics include: principles and techniques to propagate common plants through seed, cuttings, and grafting. Lab activities and field trips required. Prerequisites: LH 3502.

3526 Introduction to Golf and Turf Management 1-1-1 A course on facility requirements; rules of major sports; organization, staffing, resource management, and the special needs and concerns of golf courses, athletic facilities, and lawn care operators. Field trips required.
Prerequisites: None.
3528 Greenhouse and Garden Center Management 2-3-3 A course on principles and practices in controlling the greenhouse environment for plant growth and sales. Topics include: growing, marketing, retailing, purchasing, inventory, and customer service. Prerequisites: None.

3529 Landscape Grading, Drainage and Surveying 2-3-3 An introductory course in site preparation. Topics include: site assessment, establishing grades, soil conservation and improvement, surface and sub-surface drain systems, cut and fill calculations, legal issues, and equipment operation and safety. Field trips required.
Prerequisites: MAT 1161.
3530 Horticulture Seminar
1-0-1
Guest speakers and field trips dealing with current industry topics. Prerequisites: None.

## 3532 Landscape Management

2-3-3
A course on principles and practices involved in maintaining ornamental plants. Topics include: planting, fertilizing, pruning,
pest control, and other related maintenance practices. Field projects required.
Prerequisites: None.

## 3533 Principles of Irrigation

2-2-3
A study of irrigation theory, design, and cost estimation for residential and light commerical irrigation systems.
Prerequisites: None.
3534 Interior Plantscaping
2-2-3
A course on identification, culture, and maintenance of tropical plants used in residential and commercial interior plantings. Field trips required.
Prerequisites: None.
3535 Woody Plant Materials $3 \quad$ 2-3-3
A course on plants commercially available and widely used in the landscape and nursery industry, cultivar distinctions, and landscape use. Field trips required.
Prerequisites: LH 3504, LH 3515.
3536 Turfgrass Culture
2-2-3
An in-depth look at the turf environment from establishment through renovation. Topics include: modifying soil, selecting turf species and cultures, managing thatch, and fertilization practices. Field trips required.
Prerequisites: LH 3508.

## 3537 Turfgrass Pests

A course on insects, diseases, weeds, and other pests that affect turf grasses. Topics include: diagnosing and managing these problems.
Field trips required.
Prerequisites: LH 3508.

## 3538 Turfgrass Practices

2-2-3
A course on the special concerns of athletic turf, golf courses, and the commercial lawn care industry. Research project and field trips required.
Prerequisites: LH 3508.
3539 Landscape Design 3
2-3-3
A continuation of LH 3518. Topics include: applying design theory; landform design; using water in garden design; advanced graphic skills including section, elevation, isometric, and perspective techniques; and computer applications in design. Course projects emphasize client contact and sales presentation skills.
Prerequisites: LH 3518.

## 3540 Introduction to Floral Design

A basic course on principles of making simple flower arrangements and corsages. Topics include: types of design, style, principal tools, equipment, materials, foliage, and flower types.
Prerequisites: None.
3544 Advanced Floral Design
A continuation of LH 3540. Topics include: complex designs such as wedding, hospital, church, and funeral work.
Prerequisites: LH 3540.

3546 Computer Aided Landscape Drafting 2
2-3-3
A continuation of LH 3517. Topics include: advanced skills in plot plans, planting plans, and presentation drawings.
Prerequisites: LH 3517.
3547 Photo Imaging for Landscape Design
2-3-3
An introductory course on computer use in developing photo/

## LH - Landscape Horticulture <br> LIT - Literature

realistic images of proposed landscape designs. Topics include: techniques such as scanning, scaling, color selection, and image editing. Prerequisites: None.

3548 Cemetery Operations \& Facilities Management 2-2-3
An overview of cemetery operation management issues. Topics include: sales and marketing, customer relations, investments for perpetuity, planning and development, record keeping, interment processing, and building and facilities management. Self-study research, projects, and field trips required.
Prerequisites: DE 0005, DE 0011 or appropriate reading and writing COMPASS test scores.

## 3549 Pesticide Safety and Application

Students will study the uses and applications of horticultural chemicals, including insecticides, herbicides, fungicides, and other products. Emphasis will be placed on safety and proper selection of chemicals. Students taking this course will also take the Ohio Department of Agriculture Pesticide Applicator License exams as part of the course.
Prerequisites: None.
3550 Golf Course Management 3-2-4
A course on developing and managing modern golf courses. Topics include: layout and construction, course management systems, maintenance, budgeting, and record keeping.
Prerequisites: LH 3508, LH 3526.
3552 Installation and Maintenance of Irrigation Systems 2-2-3
A practical course for the study of installation and maintenance of residential and light commercial irrigation systems. Active participation and classroom exercises help students learn commonly accepted methods of installation and troubleshooting. Field trips may be required.
Prerequisites: LH 3533 or program chair consent.

## 3554 Athletic Field Management

An in-depth study of athletic field management for school, municipal, and professional sports operations. Topics include: turfgrass selection, cultural practices for turf growth enhancement, practices for playability enhancement, field setup, existing field renovation.
Prerequisites: LH 3501, LH 3508 or program chair consent.

## 3556 Advanced Turfgrass Management

An advanced course on practices and culture of turfgrass management presented from a practical application perspective. Students learn how to develop turfgrass programs and budget for business success in the green industry. Research project and field trips required.
Prerequisites: LH 3501, LH 3508.
3599 Special Topics in Landscape Horticulture Var-Var-Var Individual study and projects pertaining to Landscape Horticulture topics. Open to students by special arrangement with the program chair and the dean/designee of the Business Technologies Division. Prerequisites: None.

## 9225 Cooperative Education

Landscape Horticulture/Turf Management 1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the LH program, 2.0 minimum GPA.

## 9245 Cooperative Education

 Landscape Horticulture - Parallel1-20-1
Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the LH program, 2.0 minimum GPA.

## LIT Literature

1040 Survey of American Literature to 1860
3-0-3
Chronological survey of American authors from the colonial period to the beginning of the Civil War. Topics include: the major
historical and cultural issues of their times.
Prerequisites: Nine credits of English composition.
1041 Survey of American Literature, 1860 to 1914
3-0-3
A course on American authors from the Civil War era to the period before World War I emphasizing developments and changes in American culture.
Prerequisites: Nine credits of English composition.

## 1042 Survey of American Literature after 1914

3-0-3
A course on notable American authors since World War I including discussion of major cultural and social developments.
Prerequisites: Nine credits of English composition.
1045 Survey of British Literature before 1500 3-0-3
A chronological survey of major works of English literature from the Anglo-Saxon period to 1550.
Prerequisites: Nine credits of English composition.

## 1046 Survey of Renaissance and 18th Century British Literature

3-0-3
A survey of major British authors from the Renaissance through the 18th century.
Prerequisites: Nine credits of English composition.

## 1047 Survey of 19th and 20th Century British Literature

3-0-3
A survey of major British authors and literary movements in the 19th and 20th centuries.
Prerequisites: Nine credits of English composition.

## 1048 Introduction to Shakespeare

3-0-3
Students read three to five of Shakespeare's best-known plays and view one or more video versions of those plays. Course emphasizes the issues facing modern interpreters of these classic plays. Regular written assignments and out of class screenings required. Prerequisites: Nine credits of English composition or other writing classes.

## 1049 Introduction to World Literature

3-0-3
An introductory course on non-Western literature from a variety of cultures. Topics include: literature of Asian, African, MiddleEastern, Hispanic, Caribbean, and indigenous peoples. Readings include representative works from ancient, classical, medieval, and modern periods.
Prerequisites: Nine credits of English composition.

## 1050 The Short Story

3-0-3
An introduction to short fiction with examples from a variety of periods, styles, and cultures. Emphasizes critical reading and involves regular written assignments.
Prerequisites: Nine credits of English composition.

# LIT - Literature LOT - Laser Electro-Optics 

1051 Drama
3-0-3
An introduction to drama as a literary form including plays that represent a variety of periods and styles. Regular written assignments and out of class screenings required.
Prerequisites: Nine credits of English composition.
1052 Poetry
An introduction to poetry as a literary form. The poems represent a variety of periods, styles, and cultures. The course involves regular written assignments.
Prerequisites: Nine credits of English composition.

## 1053 The Novel

3-0-3
An introduction to major themes and issues in the novel with examples from a variety of periods and cultures. Content and emphasis vary from term to term. Regular written assignments required.
Prerequisites: Nine credits of English composition.

## 1054 Children's Literature

3-0-3
An introduction to themes and issues in multicultural children's literature, including poetry and prose. Emphasizes critical assessment of materials in relation to the interests and needs of varied age groups. Regular written assignments required. Prerequisites: Nine credits of English composition or instructor consent.

1055 Science Fiction
An introduction to themes and issues in science fiction, emphasizing the stories' analysis of social and technological trends. Regular written assignments required.
Prerequisites: Nine credits of English composition.
1056 Women Writers
An introduction to major themes and forms in women's writing from a variety of periods and cultures including American ethnic women. Content and emphasis vary from term to term. Regular written assignments required.
Prerequisites: Nine credits of English composition.

## 1057 African-American Writers

An introduction to major themes and forms in African-American writing from a variety of periods, including contemporary writers. May also include African or Afro-Caribbean writers. Content and emphasis vary from term to term. Regular written assignments required.
Prerequisites: Nine credits of English composition.

## 1058 Introduction to Literature

3-0-3
An introduction to strategies for interpreting literature. Topics include: literary theory and a variety of interpretative approaches. Prerequisites: Nine hours of English composition.

## 1059 Topics in Literature

3-0-3
Study and discussion of selected topics or genres in literature (detective fiction, images of women, etc). Content and emphasis vary from term to term.
Prerequisites: Nine credits of English composition.

## LOT Laser Electro-Optics

6710 Introduction to Lasers 2-3-3
An introduction to laser fundamentals. Topics include: emission and absorption of photons, elements of the laser, properties of laser light, optical cavities, helium-neon lasers, laser classifications and characteristics, and an introduction to laser safety.
Prerequisites: None.
Corequisites: MAT 1172 or MAT 1191.

6715 Laser Safety
2-2-3
An introduction to safe laser use. Topics include: parts of the eye most susceptible to damage from laser light; point sources and extended sources; specular, diffuse and Fresnel reflections; hazards of laser beams; laser classification; bioeffects; associated hazards and calculations of MPE, OD, and nominal hazard zone.
Prerequisites: LOT 6710.
6720 Geometrical and Wave Optics
A course on the basics of geometrical and wave optics. Topics include: reflection and refraction of light, mirrors, lenses, and prisms; reflection; interference; diffraction; and polarization. Prerequisites: MAT 1172 or MAT 1191, LOT 6710.

6730 Optical Components and Devices
An introduction to optical components and devices. Topics include: optical components such as optical windows, flats, filters, and beamsplitters and laser-optic devices such as photodetectors, laser power and energy detectors, collimators, autocollimators, beam expanders, spatial filters, electro-optic Q-switches, and laser modulators.
Prerequisites: LOT 6720.

## 6735 Industrial Laser Systems

A course on various types of industrial laser systems. Topics include: types of lasers such as Nd: YAG, CO2, Excimer, Argon, and Semiconductor; motion control systems; and beam delivery systems.
Prerequisites: None.
Corequisites: LOT 6730.

## 6736 Medical Laser Systems

3-3-4
A course on various types of medical laser systems. Topics include: various types of medical lasers such as Nd: YAG, CO2, Excimer, dye, and argon used in medical applications; beam delivery systems; and filters, tips, and other accessories.
Prerequisites: LOT 6730.
6740 Applications of Lasers
An introduction to laser materials processing. Topics include:
cutting, drilling, welding, engraving, surface modification, and holography.
Prerequisites: LOT 6730.

## 6741 Introduction to Fiber Optics

3-3-4
A course on optics review-lenses, imaging, numerical aperture, diffraction, light wave fundamentals dispersion, pulse distortion, reflection at a plane boundary, critical-angle reflections, wave guides, modes in symmetric slab wave guide, step index fiber, graded index fiber, modes in step-index fiber, distortion in step-index fiber, couplers and connectors, lateral misalignment, angular misalignment, end separations, and splices.
Prerequisites: LOT 6710.

## 6745 Optical System Design

3-3-4
An introduction to the design of optical systems. Topics include: co-axial system of two thin lenses, thick lenses, cardinal points, refraction matrix, translation matrix, lens matrix, system matrix of two thin lenses, system matrix of combination of lenses, Gaussian constants and their physical significance, and lens aberrations. Prerequisites: LOT 6720.

## 6749 Laser Electro-Optic Project

0-4-2
Individual study and special projects pertaining to laser technology.
The study may deal with an idea or concept not usually covered by existing courses at the College, or with a specific problem

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found in the industry in which the student is employed. Open to fourth and fifth-term students by special arrangement with the instructor and program chair. Students receive grades of $S$ or $U$ for this course.
Prerequisites: LOT 6720, EET 7730.

## 6750 Laser Electro-Optic Measurements

An introduction to different types of spectrometers and interferometers. Topics include: laser power and energy measurements, wavelength, dispersion and refractive index measurements, using monochromators and spectrophotometers, using Fabry-Perot Michaelson, and laser cavity. Prerequisites: LOT 6740.

## 6758 Laser Electronics

2-3-3
An introduction to theory, operation, and construction of various types of power supplies that energize lasers. Topics include: safety considerations, supplies needed for different types of lasers, and physical configuration of actual supplies.
Prerequisites: EET 7720.

## 6768 Laser Maintenance

2-3-3
Topics include: the use of support and test equipment; schematic reading, cleaning, and alignment of optical systems; and the maintenance of optical, electronics, and cooling systems of the laser. Prerequisites: LOT 6758.

## 6799 Special Problems Seminar - Lasers Var-Var-Var

Individual and independent study and special projects pertaining to the particular program in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth term students by special arrangement with the instructor and program chair. Students receive grades of $S$ or $U$ for this course. Prerequisites: LOT 6720, EET 7730.

## MA Medical Assisting

4200 Medical Office Practice
Topics include: fundamentals of patient reception, appointment making, mail handling, telephone techniques, inventory procedures, care of equipment and supplies, medical-legal relationships of the medical office, and the assistant's role.
Prerequisites: MCH 4002 (minimum grade C).

## 4201 Medical Office Practice Lab

0-3-1
Laboratory practice and simulations designed to model the administrative duties of the medical office assistant.
Prerequisites: MA 4200 (minimum grade C).
4202 Clinical Procedures 1
2-3-4
Topics include: asepsis and infection control, fundamentals of patient preparation, history taking, positioning, draping, taking and recording vital signs, assisting the physician with examinations, and caring for the examination room before and after patients. Prerequisites: Admitted to the Medical Assisting program.

## 4203 Clinical Procedures 2

2-3-4
Topics include: medications, sterile procedures, assisting in minor office surgeries, assisting in $\mathrm{OB} / \mathrm{GYN}$ and special examinations, electrocardiography, X-ray procedures, ultrasound, CT scans, MRIs, radionuclides, and pulmonary function testing.
Prerequisites: MA 4202 (minimum grade C).
4204 Medical Laboratory Procedures 1
2-3-3
Topics include: the use of basic laboratory equipment, quality
assurance and quality control, specimen collection, hematology and serology procedures.
Prerequisites: BIO 4073 or high school biology and CHE 2203 or CHE 2200 or CHE 2231 or high school chemistry, (minimum grade C for all).

4205 Medical Laboratory Procedures 2 2-3-3
A continuation of MA 4204. Topics include: chemistry procedures including blood glucose and cholesterol and urinalysis, microbiology including common parasites.
Prerequisites: MA 4204, BIO 4074 (minimum grade C).

## 4206 Office Diagnostic \& Treatment Procedures

 for Medical Assistants 12-3-3
A study of the relationship between diagnostic and therapeutic procedures and patient conditions. Topics include: infectious diseases, circulatory diseases, diseases and conditions that require X-rays for diagnosis, and therapy and respiratory conditions and diseases.
Prerequisites: MA 4205 (minimum grade C).

## 4207 Office Diagnostic \& Treatment Procedures

 for Medical Assistants 22-3-3
Special diagnostic procedures and techniques related to the patient in the physician's office. Topics include: the diagnosis and treatment of patients with urinary tract problems, reproductive system problems, nervous system disorders, endocrine, and other disorders. Prerequisites: MA 4206 (minimum grade C).

## 4209 Medical Assistant Seminar

2-0-2
Review of the theory and practice of skills the entry-level medical assistant needs. Topics include: job readiness skills, resume preparation, job search, interviewing, and preparing for National Certification Exam.
Prerequisites: MA 4205, MA 4221, MA 4220 (minimum grade C). Corequisites: MA 4211.

4210 Medical Office Insurance and Coding
3-2-4
A course on principles of insurance and filing insurance claims.
Topics include: using superbills, coding of claims using CPT,
ICD-9-CM, HCPCS, and electronic claims filing. Students use simulations and practical exercises emphasizing managed care environments and ambulatory care settings.
Prerequisites: MCH 4806 (minimum grade C).

## 4211 Medical Assisting Externship 1

Var-Var-Var
Clinical practice in medical assisting in physician offices, health centers, clinics, and hospital outpatient departments. Students spend an equal number of hours in clinical and administrative assisting. Students receive no remuneration for these experiences. Prerequisites: MA 4205, MA 4203 (minimum grade C). Corequisites: MA 4209.

4213 MA Clinical Experience
1-16-3
Clinical practice in medical assisting in physician offices, health centers, clinics, and hospital outpatient departments. Students spend an equal number of hours in clinical and administrative assisting. Students receive no remuneration for these experiences. Prerequisites: Successful completion of first year of MA program.

4215 Medical Assisting Clinical Applications 2-3-3
Topics include: trends in managed care, ambulatory care and health care in general. Students present on topics in MA professional practice and operate an on-site health clinic providing testing and patient education services.
Prerequisites: MA 4207, MA 4224 (minimum grade C for both).

## 4220 Pharmacology for Medical Assistants

2-3-4
An introduction to clinical drug therapy, categories, and adverse reactions. Topics include: drug therapy, drug interactions and principles, terminology, modes of administration, and mechanisms of action of the major drug groups.
Prerequisites: BIO 4073, BIO 4074 (minimum grade C).

## 4221 Medical Administrative Procedures

Topics include: fundamentals of patient reception, appointment making, mail handling, telephone techniques, inventory procedures, care of equipment and supplies, the assistant's role, and automated patient records.
Prerequisites: MCH 4806, MA 4210 (minimum grade C).

## 4224 Advanced Clinical Procedure

2-3-3
Topics include: specialties and special patient concerns and geriatrics, pediatrics, ophthalmology, orthopedics, and ENT. Prerequisites: MA 4203 (minimum grade C).

## 4245 Medical Office Billing and Reimbursement 2-3-3

A course on principles of bookkeeping and billing for medical office and managed care settings. Topics include: collection theories and techniques, systems used for reimbursement practices, collection ratios and percentages, double entry, and pegboard procedures.
Prerequisites: MA 4210 (minimum grade C).

## 4298 Special Studies - Medical Assisting Var-Var-Var

A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health and Public Safety.
Prerequisites: None.

## 9387 Introduction to

Medical Assisting Service Learning 1-1-1
A course that gives an overview of community service organizations and agencies. Provides students with a sampling of possible service activities and assists with portfolio development and activity selection. Prerequisites: Completion of the MA certificate program.

9388 Medical Assisting Service Learning Project 0-3-1 A continuation of MA 9387 in which students complete a selected service project through a community agency. A minimum of 30 service hours is required and may be completed over three terms. Prerequisites: MA 9387 (minimum grade C).

## MAT Mathematics

1105 Science Mathematics
An applied mathematics course incorporating laboratory experiences. Topics include: problem solving; algebraic manipulation of formulas; metric system; significant figures; graphing; ratio, proportion, and unit conversions; percents; estimation; measurement; data collection; and an introduction to statistics. Prerequisites: DE 0024 or appropriate placement test score.

## 1108 Math for Food Service

1-2-2
A course on applied mathematical concepts and computations used in the food service industry. Topics include: recipe conversion, portion costing, costs as a percentage of sales, periodic food costs, selling price determinations, and weights and measures. Includes a lab component.
Prerequisites: DE 0024 or appropriate placement test score.

1110 Mathematical Reasoning for Statistics
4-0-4
An entry-level college math course introducing quantitative reasoning skills to prepare students for the statistics sequence. Topics include: variables, distributions, and functions; correlation, causality, linear modeling, and linear regression; unit conversion; use and abuse of percents; data uncertainty; and mathematical logic and rhetorical fallacies. Students must have a scientific calculator with STAT capabilities.
Prerequisites: DE 0025 or appropriate COMPASS mathematics score.
1111 Statistics 1
3-0-3
An introduction to the quantitative techniques of statistics emphasizing applications. Topics include: the scientific method, quality characteristics, organizing and picturing data, descriptive statistics, correlation and regression, normal distribution, and probability. Students must have a scientific calculator with STAT capabilities.
Prerequisites: MAT 1110, MAT 1124, MAT 1151 or MAT 1191 (or both MAT 1171 and MAT 1172) (minimum grade C), or appropriate COMPASS mathematics score.

## 1112 Statistics 2

3-0-3
A continuation of MAT 1111. Topics include: probability distributions, binomial distribution, hypothesis testing of proportions and means (one sample), chi-square tests, sampling and estimation. Course includes a group project. Students must have a scientific calculator with STAT capabilities.
Prerequisites: MAT 1111 (minimum grade C).

## 1113 Statistics 3

3-0-3
A continuation of MAT 1112. Topics include: confidence and prediction intervals, experimental design, hypothesis testing of standard deviations and means (two samples), analysis of variance, and nonparametric methods. Course includes a group project. Students must have a calculator with STAT capabilities.
Prerequisites: MAT 1112 or MAT 1179 (minimum grade C).
1121 Business Mathematics 1
A course on the applications of mathematics in the business world. Topics include: arithmetic review, equations, ratios, review of percents, payroll, taxes, and insurance. Students must have a scientific calculator.
Prerequisites: DE 0024 or appropriate COMPASS mathematics score.
1122 Business Mathematics 2
3-0-3
A continuation of MAT 1121. Topics include: trade and cash discounts, markups and markdowns, inventory, depreciation, financial reports, graphs, statistics, distribution of profit, and overhead. Students must have a scientific calculator.
Prerequisites: MAT 1121.
1123 Business Mathematics 3
3-0-3
A continuation of MAT 1122, emphasizing financial math. Topics include: simple interest, bank discounts, compound interest, multiple payment plans, annuities, amortizations, stocks, and bonds. Students must have a scientific calculator.
Prerequisites: MAT 1121 (minimum grade C).
1124 Business Algebra
4-0-4
A review of the basic laws of algebra. Topics include: polynomials, factoring, rational expressions, exponents, linear and quadratic equations with business applications in compound interest and annuities, graphing as a problem solving method, and simultaneous equations. Students must have a scientific calculator.
Prerequisites: DE 0025 or appropriate COMPASS mathematics score.

1128 Business Calculus
5-0-5
A foundation calculus course. Topics include: library of functions, derivatives, shortcuts to differentiation, using derivatives, and an introduction to integration. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: MAT 1152 or MAT 1192 (minimum grade C).

## 1151 College Algebra

4-0-4
An entry-level college math course. Topics include: introduction to functions and functional notation; average rates of change of functions; graphing, writing, and solving equations for linear, quadratic, and exponential functions, linear regression, and simultaneous equations. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: DE 0025 or appropriate COMPASS mathematics score.

## 1152 Pre-Calculus

5-0-5
A continuation of MAT 1151. Topics include: review of functions and function properties; comparing linear and non-linear functions including polynomial, exponential, logarithmic, and periodic; and transforming functions. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: MAT 1124 or MAT 1151 or MAT 1191 (or both MAT 1171 and MAT 1172) (minimum grade $C$ for all) or appropriate COMPASS mathematics score.

## 1154 Calculus 1

5-0-5
A foundation calculus course. Topics include: library of functions, derivatives, shortcuts to differentiation, using derivatives, and an introduction to integration. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: MAT 1152 or MAT 1192 (minimum grade C).

## 1155 Calculus 2

5-0-5
A continuation of MAT 1154. Topics include: methods of integration (substitution, parts, tables, numerical, and CAS), solutions to differential equations, Euler's method, separation of variables, and Taylor Series. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: MAT 1154 (minimum grade C).

## 1156 Calculus 3

5-0-5
A continuation of MAT 1155. Topics include: functions of more than two variables; limits, continuity, and differentiation of functions of more than two variables; vectors (dot and cross products); partial derivatives; and local and global extrema. Students must have a graphing calculator; TI-83 or TI-84 preferred. Prerequisites: MAT 1155 (minimum grade C).

## 1161 Applied Algebra <br> 3-2-4

A course on the practical uses of mathematics in engineering and basic science applications. Topics include: review of percents and fractions, manipulating measured values and variables in formulas, and reading numbers from technical drawings and from measuring devices, solving linear equations and applications. Students must have a scientific calculator.
Prerequisites: DE 0020 (minimum grade B) or appropriate COMPASS score

## 1162 Applied Geometry \& Trigonometry 3-2-4

A course on the practical uses of geometry and trigonometry. Topics include: manipulating formulas, using geometric facts, the relationship between geometry and trigonometry, constructing and reading graphs, quadratic equations and $2 \times 2$ systems, and reading numbers from technical drawings and from measuring devices. Students must have scientific calculator.
Prerequisites: MAT 1161 (minimum grade C).

1171 Technical Mathematics 1
4-0-4
A course that strengthens algebraic, geometric, and trigonometric skills with practical applications. Topics include: order of calculation, scientific notation, accuracy, rounding, unit conversion, formula and equation manipulation, ratio and proportion, area and volume calculation, right triangle trigonometry, functions, graphs, and simultaneous equations. Students must have a scientific calculator. Prerequisites: Appropriate COMPASS mathematics score or MAT 1162 (minimum grade C).

1172 Technical Mathematics 2
4-0-4
A continuation of MAT 1171. Topics include: quadratic equations, equations involving fractions, oblique triangle trigonometry, vector addition, and solving exponential equations and equations using angles in radians. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: MAT 1171 (minimum grade C).
1173 Algebra \& Trigonometry 2 with Statistics
4-0-4
A continuation of MAT 1172. Topics include: solving exponential and logarithmic equations; complex numbers; graphs of basic trigonometric functions; solving trigonometric equations, variation, second degree simultaneous equations, and radical equations; and introduction to statistics. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: MAT 1191 or MAT 1172 (minimum grade C).

1179 Applied Statistics 3-2-4
An accelerated introduction to the quantitative techniques of probability and statistics. Topics include: the scientific method, organization of data, graphical displays, descriptive measures, probability, binomial and normal distributions, sampling, hypothesis testing, and linear regression and correlation. Students use statistical software.
Prerequisites: MAT 1124 or MAT 1151 or MAT 1191 (or both MAT 1171 and MAT 1172) (minimum grade B) or appropriate COMPASS mathematics score.

1191 Algebra and Trigonometry 1
3-2-4
A course that strengthens algebraic, geometric, and trigonometric skills with practical applications. Topics include: scientific calculations, unit conversions, geometry review, solving algebraic formulas, graphing, right triangle and oblique triangle trigonometry, vector addition, quadratic equations, and simultaneous equations.
Students must have a graphing calculator; TI-83 or TI-84 preferred. Prerequisites: Appropriate COMPASS mathematics score or MAT 1161 and MAT 1162 (must have an A for both).

1192 Algebra and Trigonometry 2
4-0-4
A continuation of MAT 1191. Topics include: solving exponential and logarithmic equations, complex numbers, solving trigonometric equations, variation, second degree simultaneous equations and graphs of trigonometric functions. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: MAT 1191 or MAT 1172 (minimum grade C for both).

## 1193 Analytic Geometry \& Calculus 1

4-0-4
A traditional approach to analytic geometry and calculus. Topics include: analytic geometry involving lines and the conic sections, graphs, analysis of polynomial functions, derivative concept, and indefinite and definite integrals. Integral applications include areas and volumes and related topics. Students must have a graphing calculator; TI-83 or TI-84 preferred.
Prerequisites: MAT 1173 or MAT 1192 (minimum grade C for both).

# MAT - Mathematics <br> MCH - Multi-Competent HealthTechnology 

1198 Workshops in Mathematics
Var-Var-Var
Study of selected topics in mathematics designed to meet current needs. Content and emphasis vary from year to year.
Prerequisites: None.
1199 Special Studies-Mathematics
Var-Var-Var
A personal academic pursuit related to the student's technical field of study mutually agreed upon by the student and supervising faculty member. The Dean of Humanities and Sciences must approve the plan of study prior to registration. Students receive grades of $S$ or $U$ for this course.
Prerequisites: None.

## MCH Multi-Competent HealthTechnology

4001 Introduction to the Health Care System
An overview of the health care system. Topics include: history, organization, areas of specialization, roles and relationships, education, medical ethics, and patient rights.
Prerequisites: None.

## 4002 Informatics in Health Care

1-2-2
A course on information technology in health care delivery systems including hardware, software, Internet, and database use.
Prerequisites: OT 3007 (minimum grade C) or keyboarding skill at 20 words per minute.

## 4803 Medication Aide

7-18-8
Part of a two-course sequence that focuses on basic concepts of anatomy, physiology, and pharmacology as required by State of Ohio regulations. The course includes a minimum of 80 hours of lecture and lab practice to prepare students to distribute medications in long-term care and residential care facilities. Prerequisites: Must be on the State of Ohio Registry.

## 4804 Medication Aide Clinical Practice

0-40-2
A continuation of MCH 4803. Students spend at least 40 hours of clinical practice passing medications under the direct supervision of a licensed nurse in a long term care and/or residential care facility. Students research and prepare medication information for each resident in their assignment.
Prerequisites: MCH 4803 (minimum grade C).

## 4805 Patient Care Skills

1-3-2
A course on basic health care concepts and skills for students planning a career in health care. Topics include: basic body mechanics, caregiver/client relationships, infection control, basic assessment skills, team building skills, and problem solving techniques.
Prerequisites: None.

## 4806 Medical Terminology 1

3-0-3
A systematic study of the basic structure of medical words.
Topics include: prefixes, suffixes, word roots, combining forms, and singulars and plurals.
Prerequisites: None.

## 4807 Medical Terminology 2

A systematic study of medical terminology and abbreviations associated with body organization, body systems, oncology, radiology, nuclear medicine, pharmacology, and other medical specialties. Topics include: defining, pronouncing, and spelling medical terms using prefixes, suffixes, roots, and combining forms. Prerequisites: MCH 4806 (minimum grade C).

4808 Professionalism in Health Care
3-0-3
This course surveys the professional standards that apply to all health care workers focused on providing quality health services. Topics include key factors of professionalism, communication skill assessment, employability skills, health care teams, career decision making, diversity, legal and ethical boundaries, and professional development.
Prerequisites: DE 0010, DE 0004 or appropriate COMPASS scores.

## 4810 Nurse Aide Training

4-4-6
A course that introduces students to caring for the elderly in long-term care facilities. Topics include: communication and interpersonal skills, mental health and social service needs, resident rights, safety and emergency procedures, and basic restorative services. Successful course completion qualifies students to take the Ohio Board of Health Competency Evaluation Test. Prerequisites: Current health records.

4812 Introduction to the Patient Care Assistant Role 4-0-4 A course that prepares students for employment in acute care facilities as nursing assistive personnel. Topics include: role definition/clarification, communication, basic anatomy/physiology concepts with associated observations, overview of nutrition/diet therapy, introduction to common pathologies, and commonly delegated skills.
Prerequisites: MCH 4810 (minimum grade C) or equivalent, must be on the State Nurse Aide Registry, passing scored on the TABE test.

4813 Restorative Aide Training
1-2-2
An overview of the restorative aide role and responsibilities for employment in acute care or long-term care environments. Topics include: rehabilitation services to return individuals to optimal mobility and functioning following various conditions.
Prerequisites: State Tested Nurse Aide or current NATP Certification.
4814 Direct Patient Care Experience
0-3-1
A clinical course providing direct patient care experience in either acute or long term care facilities. Depending on educational preparation, students function as nurse aides or patient care assistants under the direct supervision of an RN instructor.
Prerequisites: State Tested Nurse Aide.
4816 Health and Wellness Promotion
2-0-2
A course on consumer health and wellness issues. Topics include: self empowerment, stress reduction, physical fitness, healthy eating, addiction avoidance, reduction of risk factors in disease and alternative therapies, aerobic exercise, meditation, and blood pressure and blood glucose screenings.
Prerequisites: None.
4819 Problem-Solving for the Health Care Professional 2-0-2
A course on improving problem-solving skills by applying clinical reasoning to health related situations. Uses an interdisciplinary approach.
Prerequisites: Admitted to a Health and Public Safety Division degree or certificate program.

4840 Orientation to the Health Record and Legal Issues 2-2-3 A course on the content and format of the health record. Topics include: standard health record forms, legal issues that relate to the health record, basic rules of health record maintenance, and filing and retrieving diagnostic reports.
Prerequisites: MCH 4806 (minimum grade C).
4841 Unit Coordinator Procedures 1
2-2-3
Topics include: the processing of patient charts for admission,

## MCH - Multi-Competent HealthTechnology MET - Mechanical Engineering Technologies

transfer, and discharge; transcription of nursing treatment orders, medication orders, respiratory and physical therapy orders; and the use of relevant computer software.
Prerequisites: MCH 4840 (minimum grade C).

## 4842 Unit Coordinator Procedures 2

2-4-4
A continuation of MCH 4841. Topics include: X-ray procedures, MRI scan, nuclear medicine, ultrasound, and endoscopy. Course is parallel to a field experience in an area health care facility. Prerequisites: MCH 4841 (minimum grade C).

## 4870 Basic Electrocardiography \& Arrhythmia Recognition

An introduction to the principles of electrocardiography. Topics include: the electrical conductive system of the heart, patient preparation, setting up the ECG machine, recognizing and correcting distortion problems, basic arrhythmias, and special procedures. Prerequisites: BIO 4073 (minimum grade C), DE 0011 or DE 0018, DE 0005, or appropriate COMPASS scores.

## 4871 Advanced Arrhythmia Recognition

3-0-3
An advanced course in electrocardiography. Topics include: recognizing arrhythmias; review of basic ECG principles; interpretation of various types of atrial, function, and ventricular dysrhythmias; and various measurements and calculations to aid in interpretation. Prerequisites: MCH 4870 (minimum grade C).

## 4880 MCH Health Care Settings

3-0-3
A course on the interdisciplinary relationship between various health care professionals. Students visit selected health care settings. Prerequisites: MCH 4840 (minimum grade C).

4881 Current Issues in Health Economics
3-0-3
A study of current trends and issues in health care systems economics. Topics include: the differences between medical care and other commodities in the study of economics.
Prerequisites: MCH 4001 (minimum grade C).

## 4882 Law and Ethics for Health Care

Topics include: legal and ethical issues that face the interdisciplinary health care team. Students evaluate case studies relevant to their academic discipline.
Prerequisites: None.

## 4883 General X-ray Machine Operation

3-0-3
A course that prepares students for Ohio Licensure as a General X-ray Machine Operator. Topics include: instruction on radiation physics, radiographic techniques, darkroom processing and film handling, radiation health safety and protection, and radiation biology. Prerequisites: None.

## 4884 Cultural Competency for Health and

 Public Safety Professions3-0-3
A course on concepts and techniques for developing an understanding of the construct of cultural competency as it relates to fields of Health and Public Safety. Topics include: skill building; the influence of race, culture, and ethnicity in shaping values; belief systems; and behaviors of patients and health care professionals.
Prerequisites: DE 0011 (or appropriate COMPASS score) or ENG 1001 (minimum grade C).

4885 Health Care Team-Based Management
3-0-3
Prepares health care supervisors and managers for their changing role in high-performance environments. Topics include: developing skills in enhancing trust levels, coaching team-based problemsolving and decision-making, and developing partnerships. Prerequisites: PSY 1502 (minimum grade C).

4886 Quality Issues in Health Care
3-0-3
Topics include: governmental and quasi-governmental organizations responsible for health care accreditation and regulation, health care provider departments charged with addressing regulation, and major issues and trends affecting the delivery of quality health care services.
Prerequisites: None.
4899 Special Studies - MCH
Var-Var-Var
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health and Public Safety. Students receive grades of $S$ or $U$ for this course. Prerequisites: None.

## MET Mechanical Engineering Technologies

## 7002 Engineering Graphic Concepts

1-2-2
An introduction to basic drafting techniques such as line quality, lettering, and geometric construction; prepares students for success in ET 7008 and CET 7024. Required for all Engineering Technology pre-tech students unless specifically waived by the Dean of The Center of Innovative Technologies.
Prerequisites: None.

7005 Introduction to Blueprint Reading
Topics include: machine-trades, blueprint reading, shop sketching, and technical terminology.
Prerequisites: None.

7108 Engineering Drawing 1 with AutoCAD
2-3-3
An introduction to mechanical drafting and computer aided design. Students learn the fundamentals of drafting and progress to using CAD to create multi-view machine component drawings. Topics include: geometric construction, orthographic projection, sections, auxiliary views, and dimensioning.
Prerequisites: None.
7110 Mechanical Design AutoCAD 1
2-3-3
A course on efficient CAD operation. Topics include: updated drafting and dimensioning techniques per the ANSI Y14.5M-1994 standard, and two-dimensional machine and component drawings. Prerequisites: None.

## 7111 Engineering Materials

3-2-4
A course on the basics of engineering materials. Topics include: steel, steel alloys, cast iron, aluminum, polymers, ceramics, and composites; and manufacturing, strengthening, and materials testing procedures. Students use the materials testing laboratory to study physical and mechanical properties of materials. Prerequisites: PHY 2222 or PHY 2291.

7120 Mechanical Engineering Technology AutoCAD 2 2-3-3
A course on building three-dimensional CAD models. Topics
include: wireframe, surfaced, and solid models.
Prerequisites: MET 7108.

7121 Engineering Drawing 2 with AutoCAD
2-3-3
A continuation of MET 7108, emphasizing advanced drawing techniques using AutoCAD. Topics include: secondary auxiliary views, sectioning, dimensioning, class of fits, surface finish designations, tolerancing, threads, fasteners, welding representations, stack-up analysis, and geometric feature controls dimensioning.
Prerequisites: MET 7108.

7122 Mechanical Engineering Technology CAD 3 2-3-3
Students produce complex three-dimensional models using advanced Computer Aided Design and Drafting software packages. Prerequisites: MET 7120, MET 7121.

## 7125 Visual BASIC (MET)

2-3-3
A course on using Visual BASIC to write and code MET-related software. Topics include: form layout and definition, labels and text boxes, command buttons, option buttons, variable types, arrays, for-next loops, and if statements. Students need experience with Microsoft Windows.
Prerequisites: None.

## 7130 Engineering Mechanics-Statics

3-2-4
A course on how forces act on rigid structures. Topics include: using vector algebra to determine component forces and moments and their effects on machine parts, frames, and structures in static equilibrium; vector analysis; free body diagrams; evenly distributed loads; equilibrium; trusses and frames; friction; center of gravity; and moment of inertia.
Prerequisites: MAT 1191 and MAT 1172, PHY 2291

## 7132 Hydraulics \& Pneumatics 1

2-3-3
A course on applied hydraulics and pneumatics. Topics include: fluid transport, power systems, pumps, compressors, control logic, actuators, motors, reservoirs, piping, and safety. Using CAD, students create control schematics with ANSI symbols and test these systems in the lab.
Prerequisites: MAT 1191, PHY 2291.

## 7140 Strength of Materials

A course on analyzing stresses and strains that occur within machine and structural elements subjected to various types of loads. Topics include: axial and bending stresses; direct, horizontal, and torsional shear; deflection; and combined stresses.
Prerequisites: MET 7130.

## 7141 Kinematics \& Dynamics of Machines

3-2-4
A course on analyzing mechanisms. Topics include: linear and angular displacement, velocity, acceleration, work, force, horsepower, harmonic motion, mass moment of inertia, dynamic balance, and mathematical, computer aided design, and graphical solutions of machine kinematics and dynamics.
Prerequisites: MAT 1192, PHY 2292.

## 7145 Statics and Strength of Materials

2-3-3
A course on statics and strength of materials. Topics include: the effects of forces and stresses on materials in various forms; configurations found in manufacturing and mechanical engineering; and using mathematics to analyze forces, stresses, moments, equilibrium, centroids, and moments of inertia. Prerequisites: MAT 1191 or MAT 1172.

## 7148 Applied Thermodynamics

3-2-4
A course in the engineering study of energy. Topics include: first and second laws of thermodynamics, energy equation of gases, Mollier diagrams, energy utilization, heat transfer, specific heat, carnot cycle, entropy, enthalpy, adiabatic processes, steam generation and turbines, internal combustion engines, and refrigeration. Prerequisites: PHY 2292.

7150 Machine Design 1
3-3-4
A course on applying the principles of engineering mechanics and strength of materials to the analysis and selection of mechanical components. Topics include: combined stresses, failure theories, shaft components, shaft design, and fasteners. Students complete a
design project.
Prerequisites: MET 7140.
7152 Hydraulics \& Pneumatics 2
A continuation of MET 7132, emphasizing the operation and control of solenoid-operated valves used in both hydraulic and pneumatic circuits. Topics include: digital concepts, relay logic application, and ladder diagrams.
Prerequisites: MET 7132.
7155 Machine Design 2
3-3-4
A course on the components used in modern machinery. Topics include: springs, gears and gear trains, belts and chains, bearings, power and ball screws, power transmission, clutches, and brakes. Prerequisites: MET 7140.

7158 MET Design Project 2
2-3-3
A continuation MET 7198. Topics include: manufacturing the completed design and prototype of the assigned project from MET 7198.
Prerequisites: MET 7198.
7198 MET Design Project 1
2-6-5
A project-based course in which students participate in a team design project. Topics include: feasibility study, design concepts, detail and assembly drawings, bill of materials, commercial and fabricated parts, vendors, costs, and manufacturing.
Prerequisites: MET 7140 or MET 7145, MET 7121.
7199 Special Problems Seminar - Mechanical Var-Var-Var Individual and independent study and special projects pertaining to the particular program in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth term students by special arrangement with the instructor and program chair.
Prerequisites: Varies.
7220 Plastic Materials and Processes 1
An introduction to material properties and applications. Topics include: the design, manufacture, finishing, assembly, and environmental impact of plastic materials.
Prerequisites: None.
7230 Plastic Materials and Processes 2
2-3-3
A continuation of MET 7220 emphasizing polymer materials and processes. Topics include: organic chemistry, macro-molecular principles, thermosets, thermoplastics, elastomeric materials, and plastic processing.
Prerequisites: MET 7220.
7240 Plastic Materials and Processes 3
3-2-4
A continuation of MET 7230 emphasizing polymer manufacturing. Topics include: process selection, control of variables, troubleshooting, injection molding, extrusion, blow molding, vacuum and pressure thermoforming, finishing, and mold design. Prerequisites: MET 7230.

7250 Plastic Materials and Processes 4
An advanced course on injection mold design. Topics include: complete mold design projects with a comprehensive treatment of fluid dynamics, stress analysis, heat transfer, and other mold design considerations.
Prerequisites: MET 7240.

## MET - Mechanical Engineering Technologies MGT - Management

## 7310 Manufacturing Processes with CNC Programming 2-3-3

A course on material fabricating fundamentals. Topics include: metal removing processes; turning, facing, milling, and drilling; measuring techniques; materials considerations; feeds and speeds; tooling requirements; and manufacturing with plastics and composites. Students generate CNC programs and computer simulation of machining operations.
Prerequisites: MAT 1162 or appropriate COMPASS mathematics score, MET 7108.

## 7320 Advanced CNC Programming <br> 2-3-3 <br> A continuation of MET 7310. Topics include: advanced CNC

 programming of complex parts on two axis mills and lathes, and CNC control.Prerequisites: MET 7310.
7330 CAD-CAM 1
2-3-3
An introduction to CAD/CAM. Topics include: CAM simulation, hands-on machining of lab parts, and prototyping techniques. Students use CAD files and CAM software to create a CNC program for producing the part on a CNC machine.
Prerequisites: MET 7320, MET 7108.

## 7340 CAD-CAM 2

2-3-3
A continuation of MET 7330. Topics include: CAM simulation, hands-on machining, prototyping, and an introduction to metal casting. Students generate multi-piece parts using CAD and use CAM software to create a CNC program for producing the parts on a CNC machine.
Prerequisites: MET 7330.
7345 Manufacturing Process Planning and Estimating 2-3-3
A course on estimating the cost to manufacture a product to specifications. Topics include: manufacturing processes, sequencing of operations, tooling, material usage, quality considerations, direct and indirect rates and times, burden and overhead, and basic time and motion concepts.
Prerequisites: MET 7310.
7346 Manufacturing Facility Layout and Material Handling

2-3-3
A study of the procedures and design of an efficient facility layout. Topics include: data collection and analysis methods, materials handling, and functional plant design.
Prerequisites: MET 7345.

## 7351 CAD-CAM 3

3-3-4
A continuation of MET 7340. Topics include: generating 3D contour parts using CAD, using CAM software to create a CNC program for producing the parts on a CNC machine, CAM simulation, hands-on machining, and prototyping.
Prerequisites: MET 7340, MET 7120.

## 7355 Quality Control with SPC

2-3-3
A course on control concepts in manufacturing. Topics include: quality history and evolution, product requirements, continuous improvements, zero defects, sampling plans, total quality control, statistical process control, total quality management, and ISO 9000 concepts.
Prerequisites: MAT 1192.
7360 Manufacturing Quality Processes: Six Sigma 2-3-3 A course in Six Sigma methodology that examines using data to monitor, control, and improve operational performance in manufacturing processes and eliminate product defects. Topics include: an overview of Six Sigma and a review of several case studies. Prerequisites: MET 7355.

## MGT Management

1832 Human Resource Management
3-0-3
A broad overview of the traditional functions of a personnel office. Topics include: job evaluation, recruitment, interviewing, training, employee and union relations, employee services, and concepts concerning human relations and organizational behavior. Prerequisites: None.

## 1833 Compensation Management

3-0-3
A course on the strategic relevance of compensation systems.
Topics include: applicable regulations, management and administration of pay-for-performance, piece rates, commissions, and other pay and incentive plans.
Prerequisites: MGT 1832.
1834 Employee Benefits
3-0-3
A course on the fundamental concepts of employee benefits. Topics include: social security benefits, group insurance, cafeteria plans, retirement plans, pension benefits, and workers' compensation. Prerequisites: MGT 1832.

2905 Contact Center Customer Service
2-0-2
An introduction to contemporary customer service issues in today's contact center businesses with a focus on improving individual performance and attaining strategic business imperatives. Students develop the knowledge and skills to communicate positively and professionally with customers in a contact center environment. Prerequisites: None.

2906 Effective E-mail Communications
1-0-1
A course on the skills necessary to effectively, positively, and
professionally communicate through e-mail in a customer service, direct marketing, or e-commerce relationship.
Prerequisites: None.

## 2907 Contact Center Coaching Skills

2-0-2
A course that provides prospective and current team leaders,
supervisors, and managers with the knowledge and skills necessary to teach and reinforce service skills used in a contact center environment.
Prerequisites: None.

## 2908 Customer Service in Technical Support

2-0-2
A course in which students master skills for performing customerfocused technical support calls. This course is designed especially for technology-based industries. Students learn how to interact positively with both internal and external customers.
Prerequisites: MGT 2905.

2910 Employee Retention Systems
4-0-4
A course on employee retention systems. Topics include: under-
standing and applying eight employee retention systems, and changing corporate culture related to front-line employee retention. Prerequisites: None.

2929 Construction Business Practices 3-0-3
An overview of general business and construction practices. Topics include: business start-up, marketing, finance, insurance, taxes, management, accounting, hiring, bonding, overhead, and profit determination. Students prepare a business plan for a small construction company.
Prerequisites: None.

2963 Risk Assessment and Liability
3-0-3
An introduction to organizational risk management including the need for and assessment of liability insurance on business assets. Prerequisites: None.

## 2965 Principles of Management 1

 3-0-3An in-depth course for management majors. Topics include: the history of management, the varied domestic and global environments for management, and the management functions of planning and organizing. Students apply these theories to case studies. Prerequisites: None.

## 2966 Principles of Management 2

A continuation of MGT 2965. Topics include: the controlling function, techniques of motivation, leadership, and managing teams. Students apply these theories to case studies.
Prerequisites: MGT 2965.
2967 Introduction to Management 3-0-3
A course for non-management majors who assume supervision duties. Topics include: planning, organizing, influencing, and controlling for domestic and international businesses. Students apply these theories to case studies.
Prerequisites: None.
2970 Contemporary Leadership 3-0-3
An overview of the role of the successful integrative leader in modern organizations. Through discussions, case studies, and exercises students examine historical and contemporary approaches to leadership, including corporate practices to develop leadership. The course focuses on individual and organizational leadership perspectives.
Prerequisites: MGT 2966 or MGT 2967 or program chair consent.

## 2971 Small Business Start-Up 1

An introduction to the ownership and operation of a small business. Topics include: formation and start-up, basic sources of funding and financial management, location, and layout. Students develop a business plan.
Prerequisites: None.

## 2972 Small Business Start-Up 2

3-0-3
A continuation of MGT 2971. Topics include: the elements of management and control, marketing, legal implications, and government regulations that affect a small business owner. Prerequisites: MGT 2971.

## 2975 Business Management Seminar <br> 2-3-3

An in-depth management course using case study and simulation methods. Topics include: the entire scope of management including all functional and decision-making areas.
Prerequisites: ACC 2912, MGT 2966.

## 2977 Students in Free Enterprise

1-0-1
Students develop two projects completed during the term and one project continued in subsequent terms. Projects must follow SIFE mission to develop leadership, teamwork, and communication skills through learning/teaching free enterprise principles. Prerequisites: None.

## 2986 Individual Performance Development

Students learn skills to ensure adequate performance of employees. Topics include: establishing clear expectations, and using motivational and coaching techniques to enhance employee performance. Students participate in structured experiences. Prerequisites: None.

## 2987 Change Management for Quality

3-0-3
Students learn how situational leadership styles foster work process and performance improvements. Topics include: change management strategies that lead to innovation and higher quality
products and services. Students participate in structured experiences. Prerequisites: None.

## 2988 Quality Management

3-0-3
Students learn the concepts involved in focusing the resources in a manufacturing and service organization on continual improvement of both quality and productivity. The focus of the course is on quality assurance and establishing a quality culture.
Prerequisites: MGT 2966 or MGT 2967 or program chair consent.

## 2989 Customer Service Systems

2-3-3
A course on the fundamentals of developing and keeping customers. Topics include: creating a customer-focused organizational framework, using customer feedback systems, and developing customer-driven reward systems.
Prerequisites: ENG 1003 or ENG 1010 or ENG 1011.
2996 Project Management
3-0-3
An introduction to project management for various industries. Topics include: setting project goals, managing schedules and workloads, allocating resources, dealing with departmental issues, and delegating within a project team structure.
Prerequisites: None.

## 3110 Employee Benefits:

Concepts and Health Care Benefits
3-0-3
A course on employee benefits. Topics include: health care plan types, plan design, and cost-control techniques.
Prerequisites: None.
3111 Employee Benefits: Design, Administration, and Other Welfare Benefits

3-0-3
A course on employee welfare benefits. Topics include: dependant care and family leave benefits, work/life benefits, vacation, and other time-off benefits; flexible benefit plans and flexible spending accounts; and the administration, funding, communication, and taxation of welfare plans.
Prerequisites: MGT 3110.

## 3112 Retirement Plans: Basic Features

 and Defined Contribution ApproachesA course on designing retirement plans. Topics include: profitsharing plans, thrift and savings plans, Section 401 (k) cash or deferred arrangements, employee stock ownership and stock bonus plans, IRAs, simplified employee pensions, SIMPLE plans, tax-deferred annuities, and executive retirement arrangements. Prerequisites: None.

## 3113 Retirement Plans: Defined Benefit Approaches

 and Plan AdministrationA course on pension plan fundamentals. Topics include: plan design, costs and funding, plan asset investment, plan termination insurance, creating hybrid plans and early retirement incentives, and structuring retirement plans to meet the needs of executives. Prerequisites: None.

## 3114 Compensation: Concepts and Principles 3-0-3

 A course on types of compensation approaches. Topics include: pay structure types; management functions that maintain internal alignment, enhance organizational competitiveness, and create employee incentives; compensating special groups, external market forces affecting compensation, the collective bargaining process, and legal considerations.Prerequisites: None.

# MGT - Management <br> MKT - Marketing <br> MMC - Industrial Maintenance 

## 3115 Human Resources and Compensation Management

3-0-3
An overview of human resource management. Topics include: internal and external factors affecting supervision; incentive programs; total compensation approaches and implementation strategies; employee rights; the application of disciplinary, discharge, and termination situations; labor relations; and the collective bargaining process.
Prerequisites: None.

## 3116 Asset Management

3-0-3
An introduction to asset management in the context of setting investment objectives for pension plan assets. Topics include: securities markets, investment analysis and theory, investment strategies, stock and fixed income security appraisal, and federal securities regulations.
Prerequisites: MGT 3110.

## 3117 Health Economics

3-0-3
A course on health economics issues using microeconomic tools. Students gain a theoretical basis for understanding the practical issues in health plan design, management, and administration. Prerequisites: MGT 3110.

## MKT Marketing

1810 Principles of Sales
3-0-3
A course on the general principles and techniques of effective salesmanship. Topics include: requisite background information for successful sales, and analysis of the selling process. Sales presentation required.
Prerequisites: None.

## 1844 Principles of Advertising

3-0-3
An introduction to the advertising field and to the sales message planning and production process. Topics include: research, media buying and planning, copywriting, art direction, print and broadcast production, media sales, sales promotion and product publicity, budgeting, and scheduling.
Prerequisites: None.

## 1845 Principles of Retail Management

3-0-3
An introduction to the retailing field. Topics include: the technical and theoretical knowledge necessary for retail mid-management employment. Students use case studies to gain practical operating experience.
Prerequisites: None.

## 1873 E-Commerce Business Strategy

An overview of electronic commerce. Topics include: differences and similarities between e-commerce and traditional commerce, and goals and experiences in communicating, gathering information, shopping, and maintaining relationships.
Prerequisites: None.

## 1874 Web Site Selling

2-2-3
A course on choosing and positioning the right product or service for a commercial Web site. Topics include: building traffic to the site, and strategies for selling on the Internet.
Prerequisites: None.

## 1878 Internet Advertising

2-2-3
A course on the principles of advertising as they relate to the unique challenges of advertising on the Web.
Prerequisites: None.

1879 E-Commerce Project
2-4-4
Students design a Web business for a real product including developing a business and marketing plan. Projects must include all areas of e-business.
Prerequisites: Program chair consent.

## 1880 Logistics and Transportation Strategies

3-0-3
A course on the role of transportation logistics in business enterprises. Topics include: the efficient flow of raw materials, in-process inventory, finished goods from point of origin to point of consumption, and transportation modes focusing on the relationships between suppliers, producers, and consumers. Prerequisites: None.

## 1883 Search Engine Strategies

2-2-3
A course on strategies for improving search engine rankings of Web sites on the major search engines. Topics include: the study of how people search online and how the major search engines find and rank pages.
Prerequisites: None.

## 2901 Principles of Marketing 1

3-0-3
A course on the fundamentals of the marketing mix - promotion, distribution, price, and product, and how they relate to business operations in satisfying domestic and international customers. Prerequisites: None.

2902 Principles of Marketing 2
3-0-3
A continuation of MKT 2901, including competitive strategies for attracting, retaining, and growing customers. Topics include: strategic planning, market research, new product development, pricing consideration, personal selling and sales management, retailing, wholesaling, and direct and online marketing.
Prerequisites: MKT 2901.

## 2909 Principles of Telephone Sales

2-0-2
A course on the strategies and skills needed to prospect, sell, and manage accounts when telephone selling in a contact center environment.
Prerequisites: None.
2990 Entrepreneurial Marketing
3-0-3
A course for potential new or small business owners. Topics
include: selecting marketing strategies, managing marketing efforts, and successful marketing methods.
Prerequisites: None.

## 2997 Marketing Research

3-0-3
An introduction to market research emphasizing using research
data in marketing and management decisions. Students design a market research study, use data collection methods, use measurement tools, perform data analysis, use online market research tools, and communicate their research findings.
Prerequisites: MAT 1123 or MAT 1151, MKT 2902.

## 2998 Direct Marketing

3-0-3
A course on direct marketing theory and practice. Topics include: direct marketing's function in company marketing strategies, directresponse television/radio strategies, database marketing, list selection and evaluation, telemarketing, catalog marketing, fulfillment, and internet marketing. Students plan a direct marketing program. Prerequisites: MKT 2902, MKT 1844.

## MMC Industrial Maintenance

A review of basic mathematical skills emphasizing math used in

# MMC - Industrial Maintenance MRDD - Mental Retardation \& Developmental Disabilities MUS - Music 

the maintenance trades. Topics include: decimals, fractions, percents, ratios, proportions, roots, powers, basic algebra, and basic trigonometry.
Prerequisites: None.

## 2010 Mechanical Drive Maintenance

A course on the fundamentals of mechanical transmission systems used in industrial applications. Topics include: operation, installation, performance analysis, and design of basic mechanical transmission systems and using chains, v-belts, spur gears, bearings, and couplings.
Prerequisites: None.

## 2020 Introduction to Bearings, Seals \& Lubrication

An introductory course on how to operate, install, analyze, troubleshoot, and select bearings, gears, and lubrication for mechanical systems.
Prerequisites: None.

## 2030 Vibration Analysis for Mechanical Systems

2-1-2
A course on the measurement, analysis, and reduction of vibration in industrial machinery. Topics include: vibration concepts, meters, measurement, baseline comparisons, severity charts, isolation, and dampers.
Prerequisites: None.
2040 Laser Alignment for Mechanical Systems 2-1-2
A course on the setup and operation of laser alignment tools to align a variety of industrial applications. Topics include: motor base adjustment, laser safety, alignment principles, laser operation, alignment setup, vertical and parallel alignment, and soft foot correction.
Prerequisites: None.

## MRDD Mental Retardation \& Developmental Disabilities

1220 Interviewing \& Counseling for the MR/DD Professional

3-0-3
A course on case management/service coordination for interviewing and counseling persons with MR/DD and their families. Topics include: methods of interviewing/counseling, confidentiality, documentation, identifying need for crisis intervention, conflict management skills, and implementing and reinforcing professional boundaries.
Prerequisites: Employed by a County Board of MR/DD or instructor consent.

## 1221 Team Process for the MRDD Professional

A course on the effective development of Professional Service Teams to provide services to the MR/DD population. Topics include: MR/DD team development, roles and responsibilities within MR/DD teams, and managing conflict within teams and with individuals served.
Prerequisites: Employed by a County Board of MR/DD or instructor consent.

1222 Behavior Management for the MR/DD Professional
A course on positive reinforcement behavior management techniques used with the MR/DD population. Topics include: defining and monitoring behaviors, identifying appropriate reinforcements, determining if crisis intervention is needed, and applying appropriate ethical and legal standards.
Prerequisites: Employed by a County Board of MR/DD or instructor consent.

## 1223 Introduction to <br> MR/DD for the MR/DD Professional

3-0-3
A course on the needs of persons with MR/DD and providing quality services to meet those needs. Topics include: definition and diagnosis of MR/DD, prevention, requirements for services, therapies/treatments/services, rights and responsibilities, laws, and resources.
Prerequisites: Employed by a County Board of MR/DD or instructor consent.

## 1224 Habilitation Programming

 for the MR/DD ProfessionalA course on habilitation, vocational, and recreational alternatives for persons with MR/DD. Topics include: assessment tools, transitioning methods; alternatives to the traditional workshop; inclusion in the community; and use of technology, materials, and aids to develop or expand skills.
Prerequisites: Employed by a County Board of MR/DD or instructor consent.

1225 Principles of Work for the MR/DD Professional $\begin{aligned} & \text { 3-0-3 } \\ & \text { A course on work and employment principles for individuals with }\end{aligned}$ MR/DD. Topics include: MR/DD system's role in employment skill development; work designs and settings; job development, placement, and retention; production and motivational techniques; documentation; community/customer relations; marketing; and employment service resources.
Prerequisites: Employed by a County Board of MR/DD or instructor consent.

1226 Principles of Self-Determination for the MRDD Professional
A course on the concepts and principles of self-determination as they pertain to the lives of persons with mental retardation or developmental disabilities. Topics include: philosophies, practices, challenges, and practical strategies for the implementation of self-determination by MR/DD professionals
Prerequisites: Employed by a County Board of MR/DD or instructor consent

## MUS Music

1665 Introduction to Music:

> Middle Ages to Early 19th Century

An introduction to major periods in Western musical history from the Middle Ages to the early nineteenth century. Topics include: major composers of the Western musical tradition and development of perceptive listening habits through analysis of compositional styles and techniques. Prerequisites: None.

## 1666 Introduction to Music:

The 19th and 20th Centuries
An introduction to the major periods in Western musical history from the nineteenth century Romantic period to the twentieth century. Topics include: jazz, American musicals, early rock, and developing perceptive listening habits through analyzing compositional styles and techniques.
Prerequisites: None.
1667 Introduction to Music: Musical Styles
An introduction to musical styles. Topics include: voices and the musical stage in Western culture including jazz, ragtime, blues, swing, and other styles presented in American musicals and operettas of Broadway and Hollywood. Emphasizes development of perceptive listening habits.
Prerequisites: None.

MUS - Music
NUR - Nursing

## 1668 Special Topics in Music

Var-Var-Var
A course involving study and discussion of selected topics in music. Content and emphasis may vary from term to term. Prerequisites: None.

## NUR Nursing <br> 4918 Ohio Nursing Articulation Model Transitions Course

3-5-5
A course for LPNs participating in the Ohio Nursing Articulation Model. Students validate prior learning, enhance knowledge of the nursing field, begin transition to the RN role, and prepare for advanced placement into a Nursing Associate Degree program. Prerequisites: Admitted to the NURP technical sequence or NURP program chair consent.
Corequisites: BIO 4016.

## 4922 Role Transition in Nursing 1

4-5-6
A course for the LPN admitted to the Alternative Track. Topics include: wellness across the life span and review of common health problems. Students apply content in selected community and hospital settings.
Prerequisites: BIO 4016, NUR 4918 (minimum grade C for both).

## 4923 Mental Health Nursing (NURP)

A course on nursing care of the emotionally distressed client. Topics include: theories of human behavior, major psychiatric disorders, and professional use of self to effectively communicate and provide care. Clinical experiences occur in a variety of settings.
Prerequisites: NUR 4922 (minimum grade C).
Corequisites: NUR 4928.
4924 Nursing of Children (NURP)
A course for the LPN admitted to the Alternative Track. Topics include: nursing care of the infant through adolescent within the family unit, effective communication, development issues, childhood illnesses, and their impact on the family. Clinical experiences occur in a variety of settings.
Prerequisites: PSY 1508, NUR 4923, NUR 4928 (minimum grade C for all).
Corequisites: NUR 4925.

## 4925 Perinatal Nursing and

 Health Issues of Women (NURP) 3-6-5A course for the LPN admitted to the Alternative Track. Topics include: nursing care of the childbearing family, reproductive and health issues of women, sexually transmitted infections, and perinatal experiences. Clinical experiences occur in a variety of settings. Prerequisites: PSY 1508, NUR 4923, NUR 4928 (minimum grade C). Corequisites: NUR 4924.

## 4926 Adult Nursing (NURP)

A course for the LPN admitted to the Alternative Track. Topics include: holistic nursing responses to medical/surgical health problems, continuity of care, and collaboration. Clinical experiences occur in a variety of acute care settings. Prerequisites: NUR 4924, NUR 4925 (minimum grade C for both).

## 4927 Role Transition in Nursing 2

6-12-10
A course that focuses on transition to professional nursing for the LPN admitted to the Alternative Track. Achievement of a predetermined score on a national standardized nursing achievement exam is a requirement for completion.
Prerequisites: NUR 4926 (minimum grade C).

## 4928 Gerontological Nursing

2-0-2
A course on nursing care of the older adult. Topics include: aging
processes, health promotion, and special concerns of the aging population.
Prerequisites: NUR 4922 (minimum grade C).
Corequisites: NUR 4923.

## 4931 Nursing Skills Laboratory 1

0-3-1
The first of two skills lab courses. Topics include: selected psychomotor nursing skills, medical math skills, medical terminology, and basic computer skills.
Prerequisites: Admitted to the nursing technical sequence. Corequisites: NUR 4933.

## 4933 Introduction to Nursing

4-3-5
A technical course on the role of nursing in health care. Topics include: critical thinking, professional behavior, nursing process, effective communication, teaching/learning principles, and cultural diversity. Includes laboratory/clinical experiences.
Prerequisites: Admitted to the nursing technical sequence.
Corequisites: NUR 4931.
4937 Nutrition and Diet Therapy in Nursing
2-2-3
Fundamental principles of normal and therapeutic nutrition for individuals throughout the lifespan. Lab activities include a variety of application processes including alternative methods for provision of nutrients. Team taught by an RD and an RN. Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946 (minimum grade C).

## 4941 Nursing Skills Laboratory 2

0-3-1
The second of two skills lab courses. Students practice and demonstrate competency in the performance of selected intermediate-level psychomotor and math skills.
Prerequisites: PSY 1508, BIO 4016, NUR 4931, NUR 4933
(minimum grade C).
Corequisites: NUR 4943, NUR 4946, BIO 4018.

4943 Common Health Problems in Nursing 6-6-8
Planning and administration of basic nursing care for adults. Topics include: nursing response to common health problems such as diabetes, pain, the perioperative experience, immune responses, and cardiovascular and respiratory diseases.
Prerequisites: PSY 1508, BIO 4016, NUR 4931, NUR 4933
(minimum grade C).
Corequisites: NUR 4941, NUR 4946, BIO 4018.
4946 Health Assessment in Nursing 1
1-3-2
A course on health assessment. Topics include: assessment of
thorax, lungs, heart, blood vessels, abdomen, and skin; interviewing; documentation; and physical assessment skills. Students apply skills in clinical settings.
Prerequisites: PSY 1508, BIO 4016, NUR 4931, NUR 4933
(minimum grade C).
Corequisites: NUR 4943, NUR 4941, BIO 4018.
4953 Mental Health Nursing
3-6-5
Nursing care of the emotionally distressed client. Topics include:
theories of human behavior, major psychiatric disorders, and professional and sensitive use of self to effectively communicate and provide care. Clinical experiences occur in a variety of settings. Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946 (minimum grade C).
Corequisites: NUR 4954, NUR 4956.
4954 Gerontological Nursing
3-6-5
A course on nursing care of the older adult. Topics include:
aging processes; special concerns for older adults; promotion,

# NUR - Nursing <br> OPT - Ophthalmic Optics Technology 

maintenance, and restoration of health; and coping with chronic
illness. Clinical experiences occur in a variety of settings.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946
(minimum grade C).
Corequisites: NUR 4953, NUR 4956.
4956 Health Assessment in Nursing 2 1-3-2
The second of two health assessment courses. Topics include: assessment of head, neck, breast, neurological, and musculoskeletal systems.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946 (minimum grade C).
Corequisites: NUR 4954, NUR 4953.
4963 Perinatal Nursing and Womens Health Issues 3-6-5
Nursing care of the childbearing family. Topics include: effective communication with families, women's health and reproductive issues, sexually transmitted infections, and the perinatal experience. Clinical experiences occur in a variety of settings. Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946 (minimum grade C).
Corequisites: NUR 4964.

## 4964 Nursing Care of Children

 3-6-5A course on nursing care of the infant through adolescent within the family unit. Topics include: effective communication, developmental issues, childhood illnesses, and their impact on the family. Clinical experiences occur in a variety of settings.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946
(minimum grade C).
Corequisites: NUR 4963.

4973 Adult Nursing
6-12-10
A course on holistic nursing responses to medical-surgical health problems. Topics include: continuity of care and collaboration. Clinical experiences occur in a variety of acute care settings. Prerequisites: NUR 4953, NUR 4954, NUR 4956, NUR 4963, NUR 4964 and completion of SPE 10XX and nursing electives (minimum grade C).

## 4981 Transitional Clinical Experience

0-18-6
Application of nursing curriculum in a variety of settings. Topics include: care planning, supervision and delegation. Achievement of a predetermined score on a national standardized nursing achievement exam is a requirement for completion.
Prerequisites: NUR 4973, ENG 1010 or ENG 1003
(minimum grade C).
Corequisites: NUR 4982.

## 4982 Management of Client Care

6-0-6
Provision of care for a group of clients in a variety of settings and the transition from the role of student to that of professional nurse. Topics include: role definition, delegation, management, coordination, decision-making, and the Ohio law regulating the practice of nursing.
Prerequisites: NUR 4973, ENG 1010 or ENG 1003
(minimum grade C).
Corequisites: NUR 4981.
4993 Special Topics in Nursing
Special topics reflecting dynamic trends in nursing and special client, diagnostic or other related issues.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946 (minimum grade C).

4998 Special Studies in Nursing Var-Var-Var
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member, carried on outside the classroom. Before registration, students must have the plan of study approved by a supervising faculty member and the Nursing program chair. Prerequisites: Program chair consent.

4999 Special Studies in Nursing
Var-Var-Var
An student-initiated academic pursuit, mutually agreed upon by the student and faculty member. Before registration, students must have the plan of study approved by a supervising faculty member and the Nursing program chair.
Prerequisites: Program chair consent.
9372 Cooperative Education in Nursing Settings $\mathbf{1 - 1 6 - 2}$
Work experience for application of knowledge and skills verified by successful nurse aide state testing. Classroom activities focus on work issues.
Prerequisites: BIO 4018, NUR 4941, NUR 4943, NUR 4946
(minimum grade C), State Tested Nurse Aide on Ohio Registry

## OPT Ophthalmic Optics Technology

6810 Ophthalmic Optics 1
Topics include: the electromagnetic spectrum, ultra-violet and infrared radiation, laws of reflection, plain and curved mirrors, laws of refraction and total internal reflection, refraction through prism, refraction at a single spherical surface, refraction through lenses, and cylindrical/toric surfaces.
Prerequisites: MAT 1171.
6812 Ocular Anatomy and Physiology
3-3-4
A course on the structure and function of the eye. Topics include: corneas, tear film, sclera, uveal tract, retinas, optic nerves, lenses, vitreous bodies, eyelids, and orbits.
Prerequisites: None.
6820 Ophthalmic Optics 2
A continuation of OPT 6810. Topics include: thin lens image formation and magnification, multiple lens systems, thick lens equation, lens aberrations, concave and convex mirrors, optical instruments, magnifiers, microscopes and telescopes, characteristics of light, interference, diffraction, and polarization.
Prerequisites: OPT 6810.
Corequisites: MAT 1172.

## 6830 Ophthalmic Optics 3

A continuation of OPT 6820. Topics include: emmetropia and ametropia of the eye; spectacle and contact lens corrections, accommodation, and ranges of clear vision; equivalent power, principal planes, and vertex distance; and bifocal, sphero-
cylindrical, and induced prism lenses.
Prerequisites: OPT 6820.

## 6831 Ophthalmic Dispensing 1

2-3-3
Topics include: basic ophthalmic frame parts; types of frames; selection of style and type of frame for a given prescription; alignment, adjustment, and repair of eyewear; and measuring interpupillary distance.
Prerequisites: OPT 6820.
6833 Contact Lenses 1
An introduction to the historical development of contact lenses.
Topics include: care and handling of various types of contact lenses; instruction on insertion, removal, and hygiene; and contact lens materials.
Prerequisites: None.

## OPT - Ophthalmic Optics Technology OT - Information Management

## 6841 Ophthalmic Dispensing 2 <br> 2-3-3

A continuation of OPT 6831. Topics include: verifying prescription; ordering proper lens type; record keeping; lens materials, characteristics, tints, and coatings; and fitting bifocal lenses. Prerequisites: OPT 6831.

## 6843 Contact Lenses 2 <br> 3-3-4

A continuation of OPT 6833. Topics include: contact lens fitting techniques, fitting rules, wearing schedules, contact lens optics, and hard and soft contact lenses.
Prerequisites: OPT 6833.

## 6845 Mechanical Optics 1

3-3-4
Topics include: surfacing and finishing of spherical and cylindrical lenses; lens power analysis; and surfacing, neutralization, layout, and edging of single vision and multifocal lenses.
Prerequisites: OPT 6820.

## 6851 Ophthalmic Dispensing 3

2-3-3
A continuation of OPT 6841. Topics include: fitting of cataract lenses, progressive lenses, fitting procedures for special situation dispensing, contact lens dispensing and after care problems for soft and rigid contact lenses.
Prerequisites: OPT 6841.

## 6855 Mechanical Optics 2

3-3-4
A continuation of OPT 6845. Topics include: prismatic lenses; and surfacing, neutralization, layout, and edging of moderating advanced assignments including cataract, trifocal, prismatic, and other special lenses.
Prerequisites: OPT 6845.

## 6857 Ophthalmic Clinical Procedures 1

3-3-4
Topics include: case history; visual acuity; refractive errors such as myopia, hyperopia, and astigmatism; retinoscopy; keratometry; and ophthalmometry.
Prerequisites: OPT 6830.

## 6867 Ophthalmic Clinical Procedures 2

3-3-4
Topics include: low vision and low vision aids, auto-refraction, ophthalmic surgical procedures, tonemetry, the visual field, testing binocular vision, and visual therapy techniques.
Prerequisites: OPT 6857.

## 6899 Ophthalmic Special Problems

Var-Var-Var
Individual and independent study and special projects pertaining to the particular program in which the student is enrolled. The study may deal with an idea or concept not usually covered by existing courses at the College or with a specific problem found in the industry in which the student is employed. Open to fourth and fifth term students by special arrangement with the instructor and program chair. Students receive grades of $S$ or $U$ for this course. Prerequisites: Program chair consent.

## OT Information Management

1850 Introduction to Computer Applications
3-2-4
An introductory course on computer concepts and theory, emphasizing business applications. Laboratory work includes operating PCs using Microsoft Word, PowerPoint, and Excel application software. Distance learning students must provide their own software.
Prerequisites: OT 3007 (minimum grade C), or keyboarding skill level at 20 words per minute.

1863 Electronic Spreadsheets (Excel) 2-2-3
A course on basic spreadsheet operations, commands, formula
writing, functions, and graphing using Microsoft Excel.
Prerequisites: DE 0024 (minimum grade C), or appropriate mathematics COMPASS test score

1864 Advanced Electronic Spreadsheets (Excel)
2-2-3
A continuation of OT 1863. Topics include: three-dimensional spreadsheets, advanced formula writing, advanced functions, database construction and manipulation, and introduction to macros. Prerequisites: OT 1863 (minimum grade C).

## 3002 Document Formatting 1

2-3-3
A continuation of OT 3001. Topics include: review of keyboard and techniques; improving speed and accuracy; and progress through personal documents, basic business communications, unbound reports, and tables.
Prerequisites: OT 3007 (minimum grade C).

## 3003 Document Formatting 2 <br> 2-3-3

A continuation of OT 3002. Topics include: developing skills, knowledge, techniques, and problem solving applicable to production keyboarding and composition.
Prerequisites: OT 3058, OT 3002 (minimum grade C) or keyboarding skill level at 40 words per minute.

3005 Medical Formatting and Transcription
2-3-3
An introduction to medical formatting and transcription with a review in anatomy, medical terminology, symptoms and disease conditions, and grammar as it relates to the field of medical documents. Topics include: proper medical and standard document formatting, and efficient operation and use of dictation equipment for medical formatting and terminology. Prerequisites: MCH 4807, OT 3003 (minimum grade C for both).

3006 Keyboarding: Skill Development
2-3-3
A keyboarding course for students who have had previous instruction on the computer and know the keyboard, but who have not achieved proficiency in speed and/or accuracy to continue on to OT 3002 or OT 3003.
Prerequisites: OT 3007 (minimum grade C) or keyboarding skill level at 20 words per minute.

## 3007 Introduction to Keyboarding

3-0-3
A course on keyboarding on computers for students who need to learn basic keyboarding skills.
Prerequisites: None.

## 3016 Introduction to Legal Environment

3-0-3
An introductory course on the legal environment. Topics include: areas of practice, structure of law firms, administrative functions, court systems and procedures, and legal terminology. Prerequisites: None.

## 3017 Legal Formatting

2-3-3
A course on developing legal formatting speed and accuracy.
Topics include: formatting documents and forms found in common areas of law, legal terminology, and Bluebook citations.
Prerequisites: OT 3003, OT 3016 (minimum grade C for both).

## 3018 Legal Transcription

2-3-3
A course on developing proficiency with transcribing equipment while continuing to enhance legal formatting and terminology skills. Dictation includes letters, memos, and a variety of legal documents with attorney instructions regarding preparation and filing. Prerequisites: OT 3017 (minimum grade C).

3019 Law Office Practice
A capstone course that uses a project-based approach to completing activities relevant to the administrative duties of the Legal Assistant.
Prerequisites: OT 3018, LAW 1830 (minimum grade C).

## 3021 Office Procedures 1

2-3-3
An introduction to the development of personal qualities essential to the office worker and the development of principles and procedures fundamental to basic office duties and activities. Prerequisites: OT 3007 (minimum grade C) or keyboarding skill level at 20 words per minute.

3022 Proofreading and Editing
A continuation of OT 3035. Students proofread and edit documents online and manually that contain errors in formatting, numbers, capitalization, word division, grammar, pronoun agreement, punctuation, abbreviation, spelling, and synonyms. Students also proofread for content, conciseness, and clarity. Prerequisites: OT 3035 and OT 3058 (minimum grade C for both).

3023 Advanced Machine Transcription and Dictation 2-3-3
An integrated approach to machine transcription and dictation combined with intensive instruction in English usage and grammar. Topics include: operating dictation/transcription equipment, and applying language usage and other skills to the production of various types of written communications.
Prerequisites: OT 3022 (minimum grade C).
3024 Office Procedures 3
2-2-3
A continuation of OT 3032. Topics include: composing, editing, and handling business communications; setting priorities; researching and preparing reports; making travel arrangements; and using office financial and graphics presentation software. Students must have proficiency with word processing software. Prerequisites: OT 3032 (minimum grade C).

## 3032 Office Procedures 2

2-3-3
A continuation of OT 3021. Topics include: oral and written office communications and professional development including self discovery, goal setting, problem solving, decision making, stress management, negotiating, and assertiveness.
Prerequisites: OT 3021 (minimum grade C).

## 3035 Essential Business Correspondence

An intensive, competency-based business correspondence course. Topics include: grammar, punctuation, proofreading, spelling, vocabulary building, and office correspondence origination. Students must reach an $80 \%$ competency level to pass the course. Prerequisites: ENG 1001 (minimum grade C).

## 3036 Project Management Applications

2-3-3
A hands-on course in which students use Microsoft Project software to develop skills and understanding of the project management process.
Prerequisites: OT 3002, OT 3003, OT 3006, or OT 3007 (minimum grade C), or keyboarding skill level at 20 words per minute

## 3058 Microsoft Word for Windows

A course on the practical application of Microsoft Word for Windows. Students complete hands-on exercises and problems using a PC.
Prerequisites: OT 3002, OT 3003, OT 3006, or OT 3007
(minimum grade C), or keyboarding skill at 30 words per minute or OT 1850 (minimum grade C).

3064 Introduction to PowerPoint
2-3-3
An introduction to the basics of business presentation graphics using Microsoft PowerPoint presentation graphics software. Keyboarding skill required.
Prerequisites: OT 3002, OT 3003, OT 3006, or OT 3007
(minimum grade C), or keyboarding skill at 20 words per minute
3066 Integrated Information Processing
2-3-3
A course on sharing data between applications using the Microsoft Office Suite, which includes word processing, database, spreadsheet, and graphics applications.
Prerequisites: OT 3058, OT 3064, OT 1863, OT 3068
(minimum grade C for all).
3068 Database Management: Access 1
A course on database management using Microsoft Access software. Topics include: defining, designing, creating, and maintaining a database.
Prerequisites: Appropriate COMPASS keyboarding score.
3069 Advanced Microsoft Word
A continuation of OT 3058. Topics include: advanced character/line formatting; advanced page formatting; advanced document formatting; using templates, macros, frames, pictures, Microsoft Draw, tables, and columns; and merging and sorting documents.
Prerequisites: OT 3058 (minimum grade C).
3070 Administrative Office Management 1
3-0-3
An upper-level office management course that emphasizes
managing office environments, employees, systems, and functions. Prerequisites: MGT 2965 (minimum grade C).

3073 Microsoft Word Certification
A course that reviews and teaches skills for Word Expert Level certification. Topics include: formatting documents with special features; merging documents; sorting and selecting data; working with shared documents; creating tables and indexes; recording, running, and editing macros; and creating fill-in forms.
Prerequisites: OT 3058,OT 3069 (minimum grade C for both).
3074 Database Management: Access 2
2-3-3
An advanced course on database management using Microsoft Access software. Students use the advanced features of Access to customize, integrate, and automate applications.
Prerequisites: OT 3068 (minimum grade C) or equivalent.
3075 Advanced PowerPoint
2-2-3
A continuation of OT 3064. Topics include: adding visuals to presentations, importing and exporting data, customizing and creating slide shows, creating output and delivering presentations, and linking and embedding objects and files.
Prerequisites: OT 3064 (minimum grade C).
3076 Information Systems for Managers
A course on basic principles of information systems. Topics include: use of the Internet, e-mail, and database software. Prerequisites: OT 1850 (minimum grade C).

## 3092 Desktop Publishing with

Microsoft Publisher and FrontPage
2-2-3
A course on the production of professional-looking documents combining text, pictures, illustrations and photographs using desktop publishing tools in Microsoft Publisher software and the creation, editing, publishing and management of Web pages using Microsoft FrontPage Software.
Prerequisites: OT 1850 or OT 3095 (minimum grade C for both). keyboarding skill level at 30 words per minute.

## OT - Information Management OTA - Occupational Therapy Assistant

## 3093 Workplace Technologies

2-2-3
A course on the latest tools used in a business environment, such as pocket PCs, tablet PCs, digital cameras, scanners/PDF files, smart boards, and speech recognition software applications. Topics change as new technology develops.
Prerequisites: OT 3007 or keyboarding skill level at 25 words per minute.

## 3095 Introduction to Computers, Windows, Internet 2-3-3

 An introduction to the tools available to perform tasks effectively using Windows and the Internet. Students become acquainted with terminology and receive ample hands-on lab time. This course is specifically for new users.Prerequisites: OT 3007 (minimum grade C), or keyboarding skill level at 20 words per minute.

## 9227 Cooperative Education-

 Information Management1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to EA, IP, LA, MAA, or OM program; 2.0 minimum GPA.

## 9247 Cooperative Education-

 Information Management-Parallel1-20-1
Students seeking an Associate degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to EA, IP, LA, MAA, or OM program; 2.0 minimun GPA.

## OTA Occupational Therapy Assistant

4600 Introduction to Occupational Therapy
An introduction to the history, philosophy, and development of occupational therapy. Topics include: relationship to other allied health professions, role and function of Occupational Therapists and Occupational Therapy Assistants, and team approach. Students observe current practice in community occupational therapy settings.
Prerequisites: Admitted to Occupational Therapy Assistant program.

## 4601 Fundamentals of Crafts

0-2-1
A course on fundamental craft techniques for professional application. Topics include: ceramics, wood projects, needlework, knitting, tie dye, rubber stamping, and others.
Prerequisites: Admitted to the OTA program.

## 4610 Theory of Occupational Therapy

Topics include: an introduction to the developmental process of human performance; exploration of occupational tasks and roles from birth to death; instruction in age-appropriate balance of work, self-care, play/leisure; introduction to the impact of disease and function in human occupation; and development of the therapeutic use of self.
Prerequisites: OTA 4600 (minimum grade C).

## 4611 Occupational Therapy Concepts and Skills -

 PsychosocialThe role of occupational therapy in the treatment of adults in a mental health setting. Topics include: development of analysis and observational skills, use of self and group for therapeutic
intervention, application of group process, documentation, communication, and interpersonal skills.
Prerequisites: OTA 4612, OTA 4622 (minimum grade C).

## 4612 Occupational Therapy Concepts and Skills-

3-0-3
The role of occupational therapy in the treatment of children with physical and/or psychological dysfunction. Topics include: normal development, developmental disabilities, the selection of functionally significant, age-appropriate treatment interventions, documentation skills, and the team approach.
Prerequisites: OTA 4610, OTA 4620 (minimum grade C).
4613 Occupational Therapy Concepts and Skills Physical Disabilities
The role of occupational therapy in the treatment of adults with physical dysfunction including acute care and rehabilitation. Topics include: treatment techniques used for various diagnoses, treatment planning and implementation, and documentation skills. Emphasizes adolescence through adulthood.
Prerequisites: OTA 4611, OTA 4621 (minimum grade C).

## 4614 Occupational Therapy Concepts and Skills -

 GerontologyThe role of occupational therapy with the elderly population. Topics include: the aging process and function pertinent to the elderly. Students explore the role of the OT Assistant in nontraditional settings.
Prerequisites: OTA 4613, OTA 4623 (minimum grade C).

## 4620 Techniques of Occupational Therapy

0-4-2
The use of crafts and activity as therapeutic modalities in treatment toward function. Topics include: the concepts of activity analysis and therapeutic adaptations, problem-solving, and critical thinking skills.
Prerequisites: OTA 4600 (minimum grade C).

## 4621 Occupational Therapy Media - Psychosocial <br> 0-4-2

Therapeutic intervention for adults in a mental health setting. Topics include: development of leadership skills necessary for a group setting, applying group process and using purposeful activity and crafts as therapeutic tools, problem solving, and critical thinking skills. Emphasizes adolescence through adulthood. Prerequisites: OTA 4622 (minimum grade C).

4622 Therapeutic Media-Infants and Children
0-4-2
Therapeutic intervention with infants and children. Topics include: using play as a therapeutic tool; evaluation of other occupational performance skills; adaptive equipment; therapeutic techniques for positioning, handling, and feeding; basic developmental screening; problem solving; and critical thinking skills.
Prerequisites: OTA 4620 (minimum grade C).
4623 Clinical Competencies for Occupational TherapyPhysical Disabilities

0-6-3
A course on therapeutic intervention for physically disabled adults in acute care and rehabilitation settings. Topics include: techniques for activities of daily living, therapeutic adaptations, orthotics, adaptive/assistive equipment, problem solving, and critical thinking skills.
Prerequisites: OTA 4621 (minimum grade C).

## 4624 Therapeutic Media-Gerontology

0-4-2
Therapeutic media for adults and elderly in a variety of settings. Occupational therapy treatment approaches in non-traditional and emerging settings are explored. Topics also include physical

# OTA - Occupational Therapy Assistant PAS - Hospitality Tech. 

dysfunction and aging.
Prerequisites: OTA 4623 (minimum grade C).
Corequisites: OTA 4614.

## 4625 Survey of Therapeutic Media

 for Occupational TherapyA course on using crafts and activities, cost analysis, and application in various clinical settings. Students develop teaching and in-servicing skills.
Prerequisites: OTA 4624, OTA 4614 (minimum grade C).

## 4631 Occupational Therapy Fundamentals Practice

A course on professional concerns for the practicing Occupational Therapy Assistant. Topics include: licensure, liability, professionalism, continuing education, national registration and promoting occupational therapy. Students prepare for Level 2 Field Work Experience.
Prerequisites: OTA 4614, OTA 4624 (minimum grade C).
4633 Kinesiology for Occupational Therapy
A study of the movement of body parts, stressing the relationship to rehabilitation therapy.
Prerequisites: OTA 4611, OTA 4621 (minimum grade C).

## 4636 Orthotics and Physical Agent Modalities <br> 0-2-1

A course in orthotic positioning devices for the upper extremity and physical agent modalities. Topics include: fabrication, application, fitting, and training in the use of orthotic positioning devices; administration of superficial thermal and mechanical modalities to improve occupational performance including hot packs, cold modalities, paraffin, CPM, TENS, and FES.
Prerequisites: OTA 4611, OTA 4621 (minimum grade C).

## 4651 Occupational Therapy Assisting

 Field Work 1 (Level 1)Directed observation and participation in a community occupational therapy setting. Students must provide proof of current CPR and First Aid.
Prerequisites: OTA 4612, OTA 4622, OTA 4652 (minimum grade C).

## 4652 Occupational Therapy Assisting

Field Work 2 (Level 1)
Directed observation and participation in a community occupational therapy setting. Students must provide proof of current CPR and First Aid.
Prerequisites: OTA 4610, OTA 4620, EMS 4735
(minimum grade C), or equivalent.

## 4653 Occupational Therapy Assisting

Field Work 3 (Level 1)
Directed observation and participation in a community occupational therapy setting. Students must provide proof of current CPR and First Aid.
Prerequisites: OTA 4612, OTA 4622, OTA 4652 (minimum grade C).

## 4660 Occupational Therapy Assisting

Field Work 4 (Level 2)
0-40-6
A clinical practicum in occupational therapy settings. An eightweek period of full time work experiences under the supervision of a registered occupational therapy practitioner provides the student with in-depth experience in delivering occupational therapy services to various ages and conditions.
Prerequisites: OTA 4653 (minimum grade C).

## 4661 Occupational Therapy Assisting

 Field Work 5 (Level 2)0-40-6
A clinical practicum in occupational therapy settings. An eightweek period of full time work experiences under the supervision of a registered occupational therapy practitioner provides the student with in-depth experience in delivering occupational therapy services to various ages and conditions.
Prerequisites: OTA 4653 (minimum grade C).
4680 Introduction to Activities for Geriatrics
3-2-4
A course on providing diversional activities to geriatric clients. Topics include: concepts of wellness and illness for geriatric clients, and using group and individual diversional activity in geriatric settings. Prerequisites: DE 0005 or appropriate COMPASS score.

4681 Activity Planning for Geriatrics
A course on concepts of activity analysis for geriatric clients.
Topics include: effective program planning, development, and implementation.
Prerequisites: None.
4682 Geriatric Activity Coordinator Practicum
1-10-2
A 90-hour supervised practicum experience that provides students with the necessary patient interaction and documentation of experience required for NCCAP-BEC certification.
Prerequisites: None.
4699 Special Studies - OTA
Var-Var-Var
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health and Public Safety. Students receive grades of $S$ or $U$ for this course. Prerequisites: None.

## PAS Hospitality Tech.

2850 Baking Theory 1
3-0-3
An introduction to the baking and pastry industry. Topics include: the history of baking and its grass roots beginnings to its evolution into a modern technology; and the principles, ingredients, and formulas of basic flour confectionery production.
Prerequisites: None.
Corequisites: PAS 2860.
2851 Baking Theory 2
An introduction to the theory of yeast. Topics include: yeast's properties as a biological leavening agent in dough; basic rich and lean doughs, their ingredients, and how they function with yeast; mixing methods; proofing systems; dough retardation, and baking equipment.
Prerequisites: PAS 2850, PAS 2860.
Corequisites: PAS 2861.

## 2853 Pastry Theory

A course on making and decorating cakes and cookies. Topics include: selecting ingredients, mixing and make-up methods, using bases and mixes, decorating cakes and cookies, and fruit-based desserts.
Prerequisites: PAS 2851, PAS 2861.
Corequisites: PAS 2863.

## 2860 Basic Baking 1

1-4-3
A hands-on introduction to basic baking principles. Topics include: flour development, ingredient function, weighing and measuring procedures, and safe use of baking equipment. Students prepare quick breads, puff pastry, and various pies and tarts.
Prerequisites: None.
Corequisites: PAS 2850.

## PAS - Hospitality Tech. <br> PBA - Pre-Business Administration <br> PE - Physical Education

2861 Basic Baking 2 1-4-3
A hands-on introduction to yeast-raised dough production. Topics include: dough preparation, sweet roll dough, laminated yeast raised dough, fritters, and waffles. Students produce these items and explore convenience product usage in the baking and pastry industries.
Prerequisites: PAS 2850, PAS 2860.
Corequisites: PAS 2851.

## 2862 Nutritional Baking

1-3-2
A hands-on course in which students produce quantity nutritional baked products. Topics include: nutritional significance of ingredients; and substitution of high fat, high carbohydrate, and high sodium ingredients. Students learn recipe modification techniques. Prerequisites: PAS 2850, PAS 2860, DT 1202.

## 2863 Pastry Production

1-4-3
A hands-on introduction to producing cakes, cookies, and
fruit-based desserts. Topics include: formulas, make-up methods, finishing, and decorating. Students produce decorated cakes and cookies, tortes, gateaux, and petit fours.
Prerequisites: PAS 2851, PAS 2861.
Corequisites: PAS 2853.

## 2864 Introduction to Pastry Design

1-4-3
A hands-on introduction to artistic design using pastry mediums. Topics include: using decorative pastry mediums such as marzipan, pastillage, chocolate, and bread molding. Students produce practice centerpieces.
Prerequisites: PAS 2851, PAS 2861.

## 2865 Advanced Pastry <br> 1-4-3

A study of fine pastry and cake production for buffet presentation. Topics include: advanced cake types and advanced decoration techniques such as stenciling and pattern screening. Students produce choux paste and puff pastry items.
Prerequisites: PAS 2853, PAS 2863, PAS 2864.
Corequisites: PAS 2866.

## 2866 Pastry Buffet and Design

1-4-3
A study of pastry buffets and advanced design techniques. Topics include: pastry buffet set-up and service, display and decoration techniques, and classical dessert service. Students produce quality display centerpieces and a pastry buffet.
Prerequisites: PAS 2853, PAS 2863, PAS 2864.
Corequisites: PAS 2865.

## 2867 Restaurant Dessert Production <br> 2-8-6

A study of dessert production procedures and methods in a restaurant environment. Topics include: producing and presenting classical and modern gateaux, small fancies, plated cold desserts, and hot soufflés; dining room set-up; and tableside dessert cookery. Prerequisites: PAS 2865, PAS 2866.

2868 Introduction to Wedding Cake Design
1-4-3
A study of wedding cake styles and models. Topics include: basic wedding cake make-up, construction, and decorating techniques. Each student produces and decorates a basic wedding cake. Prerequisites: PAS 2853, PAS 2863.

## 2869 Introduction to Celebration Cakes

1-4-3
A study of celebration cakes including birthday, anniversary, and novelty cakes. Topics include: basic styles and make-up of special occasion cakes and decorating techniques such as figure piping and airbrushing. Students produce examples of the cakes. Prerequisites: PAS 2853, PAS 2863.

## PBA Pre-Business Administration

## 9228 Cooperative Education

Pre-Business Administration
1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the PBA program, 2.0 minimum GPA.

## 9248 Cooperative Education

Pre-Business Administration - Parallel
1-20-1
Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit.
Course may be repeated.
Prerequisites: Admitted to the PBA program, 2.0 minimum GPA.

## PE Physical Education

4030 Relaxation Techniques
0-2-1
A course on techniques used to achieve the relaxation response.
Topics include: relaxation techniques and their physiological effects. Prerequisites: None.

## 4041 Advanced Basketball

0-2-1
A course on advanced basketball shooting, passing, dribbling, and defensive skills. Students participate in breakdown drills to enhance skills and achieve individual improvement. Prerequisites: PE 4067 (minimum grade C).

## 4042 Advanced Scuba Diving

Advanced training includes classroom and pool instruction to advanced scuba certification. Open dives are required and are not included in the cost of the course. Dives can be arranged through the instructor. Equipment rental is the responsibility of the student. Prerequisites: Open water diver certification.

## 4050 Pilates Mat Class

0-2-1
A course based on Joseph Pilates' concepts of body conditioning. Topics include: the effects of posture, flexibility, strength, and breathing techniques on increased body awareness and movement sense.
Prerequisites: None.

## 4051 Movement in Dance

0-2-1
A course on modern dance combining warm-up, stretch, and jazz combinations to attain flexibility and knowledge of jazz dance. The dance technique includes deep core strengthening. Prerequisites: None.

4053 Intermediate Pilates
0-2-1
A course emphasizing movement mastery into a full program to redefine the body's powerhouse. A continuum builds on the principles of control, concentration, fluidity, precision, breath, imagination, and integration to take participants to the next level. Prerequisites: PE 4050 (minimum grade C), or previous experience in Pilates class.

## 4054 Intermediate Yoga

0-2-1
A continuation of PE 4077. Building on basic principles, students explore more advanced postures. A fast-paced class to develop strength and flexibility in addition to greater cardiovascular endurance.
Prerequisites: PE 4077 (minimum grade C), or prior experience in a yoga class.

4055 Basic Swimming
0-2-1
A course for students having little or no previous swimming experience. Basic skills to meet requirements for the American Red Cross Learn-to-Swim courses I, II, III.
Prerequisites: Informed consent.

## 4056 Intermediate Swimming

0-2-1
A course on developing and refining basic swimming strokes.
Topics include: strokes, turns, diving, and water safety skills. Meets the requirements for the American Red Cross Learn-to-Swim levels IV and V.
Prerequisites: Ability to swim 25 yards on stomach and back and swim in deep water; informed consent.

## 4057 Advanced Swimming

0-2-1
Topics include: all styles of swimming, endurance, board diving, speed skills, and safety skills. Meets the requirements for the American Red Cross Learn-to-Swim levels VI and VII. Prerequisites: Deep water swimming ability and 500 yard continuous swim; informed consent

## 4059 International Folk Dancing

Students learn to perform line and circle dances from a variety of regions and cultures, mostly drawn from the Balkan countries and the Middle East.
Prerequisites: None.

## 4060 Racquetball

A course for students with limited or no prior racquetball
experience. Topics include: basic racquetball skills, drills, practice, and actual game play.
Prerequisites: None.

## 4062 Water Aerobics

0-2-1
A course in which students attain a level of fitness through a variety of resistive and aerobic activities performed in shallow water. No swimming ability is required.
Prerequisites: None.

## 4063 Aerobics

A course involving vigorous dance routines and basic exercise forms for cardiovascular conditioning.
Prerequisites: None.

## 4064 Soccer

0-2-1
A course on basic soccer skills. Topics include: techniques and concepts of soccer, rules, terminology, and individual improvement. For men and women.
Prerequisites: None.

## 4065 Golf

0-2-1
A course on basic golf skills. Topics include: techniques and concepts of golf, rules, terminology, and individual improvement. For men and women.
Prerequisites: None.

## 4066 Resistance and Cardiorespiratory Training 0-2-1

A course on techniques for building and retaining muscle mass. Topics include: techniques for cardiorespiratory training resulting in a workout for body sculpting, fitness, and good health. Students learn and practice basic exercise principles.
Prerequisites: None.

## 4067 Basketball

0-2-1
A course on fundamental skills and techniques of basketball.
Topics include: dribbling, shooting, passing, team strategy, rules,
terminology, and individual improvement. For men and women. Prerequisites: None.

4068 Volleyball
0-2-1
A course on basic volleyball skills, techniques, concepts, and an appreciation of the sport as a lifetime activity. For men and women.
Prerequisites: None.
4069 Hiking the Local Trails
A course on hiking basics and safety. Topics include: trip planning, conditioning, minimizing environmental impact, safety precautions, and equipment needs. Activities include local area hikes, personal goal setting, and a related project.
Prerequisites: None.
4070 Advanced Hiking Skills 1-4-3
A continuation of PE 4069. Activities include: longer day hiking and backpacking situations, local area hikes, personal goal setting, a related project, and orienting using map and compass.
Prerequisites: None.

## 4071 Yin Yoga

0-2-1
A yoga class that uses long holds in passive postures with relaxed muscles. Topics include: activating deeper tissues, and practicing various poses with attention to spine, hips, and knees.
Prerequisites: None.
4075 Introduction to Disc Golf
0-2-1
An introduction to the sport of disc golf. Topics include: rules of the game, terminology, history of the sport, disc selection and performance, equipment, basic skills, skill development games, professional organizations, course location and layout, and tournament play.
Prerequisites: None.
4076 Advanced Golf
0-2-1
A continuation of PE 4065. Students drill and practice all facets
of the golf game. Topics include: refining the golf swing and increasing power, distance, and accuracy.
Prerequisites: PE 4065 (minimum grade C), or program chair consent.
4077 Yoga
0-2-1
A course on yoga that combines deep breathing and stretching exercises to gain muscle tone and flexibility. Topics include: de-stressing the mind while energizing the body, and improving circulation, balance, concentration, and clarity of mind.
Prerequisites: None.

## 4078 Scuba Diving

1-3-2
A course on knowledge and skills needed for eligibility for YMCA certification in scuba diving. Topics include: physics and physiology of underwater environment, and classroom and pool sessions. Prerequisites: Demonstrated ability to swim 200 yards, swim underwater for 25 feet on one breath, and ability to remain afloat for 10 minutes.

## 4081 Advanced Tai Chi

0-2-1
A continuation of PE 4180. Topics include: practice in refining skills, and 24 Tai Chi techniques.
Prerequisites: PE 4180 (minimum grade C).
4099 Special Studies in Physical Education Var-Var-Var Students participate in a special exercise program throughout the term. Course goals and objectives are determined by the individual instructor with permission of the dean.
Prerequisites: None.

# PE - Physical Education <br> PHI - Philosophy <br> PHY - Physics 

4179 Aikido 0-2-1
A martial arts course emphasizing a non-aggressive approach to self defense without injury. Topics include: using the energy of an opponent to diffuse an attack with throws, joint locks, and pins. Prerequisites: None.

## 4180 Tai Chi

0-2-1
A course on moderate physical activity to improve flexibility, stamina, balance, and muscle tone. Stress reduction techniques include: gentle movements, breathing exercises, meditation, and mind quieting.
Prerequisites: None.

## PHI Philosophy

1620 Critical Thinking
An introduction to principles of philosophy. Topics include: developing thinking skills used to solve abstract and practical problems, and reviewing standard methods and terminology used to ask philosophical questions (i.e., logic).
Prerequisites: ENG 1001.

## 1621 Introduction to Philosophy

3-0-3
An introduction to philosophical investigation, covering problems and methods of knowledge, reasoning, and morality. Includes survey and analysis of notable Western and Eastern philosophers and their concepts.
Prerequisites: ENG 1001.

## 1625 Ethics 3-0-3

An introduction to philosophical principles of ethics and moral reasoning. Students develop understanding of how to apply ethics in practical situations. Emphasizes making practical decisions with ethical or moral implications using examples related to students' major field of study.
Prerequisites: ENG 1001.

## 1626 Social Ethics

An introduction to philosophical moral reasoning and its application to contemporary social and cultural issues. Topics include: sexual intimacy and marriage, capital punishment, euthanasia, abortion, freedom of speech, racism and affirmative action, war, and terrorism.
Prerequisites: ENG 1001.

## 1628 Special Topics in Philosophy <br> Var-Var-Var

Topics include: study and discussion of selected topics in philosophy. Content and emphasis may vary from term to term. Prerequisites: ENG 1001.

## 1630 Comparative World Religions: Asia

An introduction to the comparative study of major religions of
Asia. Topics include: the historical development, cultural function, and religious traditions of Hinduism, Buddhism, Taoism,
Confucianism, Jainism, Shinto and Sikhism.
Prerequisites: ENG 1001.

## 1631 Comparative World Religions: Middle East

3-0-3
An introduction to the comparative study of the major religions of the Middle East. Topics include: the historical development, cultural function, and religious traditions of Indigenous Religions, Judaism, Christianity, Islam, and New Religious Movements. Prerequisites: ENG 1001.

1632 Introduction to the Old Testament
3-0-3
A nonsectarian systematic survey of the Hebrew Bible or the Old Testament scriptures. Topics include: content, major themes,
historical background, authorship, and literary forms of each book and recent biblical scholarship.
Prerequisites: ENG 1001.
1633 Introduction to the New Testament
3-0-3
An nonsectarian systematic survey of the New Testament scriptures. Topics include: content, major themes, historical background, authorship, and literary forms of each book and recent biblical scholarship.
Prerequisites: ENG 1001.

## PHY Physics

2221 Technical Physics 1
2-3-3
A course on electrical fundamentals primarily for students in the Aviation and Automotive Service Management programs. Topics include: basic electricity, circuit building analysis, VOM instruments, and the fundamentals of analog and digital electronics. Prerequisites: MAT 1162 or appropriate COMPASS mathematics score.

## 2222 Technical Physics 2

2-3-3
An introductory course for students in the Aviation program. Topics include: the kinematics and dynamics of moving objects including rotational motion and machines, pressure, density, the hydraulic lift, and Bernoulli's Principle.
Prerequisites: MAT 1171.

## 2223 Technical Physics 3

2-3-3
A continuation of PHY 2222. Topics include: the structure of matter, heat, the laws of thermodynamics, energy conversion, heat engines, ideal gases, properties of waves, sound, electromagnetic waves, and geometrical optics.
Prerequisites: PHY 2222.

## 2224 Fire Service Physics

2-3-3
A course on physics for students in the Fire Service program.
Topics include: forces and torque, one- and two-dimensional kinematics and dynamics, work, energy, power, machines, fluid mechanics, temperature and thermal energy, heat transfer, gas laws, and laws of thermodynamics.
Prerequisites: DE 0024 or MAT 1161 or appropriate COMPASS mathematics score.

## 2244 Health Physics 1

3-2-4
A physics course for students in the Health and Public Safety
Division. Topics include: work, energy, and machines; pressure, forces, volume, temperature, and density; ideal gases; fundamentals of basic electricity including current, resistance, voltage, power, and safety.
Prerequisites: MAT 1105.
2245 Health Physics 2
3-2-4
A second course on physics for specific Health and Public Safety programs. Topics include: describing motion and its causes; work, energy, and machines; thermometers; heat and its transfer; evaporation; the physics of hearing; and the physics of vision and light. Prerequisites: DE 0025 or MAT 1105.

## 2270 Introduction to Physics

2-3-3
An introductory course for students with limited exposure to physics. Topics include: fundamentals of physics, laboratory procedures, the controlled experiment, methods of measurement, data collection and analysis techniques, and interpreting experimental results.
Prerequisites: MAT 1162 or appropriate COMPASS mathematics score.

# PHY - Physics <br> POL - Political Science PSC - Physical Science 

2291 Physics 1 (Algebra and Trigonometry Based) 3-2-4
The first course in a four-course sequence for programs that require an algebra and trigonometry based approach. Topics include: measurement, vector quantities, motion on an incline, trajectory motion, acceleration and gravity, Newton's Laws of motion, friction forces, field forces, work, energy, power, and circular motion. Prerequisites: PHY 2270 or MAT 1171 or appropriate COMPASS score.

2292 Physics 2 (Algebra and Trigonometry Based) 3-2-4
The second course in a four-course sequence designed for programs that require an algebra and trigonometry based approach. Topics include: vector quantities; force addition by scaling and component methods; concurrent and non-concurrent equilibrium; impulse, momentum, and collisions; rotational motion; mechanical and thermal energy; specific heat capacity; latent heat; heat transfer methods; and ideal gas laws.
Prerequisites: PHY 2291 or PHY 2295.

## 2293 Physics 3 (Algebra and Trigonometry Based) 3-2-4

The third course in a four-course sequence for programs that require an algebra and trigonometry based approach. Topics include: electromagnetic radiation, nature of light, refraction, geometrical optics, physical optics, spectra, color, photometry, and the basic forces in physics.
Prerequisites: PHY 2291.

## 2294 Modern Physics

A calculus-based course on modern physics that follows either PHY 2293 or PHY 2297. Topics include: special theory of relativity and its modifications of classical physics, photoelectric and Compton effects, quantum mechanics, cosmology, and basic principles of atomic and nuclear physics.
Prerequisites: PHY 2293 or PHY 2297, MAT 1193 or MAT 1154.

## 2295 Physics 1 (Calculus-Based)

4-2-5
A course on calculus-based college physics. Topics include: measurement, vector quantities, one- and two-dimensional kinematics and dynamics using Newton's Laws, circular motion, work, energy, power, impulse, momentum, and the conservation laws. Prerequisites: None.
Corequisites: MAT 1154 or MAT 1193.

## 2296 Physics 2 (Calculus-Based)

4-2-5
A continuation of PHY 2295. Topics include: rotational kinematics and dynamics, oscillatory motion, gravity, fluid mechanics, waves, temperature and thermal energy, heat transfer, the gas laws, and the laws of thermodynamics.
Prerequisites: PHY 2295.

## 2297 Physics 3 (Calculus Based)

A continuation of PHY 2296. Topics include: Electric fields and potentials including Gauss' Law, resistance,capacitance, inductance, DC and AC circuits including Kirchhoff's Laws, power and energy stored in fields, Ampere's Law, Faraday's Law, electromagnetic waves and radiation, the nature of light, geometrical and physical optics including interference and diffraction, and polarization.
Prerequisites: PHY 2296.

## POL Political Science

1530 Making Your Voice and Vote Count: Democracy in Action 3-0-3
An introduction to the role of citizens in a democracy. Topics include: participation in the electoral process, issues involving local and state government, how voters can make changes in their
community, how to become involved beyond voting. Emphasis placed on practical activities relating to local issues.
Prerequisites: None.
1531 Introduction to American Government 1 3-0-3
A survey of the American political system at the national level. Topics include: the basis of democratic theory and principles, examination of the Constitution, issues of civil liberties, and citizen rights.
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS scores.
1532 Introduction to American Government 2
3-0-3
A survey of the American political system at the national level.
Topics include: structure and function of the legislative, executive, and judicial branches; citizen participation; and interest groups. Prerequisites: DE 0005, DE 0011 or appropriate COMPASS scores.

## 1533 Introduction to Comparative Governments and Political Systems

3-0-3
A survey of political systems and structures. Topics include: the relationship between political ideologies and governments; and comparing international examples of alternative structures of executive leadership, legislatures, bureaucracy, and judicial systems. Prerequisites: POL 1531 or POL 1532.

## PSC Physical Science

2264 Astronomy - The Solar System
3-2-4
A course on the history of astronomy and the instruments astronomers use. Topics include: making observations, planetary evolution, the solar system, and the nature of light. The course includes lectures, demonstrations, and lab experiments. Students need an understanding of algebra.
Prerequisites: DE 0024 or appropriate COMPASS scores.
2265 Astronomy - The Universe
3-2-4
A course on the universe beyond our solar system and the instruments used to observe it. Topics include: stellar evolution, the Sun, the Milky Way, galaxies, and other extragalactic objects. The course includes lectures, demonstrations, and lab experiments. Students need an understanding of algebra.
Prerequisites: DE 0024 or appropriate COMPASS scores.

## 2267 Energy <br> 3-2-4

A course on the different types of energy available throughout history, concentrating on their physics and chemistry. Topics include: the efficiency, environmental impact, and cost associated with using different types of energy. Students need an understanding of algebra.
Prerequisites: DE 0024 or appropriate COMPASS scores.
2269 Hydrology and Meteorology
3-2-4
A course on the hydrology and meteorology of the Earth. Topics include: the evolution of the Earth's oceans and streams, the evolution and physics of the atmosphere, and a study of environmental and climatic changes. Includes lectures, demonstrations, and lab experiments. Students need an understanding of algebra. Prerequisites: DE 0024 or appropriate COMPASS scores.

2277 Geology
3-2-4
A course on the evolution of the Earth from a historical and physical perspective. Topics include: the internal and surface mechanisms shaping the Earth's interior and surface and a study of rocks, minerals, and fossils. Students need an understanding of algebra. Prerequisites: DE 0024 or appropriate COMPASS scores.

## PSC - Physical Science <br> PSET - Electrical Engineering Technology Program <br> PSY - Psychology

2299 Special Studies-Science
Var-Var-Var
A personal academic pursuit related to the student's technical field of study mutually agreed upon by the student and supervising faculty member. The Dean of Humanities and Sciences must approve the plan of study prior to registration.
Prerequisites: None.

## 6699 Technical Laboratory Problems

Var-Var-Var
Special problems, projects, seminars, and individual study assignments pertinent to technical laboratory areas. Arranged with approval of coordinator and Dean of Humanities and Sciences. Prerequisites: None.

## PSET Electrical Engineering Technology Program

7718 Introduction to the National Electric Code (NEC) 1-3-2
An overview of the National Electric Code, National Fire Protection Association Standard 70E. Topics include: purpose, intent, enforcement, and use of the NEC in electrical design, and specification of equipment and hardware used in facility power systems.
Prerequisites: EET 7710, EET 7711.
Corequisites: None.

## 7737 Introduction to Power Systems

An introduction to commercial, industrial, and residential AC power systems. Topics include: power grid overview, generation, transmission, distribution, equipment utilization, potential career opportunities, and issues and challenges facing the power industry today.
Prerequisites: EET 7710, EET 7711.
Corequisites: None.

## 7747 Power Systems Design 1

4-3-5
The first of two courses focusing on the design of branch and feeder circuits in commercial, industrial, and residential facilities utilizing the National Electric Code. Topics include: developing load projections/calculations, sizing conductors, conduits, protective devices, transformers, and switches for single and three phase loads, and equipment selection based on design requirements. Prerequisites: EET 7720, EET 7721, PSET 7771.
Corequisites: None.
7757 Power Systems Design 2 4-3-5
A continuation of PSET 7747, focusing on the design of power systems from the service entrance to the load and topics of concern endemic to power systems analysis. Topics include: short circuit/fault analysis, coordination, lighting protection, emergency power systems, and hazardous locations.
Prerequisites: PSET 7747.
Corequisites: None.

7767 Power System Software Applications
3-3-4
In this project/capstone course, students use power engineering software to design a facility power system and lay out a utility transmission and distribution system to serve multiple loads including short circuit and fault coordination analysis. Prerequisites: PSET 7757.
Corequisites: None.

## 7771 Wiring, Cables, and Connectors

2-3-3
An in-depth examination of wires, cables, and connectors used in commercial, industrial, and residential power systems. Topics include: selecting, sizing, determining insulation type, testing, and maintaining conductors and associated connectors used for power transmission and distribution.
Prerequisites: PSET 7718, PSET 7737.

7790 Power System Career and Assessment Seminar 1-3-2
A course that provides students with an understanding of common licensing requirements, employee test requirements, and continuing education possibilities. Students take sample examinations including Residential/Maintenance Electrician Exam, Journeyman Electrician Exam, Master Electrician Exam, and Power Plant Maintenance and Operation (MOSS/PASS) tests.
Prerequisites: PSET 7757.
Corequisites: None.

## 7915 Electrical Safe Work Practices

0-2-1
An in-depth review of OSHA requirements governing electrical safe work practices at manufacturing and service facilities. Topics include: the requirements outlined in OSHA 29 CFR Part 1910 and NFPA Standard 70E. Students must pass the OSHA 10 certification exam at the conclusion of this course to be eligible for co-op in Power Systems Engineering Technology.
Prerequisites: None.

## PSY Psychology

1502 Human Relations-Applied Psychology
3-0-3
A course on applying psychological principles to every day life.
These applications help students understand themselves better, change their behaviors, and enhance their relationships.
Prerequisites: None.

## 1503 Psychology of Deafness

3-0-3
A course on the psychological issues of hearing impaired persons. Topics include: personality issues, social adjustment issues, and family dynamics.
Prerequisites: None.

## 1505 Introduction to Psychology 1

3-0-3
A study of psychology as the scientific study of behavior and mental processes. Topics include: history, research methods, the biology of behavior, consciousness, sensation/perception, learning, and cognition (memory, thought, and language).
Prerequisites: DE 0005, DE 0011 or appropriate COMPASS scores.
1506 Introduction to Psychology 2
3-0-3
A continuation of PSY 1505. Topics include: personality, psychological disorders, therapies, development, and social psychology. Prerequisites: PSY 1505 or equivalent.

## 1507 Abnormal Psychology

3-0-3
A survey of behavioral, emotional, and mental disorders. Topics include: identification, diagnosis, classification, and treatment utilizing the concepts of the DSM-IV-R; past and present views of abnormal behavior; role of medical/psychiatric community; research; and prevention.
Prerequisites: PSY 1506.
1508 Psychology: Child Development
3-0-3
A course on the child's life beginning with genetic and environmental influences. Topics include: the physical, intellectual, language, social, moral, and abnormal growth of the child. Prerequisites: PSY 1506 or equivalent.

1509 Psychology: Adult Development
3-0-3
A course on the principles and theories governing human growth and development from adolescence through aging. Topics include: a comparison of the major contemporary theories, the identity struggle of adolescence, career selection and development, marriage, parenting, mid-life crises, retirement, and death and dying. Prerequisites: PSY 1506 or equivalent.

# PSY - Psychology QCC - Quality Control Certificate RE - Real Estate 

1510 Psychology: Adolescent Development
A course on the developmental issues of adolescence. Topics include: self concept, sex roles and identity, hazards such as alcohol and drug abuse, relating to parents and peers, achieving independence, value formation, and choosing and preparing for an occupation.
Prerequisites: PSY 1506 or equivalent.

## 1511 Social Psychology

3-0-3
A study of the individual within the social environment. Topics include: understanding the social behavior of individuals in interactions with others, social interaction, social influence, perception, attraction, aggression, altruism, and influence.
Prerequisites: PSY 1506.

## QCC Quality Control Certificate

## 6270 Introduction to Statistical Process Control

A comprehensive introduction to statistical quality control/process control. Topics include: definitions and philosophies of Deming, ASQ, and others; a review of basic statistics; and SPC techniques/charts including Ishikawa, Pareto, histograms, run charts, and control charts.
Prerequisites: MAT 1179.
6272 Introduction to Design of Experiments $\quad$ 3-2-4 A statistically based course emphasizing Taguchi methods. Topics include: one- and two-sample procedures, analysis of variance, interactions, receptions, randomization, orthogonal arrays, linear graphs, signal-to-noise ratios and computer/graphical techniques. Prerequisites: MAT 1179.

## 6273 Advanced Design of Experiments

A continuation of QC 6272. Topics include: correlation, simple linear regression, and multiple regression emphasizing selecting and fitting models to data using diagnostic tools. Students develop response surface methods, contour plotting, and process optimization using graphical and analytical (computer) procedures.
Prerequisites: QCC 6272.

## 6274 Introduction to Reliability

3-2-4
A statistically based approach to reliability emphasizing practical applications. Topics include: reliability definitions, exponential and Weibull models, plotting techniques, confidence intervals, stressstrength, safety factors, FMEA, repairable vs. non-repairable parts and systems, and human factors. Course content is oriented to ASQ Reliability Engineer certification standards.
Prerequisites: MAT 1179.

## 6275 Introduction to ISO Quality Systems

3-0-3
A course on the background and development of the ISO 9000 Series Standards. Topics include: requirements and guidelines, establishing a quality management system, documenting and auditing a quality system, comparing ISO 9000 to other continuous improvement systems, costs of certifcation, and the future of ISO 9000 in the global marketplace.
Prerequisites: None.

## 6276 Implementing ISO Quality Systems

3-0-3
A course on implementation of a quality system. Topics include: preparing for certification, forming a steering committee, setting a schedule, employee awareness training, the quality system manual, work instructions, and training internal auditors.
Prerequisites: QCC 6275.
6277 Statistics for Quality 1
3-2-4
A course on Pareto and Ishikawa charts, histograms, boxplots,
scatter plots (correlation and regression), normal distribution, SPC control charts, quality costing, and acceptance sampling. Students develop a working knowledge of these skills although a mastery of statistical methods is not required.
Prerequisites: MAT 1124 or MAT 1151.

## 6278 Statistics for Quality 2

2-2-3
A continuation of QC 6277. Topics include: hypothesis testing, confidence and prediction intervals, ANOVA, experimental design, Taguchi methods, response surfaces, reliability, and FMEA. Students develop a working knowledge of these skills although a mastery of statistical methods is not required.
Prerequisites: QCC 6277.
6279 Tools \& Techniques for Improving Service Quality 3-0-3 A course on assessing service quality gaps. Topics include: determining service quality requirements; assessing service perceptions; measurement tools in service; identifying the cause of service quality gaps; determining the cause of service quality gaps; tools for designing, analyzing, and synthesizing data; and reporting service quality measurements.
Prerequisites: None.

## 6299 QC/QA Project

Individual study and special projects pertaining to the student's area of concentration. This course is open to students wishing advanced standing or independent study and requires advisor approval.
Prerequisites: None.

## RE Real Estate

2931 Introduction to Property Management 3-0-3
A course on the property management profession and property types. Topics include: economics, planning, owner relations, marketing, lease administration and negotiations, tenant relations, maintenance and construction management, office procedures, life safety, and environment management. Practical guidelines for managing residential real estate at the on-site level will be presented including personnel and resident policies, accounting, budgeting, legal aspects and leasing.
Prerequisites: None.
2932 Residential Property Management
3-0-3
Students learn practical methods for successful management of property. Topics include: planning, systems and philosophies, personnel and resident policies, accounting and budgeting, legal aspects, insurance, marketing, leasing, sales, maintenance and energy conservation.
Prerequisites: None.
2933 Executive Level Property Management
A course on techniques for successful management of property at the executive level. Topics include: objectives of ownership; use of data and statistics; analysis of regions, neighborhoods, and markets; cash flow projections and financial analysis; and developing and managing apartments, offices, shopping centers, condominiums, and cooperatives. Using the case study approach, students create a management plan for a specific property in the area.
Prerequisites: None.
2951 Real Estate Principles \& Practices 4-0-4
An introduction to real estate economics. Topics include: principles of contracts, civil rights, ethics, financing, brokerage, appraisal, and Ohio practices. This course is required by the State of Ohio prior to taking the sales license exam.
Prerequisites: None.

## RE - Real Estate <br> RT - Respiratory Care

## 2953 Real Estate Law

4-0-4
A course on law of agency as applied to real estate. Topics include: law of fixtures; estates including leases, conveyancing of real estate, the sales contract, the mortgage, deeds, recording, real estate brokers and managers; license laws of Ohio; civil rights; housing discrimination; desegregation; zoning; cooperatives; and condominiums. Required by the State of Ohio prior to taking the sales license exam.
Prerequisites: None.

## 2954 Real Estate Finance and Appraisal

4-0-4
A course on methodology of financing and appraising residential property. Topics include: types of Ohio lenders; types of conventional and government financing (FHA/VA); the loan process including qualifying the buyer and property, loan application, documentation, underwriting, closing, servicing, and possible foreclosure; and applicable state and federal regulations. Appraisal topics include: theory of appraisal techniques; and basic approaches of appraising: market comparison, cost of replacement, and income capitalization. Required by the State of Ohio prior to taking the sales license exam.
Prerequisites: None.

## 2956 Appraising Income Properties

3-0-3
Topics include: comprehensive analysis of theory and practical application of preparing an appraisal on investment property, appraisal techniques unique in the area of income producing properties. Students complete a term case study project that provides practical experience in using the income approach. Prerequisites: RE 2954.

## 2958 Real Estate Investing

3-0-3
A course on techniques and strategies for profiting from investments in residential, office, warehouse, and industrial real estate.
Prerequisites: None.

## 2959 Advanced Income and Appraisal Standards

3-0-3
A course on mathematical problems in analyzing data to arrive at value estimates for income-producing properties. Course outlines the uniform standards of professional practices of the Appraisal Standards Board of the Appraisal Foundation. This course is required prior to taking the State of Ohio Residential and General Appraisal Certification exam.
Prerequisites: RE 2956.

## 9229 Cooperative Education Real Estate/Property Management

1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the RE program, 2.0 minimum GPA.

## 9249 Cooperative Education

 Real Estate/Property Management - Parallel $\mathbf{1 - 2 0 - 1}$Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to the RE program, 2.0 minimum GPA.

## RT Respiratory Care

4701 Respiratory Care Science 1
3-2-4
Topics include: physics; concepts of pressure, flow, and gas laws
as they relate to the field of respiratory care; patient assessment; an introduction to common pulmonary diseases; and procedures, equipment, and assessment relating to oxygen therapy and humidity therapy.
Prerequisites: PHY 2244, BIO 4014, MCH 4805; MAT 1151 or MAT 1105, (minimum grade of C for all), 2.5 minimum GPA Corequisites: RT 4720.

4702 Respiratory Care Science 2
3-3-4
A continuation of RT 4701. Topics include: respiratory care procedures; assessment; use of equipment involved in aerosol therapy, hyperventilation therapy, chest physiotherapy, noninvasive monitoring, and other procedures related to routine care; and pharmacology applicable to the respiratory care patient. Prerequisites: RT 4701, RT 4720, BIO 4015 (minimum grade of C for all).
Corequisites: RT 4711.

4703 Respiratory Care Science 3
3-2-4
A continuation of RT 4702. Topics include: X-rays, infection control, positive pressure, non-invasive devices, airway management, manual resuscitators, oxygen analyzers, and hyperbaric oxygenation.
Prerequisites: RT 4702, RT 4711, BIO 4016, BIO 4009 (minimum grade of $C$ for all).
Corequisites: RT 4712, RT 4718.
4704 Respiratory Care Science 4
4-3-5
A continuation of RT 4703. Topics include: respiratory care of the critically ill patient including the assessment, equipment, monitoring, and care of the mechanically ventilated patient. Prerequisites: RT 4703, RT 4712, RT 4718 (minimum grade of C for all).
Corequisites: RT 4713, RT 4719.

## 4705 Respiratory Care Science 5

2-2-3
An in-depth study of neonatal development and neonatal and pediatric diseases and their treatments. Includes laboratory instruction on using pediatric/neonatal respiratory equipment and ventilator. Prerequisites: RT 4704, RT 4713, RT 4719 (minimum grade of C for all).

4706 Respiratory Care Science 6
5-0-5
A continuation of RT 4705. Topics include: hemodynamic monitoring and cardiopulmonary pharmacology of the critically ill patient, care of the trauma patient, and a review of principles of cardiopulmonary physiology.
Prerequisites: RT 4714, RT 4705 (minimum grade of C for both).

## 4707 Respiratory Care Science 7

3-0-3
A continuation of RT 4706. In-depth study of specialized areas of respiratory care including: pulmonary rehabilitation, pulmonary function testing, and sleep studies. These areas are subject to change each year to correspond to the changing job description of the Respiratory Therapist.
Prerequisites: RT 4706, RT 4714 (minimum grade of C for both). Corequisites: RT 4715.

4711 Respiratory Care Clinical Practice 1
0-9-1
An introduction to respiratory care in the hospital environment. Topics include: practical application of oxygen delivery systems, aerosol therapy, incentive spirometry, patient positioning, and patient assessment.
Prerequisites: RT 4701, RT 4720 (grade of C or higher for both) Corequisites: RT 4702.

# RT - Respiratory Care <br> SCM - Supply Chain Management 

## 4712 Respiratory Care Clinical Practice 2

 0-9-1Topics include: practical application of IPPB, humidity, aerosol therapy, chest physiotherapy, and incentive spirometry.
Prerequisites: RT 4702, RT 4711, BIO 4016, BIO 4009 (minimum grade of $C$ for all).
Corequisites: RT 4703, RT 4718.
4713 Respiratory Care Clinical Practice 3
0-17-3
A continuation of RT 4712. Topics include: airway management, sterilizing equipment, introduction to ventilator care, and the operating room.
Prerequisites: RT 4703, RT 4712, RT 4718 (minimum grade of C for all).
Corequisites: RT 4704, RT 4719.

## 4714 Respiratory Care Clinical Practice 4 <br> 0-22-4

A continuation of RT 4713. Topics include: all phases of respiratory care emphasizing care of patients requiring mechanical ventilation. Includes special rotations in pulmonary functions, equipment, and pediatrics.
Prerequisites: RT 4713, RT 4719, RT 4704 (minimum grade of C for all).

## 4715 Respiratory Care Clinical Practice 5

0-18-3
A continuation of RT 4714. Topics include: applying advanced respiratory care techniques emphasizing care of patients in the critical care setting. Includes specialized areas of practice and use of computerized clinical simulations.
Prerequisites: RT 4706, RT 4714 (minimum grade of C for both). Corequisites: RT 4707.

4716 Respiratory Care Clinical Practice 6
0-20-3
A continuation of RT 4715.
Prerequisites: RT 4707 (minimum grade C).

## 4718 Pulmonary Diseases 1

An in-depth study of pulmonary disease and pulmonary function. Topics include: the pathophysiology, diagnosis, and treatment of common respiratory diseases and the pulmonary function tests and equipment used to diagnose these diseases.
Prerequisites: RT 4702, RT 4711, BIO 4016 (minimum grade of C for all).
Corequisites: RT 4703, RT 4712.

## 4719 Pulmonary Diseases 2

3-0-3
A continuation of RT 4718. Topics include: diseases of the heart, trauma, and neurological conditions affecting the pulmonary system. Prerequisites: RT 4718, RT 4703, RT 4712 (minimum grade of C for all).
Corequisites: RT 4704, RT 4713.
4720 Cardiopulmonary Anatomy \& Physiology 4-2-5
A course on detailed anatomy and physiology of the respiratory and circulatory systems. Emphasizes topics relevant to respiratory therapy: ventilation, diffusion, oxygen and carbon dioxide transport, red cell physiology, and acid-base balance.
Prerequisites: BIO 4014, admitted to the Respiratory Care program, 2.5 minimum GPA.

Corequisites: RT 4701.

## 4723 Respiratory Care Seminar

2-2-3
A capstone course for Respiratory Care students. Topics include: a discussion of special issues pertaining to the field of respiratory care and preparation for the national credentialing exams.
Prerequisites: RT 4707 (minimum grade C).
Corequisites: RT 4716.

9376 Parallel Cooperative Education -
Respiratory Care
1-20-1
Respiratory Care students participate in a part-time paid field learning experience while completing other program requirements. This experience provides an opportunity to apply knowledge and skills acquired in classes. Students must adhere to the Health and Public Safety Division Student Handbook and program requirements.
Prerequisites: Admitted to the RC program, coordinator consent, 2.0 minimum GPA.

9386 Internship - Respiratory Care
1-20-1
Students participate in an unpaid field learning experience 16 to 20
hours per week. Students must adhere to the Health and Public
Safety Division Student Handbook and program requirements.
Prerequisites: Admitted to the RC program, coordinator consent, 2.0 minimum GPA.

## SCM Supply Chain Management

## 1817 Purchasing 1

A course on the purchasing process. Topics include: supply chain organization, purchasing policy and procedures, insourcing/ outsourcing, supplier evaluation and selection, and supplier quality management.
Prerequisites: None.

## 1818 Purchasing 2

3-0-3
A continuation of SCM 1817. Topics include: strategic cost management, negotiations, managing contracts, purchasing law and ethics, inventory systems, transportation services, and electronic commerce.
Prerequisites: SCM 1817.
1877 Supply Chain Management
3-0-3
A course on maximizing return on investment by managing raw materials and finished inventory. Topics include: the interrelationship of obtaining materials, working on and storing product, order fulfillment, and customer delivery in both traditional and e-commerce environments.
Prerequisites: None.
2937 Fundamentals of Resource Planning
4-0-4
An introductory course on the principles of effective resource planning. Topics include: the concepts of planning of resources at each level, from strategic to tactical. Students work together to solve problems, develop plans, build teams, and present solutions. Prerequisites: SCM 1877.

## 2938 Fundamentals of Inventory Control

4-0-4
A course on identifying and applying the basic principles of inventory management. Topics include: essential vocabulary and basic methods of planning and controlling inventory in manufacturing, institutional, distribution, and retail environments.
Prerequisites: None.

## 2939 Fundamentals of Manufacturing Control

A course on executing production plans and master production schedules, reactions to capacity constraints, and maintaining individual order control. Topics include: dealing with priority and capacity management by using material requirements planning, capacity management, capacity requirements planning, production activity control, and Just-in-Time.
Prerequisites: SCM 2938.
2940 Operations Management
4-0-4
A course on designing and operating systems to produce goods
and services. Topics include: relationships within the company environment, particularly with marketing and product design; facilities planning; total quality management; cost analysis; project planning; and operations resource management.
Prerequisites: None.

## SOC Sociology

## 1270 Introduction to Social Work

An introduction to the social welfare institution and the field of social work. Topics include: a core of concepts, skills, and activities to prepare for the profession. Students obtain a beginning level of knowledge and value orientation to pursue a career in social work.
Prerequisites: SOC 1521.

## 1271 Social Welfare and Policies

3-0-3
An introduction to the historical development and organization of social welfare policy including analyzing and evaluating policy effectiveness and impact on populations, particularly minorities. Prerequisites: SOC 1270.

## 1272 Social Problems

3-0-3
An overview and systematic study of major social problems in modern society using various sociological methods and theories. Topics include: ageism, poverty, urban life, racism, violence, and crime.
Prerequisites: SOC 1521.
1273 Drugs in Society
3-0-3
An introduction to issues of use and abuse of drugs and alcohol in today's society. Topics include: prevention, early intervention, and treatment programs.
Prerequisites: None.

## 1520 Orientation to Deafness

3-0-3
A course on the culture of the American Deaf community. Topics include: the education and legal status of the community, and the philosophical and political forces affecting the hearing impaired. Prerequisites: None.

1521 Introduction to Sociology 1
3-0-3
A course on sociology as a science occupied with classifying and defining group behavior including the basic institutions necessary to the processes of socialization and acculturation. Prerequisites: DE 0005 and DE 0011 or appropriate COMPASS scores.

1523 Introduction to Sociology 2
3-0-3
A course on the five major social institutions in society: the family, religion, education, the economy, and government.
Prerequisites: SOC 1521.

## 1524 Stress Management

3-0-3
A course on theory and coping techniques for use in dealing with physical, social, and psychological stressors. Topics include: nutrition, time management, and assertiveness. Students practice relaxation techniques in class.
Prerequisites: None.
1525 Changing Roles for Men and Women
An interdisciplinary course on the processes through which sex roles develop. Topics include: the ways in which sex roles affect individuals and society, and analysis of changing sex role patterns in the U.S. and elsewhere.
Prerequisites: Three hours of psychology or sociology.

1526 Sociology: Marriage and The Family
3-0-3
A course on the social institutions of marriage and the family.
Topics include: the historical perspective of marriage, male and female roles, society's impact on marital roles, and the impact of the family on the individual.
Prerequisites: SOC 1521.

## 1528 The African-American Family

3-0-3
A course on issues confronting contemporary African-American families. Topics include: the realities, myths, structures, and dynamics that surround and affect today's African-American family; historical background; male/female and parent/child relationships; social, economic, health, and lifestyle issues; public policy issues; and the role of the church.
Prerequisites: ENG 1001.

## 1530 Race, Ethnicity, and Minorities

3-0-3
A course on the social construction of subordinate/dominant
relationships based upon race and ethnicity. Topics include: the effects of prejudice, discrimination, and cultural insensitivity on educational, political, and economic social structures. Prerequisites: SOC 1523.

## SPE Speech

1020 Public Speaking
3-0-3
A course on the preparation and effective delivery of various types of speeches. Topics include: improved listening techniques, audience participation, and evaluation.
Prerequisites: ENG 1001.

## 1021 Advanced Public Speaking

3-0-3
A continuation of SPE 1020, emphasizing skills needed to assess, prepare, and deliver effective public speeches. Topics include: audience analysis, manuscript research and development, and specialized speaking environments such as debates and group presentations.
Prerequisites: SPE 1020.
1023 Interpersonal Communication
3-0-3
Study and practical application of principles of communication in face-to-face human interactions. Topics include: self-awareness, perception, conflict, listening, interviewing, verbal and nonverbal codes, cultural expectations and their effects on communication in family, classroom, work and intercultural settings.
Prerequisites: None.

## 1024 Group Dynamics \& Problem Solving

3-0-3
A course on understanding peoples' roles as communicators, improving small group communication skills, developing problemsolving strategies as group members and applying theories to work (i.e. Quality circles), and personal relationships.

Prerequisites: None.

## 1027 Team Building and Group Facilitation

3-0-3
A course on team development and function in a work setting.
Topics include: group presentations, team building, group development, and team/meeting facilitation. Students work in problem-solving teams and present team project results. Successful completion of SPE 1024 or experience working with groups recommended.
Prerequisites: None.

## SPN Spanish

1076 Spanish Conversation and Composition
3-0-3
A course emphasizing conversational and written Spanish. Students

# SPN - Spanish <br> SSC - Social Sciences <br> SSM - Safety and Security Management 

gain Spanish proficiency through interviews, discussion of articles, role-plays, communicative games, and watching and discussing Spanish TV.
Prerequisites: SPN 1081 or spoken proficiency.
1077 Spanish 1 for Business and Finance 4-0-4
Students learn and practice vocabulary for business, finance, and business travel.
Prerequisites: None.

## 1078 Spanish 2 for Business and Finance

A continuation of SPN 1077. Students learn and practice vocabulary for business, finance, and business travel.
Prerequisites: SPN 1077.

## 1079 Spanish 3 for Business and Finance

A continuation of SPN 1078. Students learn and practice vocabulary for business, finance, and business travel.
Prerequisites: SPN 1078.

## 1080 Elementary Spanish 1 <br> 4-0-4

An introduction to the Spanish language, providing a foundation for understanding, speaking, reading, and writing Spanish. Topics include: fundamentals of Spanish intonation, grammar, and syntax. Laboratory work may be required.
Prerequisites: None.
1081 Elementary Spanish 2
4-0-4
A continuation of SPN 1080, providing a foundation for understanding, speaking, reading, and writing Spanish. Topics include: fundamentals of Spanish intonation, grammar, and syntax; and advanced readings. Laboratory work may be required. Prerequisites: SPN 1080 or one year high school Spanish or equivalent.

## 1082 Elementary Spanish 3 <br> 4-0-4

A continuation of SPN 1081, providing a foundation for understanding, speaking, reading, and writing Spanish. Topics include: fundamentals of Spanish intonation, more complex grammar, syntax, more advanced readings, and basic composition. Laboratory work may be required.
Prerequisites: SPN 1081 or two years high school Spanish or equivalent.

## 1083 Intermediate Spanish 1

4-0-4
Review and extension of basic principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and short literary pieces. Laboratory work may be required.
Prerequisites: SPN 1082 or three years high school Spanish or equivalent.

## 1084 Intermediate Spanish 2

4-0-4
A continuation of SPN 1083 providing review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: SPN 1083 or equivalent.
1085 Intermediate Spanish 3
4-0-4
A continuation of SPN 1074 providing review and extension of principles of grammar and syntax through composition and conversation, stressing fluency. Topics include: more advanced reading, composition, and longer literary pieces. Laboratory work may be required.
Prerequisites: SPN 1084 or equivalent.

1090 Spanish for the Professions 3-0-3
A course that prepares non-Spanish speaking students to use Spanish language commands and phrases related to their specific careers and to understand cross-cultural issues related to interacting with native Spanish speakers. No prior knowledge of Spanish is necessary.
Prerequisites: None.
1098 Special Topics in Spanish
Var-Var-Var
A course involving study and discussion of selected topics in Spanish. Content and emphasis may vary from term to term. Prerequisites: None.

## SSC Social Sciences

1598 Topics in Social Sciences
Var-Var-Var
A study of selected topics in the social sciences, which may be drawn from one field within the social sciences or may be interdisciplinary. Content and emphasis vary from term to term. Prerequisites: None.

## SSM Safety and Security Management

1000 Disaster Preparedness for
Health and Public Safety Workers
1-0-1
An introduction to disaster preparedness in the health and public safety workplace, as required by accrediting and licensing agencies. Topics include: types of disasters, emergency management preparedness, risks and hazards, role delineation, emergency response planning, communication, drills, and preparation in the workplace.
Prerequisites: DE 0011, DE 0005 or appropriate COMPASS score.

## 4001 Professionalism in

Safety and Security Management
3-0-3
An introduction to concepts related to professionalism and security plan development in safety and security. Topics include: accountability, responsibility, work ethic, interpersonal skills, assessment of security strengths and weaknesses, and preparing a security plan. Prerequisites: None.

4002 Legal Issues in Safety and Security Management 4-0-4
An introduction to legal issues in safety and security. Topics include: history of law in safety and security, regulation, compliance, Stafford Disaster Relief and Emergency Act, Emergency Management Assistance Compact, Grants Management Common Rule, and the Patriot Act.
Prerequisites: None.
4003 Introduction to Homeland Security Management 3-0-3 An introduction to the history of homeland defense. Topics include: civil defense, emergency preparedness, and traditional intelligence studies.
Prerequisites: None.
4004 Principles of Safety Management $\quad$ 4-0-4
An introduction to the field of safety management, emphasizing information and skills common to multiple fields and venues. Topics include: chemical safety information, Material Safety Data Sheets (MSDS), NFPA 704 Marking System, risk assessment, job hazard analysis, and project safety plans.
Prerequisites: SSM 4001 (minimum grade C).
4005 Emergency Preparation and Response
An introduction to the roles of public and private sector organizations in emergency preparedness and response. Topics include: National Incident Management System (NIMS), FEMA,

National Response Plan, right-to-know regulations, reporting, and emergency response plans.
Prerequisites: SSM 4001 (minimum grade C).
4120 On-Scene Incident Management 3-0-3
At the completion of this course, the student will be eligible for certification in incident management. Topics include: FEMAcertified incident command, Unified Command and Area Command, and incident evaluations.
Prerequisites: None.

## 4121 Principles of Security Management 1

An introduction to the principles of security management. Topics include: communication, responsibilities, organizational structure and chain of command, projecting a professional image, IT security, and the protection of assets.
Prerequisites: None.
4122 Principles of Security Management 2
3-0-3
A continuation of SSM 4122. Topics include: threat mitigation, closed circuit television surveillance techniques, risk assessment, rules of evidence, investigative procedure, and guidelines for testifying in court.
Prerequisites: SSM 4121 (minimum grade C).

## 4201 Basic Health Care Security

4-0-4
Students prepare to take the International Association for Healthcare Security and Safety basic certification exam for the Healthcare Security Officer. Topics include: security as a service organization, crisis intervention, health care vulnerability, and disaster control and response in a health care setting. Prerequisites: SSM 4001 (minimum grade C).

## 4202 Advanced Health Care Security

Advanced training in health care security; prepares students to take the International Association of Healthcare Security and Safety exam for Advanced Training Certification. Topics include: crime prevention, investigative techniques, patient risk groups, and security in sensitive areas.
Prerequisites: SSM 4201 (minimum grade C).
4203 Health Care Security and Safety
3-0-3
A course on safety aspects of the health care environment. Topics include: health care safety programs, accidents and injuries, fire safety, and hazardous materials/waste management. Students prepare to take the IAHSS credentialing examination for Health and Safety Security Officers.
Prerequisites: SSM 4201 (minimum grade C).
4204 Health Care Security Supervision
Topics include: contemporary issues in health care, employee relations and appraisals, civil liability, budgeting, and professionalism. Students prepare to take the IAHSS Supervisor certification examination.
Prerequisites: SSM 4202 (minimum grade C).

## 4301 Fraud Examination in

 Safety and Security ManagementTopics include: the fraud triangle, white-collar crime, asset misappropriations, skimming, cash larceny, check tampering, corruption, bribery, and conflicts of interest.
Prerequisites: SSM 4122 (minimum grade C).
4303 Banking and Corporate Security
An introduction to the basics of bank and corporate security. Topics include: alarm system design, access control, system
integration, safes and vaults, and physical security tactics. Prerequisites: None.

## 4304 Principles of Compliance and Ethics

3-0-3
Topics include: the Sarbanes Oxley Act of 2002, the Health Information Portability Assurance Act (HIPAA), federal sentencing guidelines, and codes of ethics.
Prerequisites: SSM 4122 (minimum grade C).
4401 Proprietary Information Security
3-0-3
An introduction to concepts used in protecting private information within businesses, agencies, and corporations. Topics include: information systems, security techniques, and methods and tools used to secure information.
Prerequisites: SSM 4004, SSM 4121 (minimum grade C).
4402 Asset Protection and Loss
3-0-3
An introduction to the concepts of inventory shrinkage and basic loss prevention. Topics include: auditing, exception reporting, awareness training, investigation, business controls, and federal and state laws governing retail loss prevention activity. Prerequisites: None.

4403 Personnel Security
3-0-3
Topics include: communication, management, organizational structure; security techniques; security controls; and local, state, and federal laws associated with personnel security.
Prerequisites: SSM 4121 (minimum grade C).

## 4404 Physical Plant Security Operations

3-0-3
Topics include: security and systems design in the physical plant; creating a security plan; physical plant system integration; reporting; and local, state, and federal laws governing security operations. Prerequisites: SSM 4402, SSM 4122 (minimum grade C).

9100 Capstone Experience in SSM
3-0-3
Students work in teams, applying their skills to a real-life problem in a business environment. Activities include: critical analysis of problems; preparation of a safety or security plan; identificiation of access and vulnerability points within the systems; budget development; acquisition of materials, supplies, and resources; and execution of the plan.
Prerequisites: Instructor consent.
9200 Cooperative Education in SSM
1-20-1
Students participate in a paid field learning experience directly related to their academic discipline and SSM major. The course is repeatable for credit.
Prerequisites: Instructor consent.

## 9201 Cooperative Education

 in Safety and Security Management1-40-2
Students participate in a paid field learning experience directly related to their academic discipline and SSM major. The course is repeatable for credit.
Prerequisites: Instructor consent.
9210 Internship in Safety and Security Management 1-20-1 Students participate in an unpaid field learning experience directly related to their major in SSM. The course is repeatable for credit. Prerequisites: Instructor consent.

## 9211 Internship in

Safety and Security Management-Full Timerrerer $\quad \mathbf{1 - 4 0 - 2}$
Students participate in a full time unpaid field learning experience directly related to their major in SSM. The course is repeatable for credit.
Prerequisites: Instructor consent.

## ST Surgical Technology

## 4505 Introduction to Surgery 1

5-0-5
An introduction to the surgical technology profession. Topics include: hospital and operating room environment; care of surgical patients; health and wellness; alternative modalities; death and dying; infection control; reprocessing of patient care items; asepsis and sterile technique; and legal, moral, and ethical issues.
Prerequisites: Admitted to the technical courses of the Surgical Technology program.

4506 Introduction to Surgery 2 5-0-5
A continuation of ST 4505. Topics include: special equipment used in the operating room such as robotics, lasers, endoscopes, sponges, needles, and surgical instruments; general and regional anesthesia; and wound healing, sutures, and surgical staplers. Prerequisites: ST 4505 (minimum grade C).

## 4531 General Surgery 1

An introduction to general surgery operative procedures. Topics include: upper gastrointestinal, laparotomy, and hernia procedures of the abdominal region; steps of the procedures; hemostasis; operative drains; specimens; layers of the abdominal wall; and abdominal incisions.
Prerequisites: ST 4506 (minimum grade C).

## 4532 General Surgery 2

A continuation of ST 4531. Topics include: lower gastrointestinal procedures, breast surgery, gynecological operative procedures, obstetrical procedures, and plastic/reconstructive surgery. Prerequisites: ST 4531 (minimum grade C).

## 4533 Surgical Specialties 1

5-0-5
A course on selected specialty surgical procedures. Topics include: introduction to ophthalmic, genitourinary, and orthopedic surgery. Prerequisites: ST 4532 (minimum grade C).

## 4534 Surgical Specialties 2

A continuation of ST 4533. Topics include: introduction to neurosurgery procedures; pediatric procedures; head and neck procedures; and ear, nose, and throat surgery.
Prerequisites: ST 4533 (minimum grade C).
4535 Surgical Specialties 3
5-0-5
A continuation of ST 4534. Topics include: introduction to oral surgery (including maxillofacial operative procedures), perivascular, thoracic, cardiac, and transplant surgery. Prerequisites: ST 4534 (minimum grade C).

## 4538 Surgical Technology Seminar

A comprehensive review of surgical technology.
Prerequisites: ST 4534 (minimum grade C).

## 4541 ST Surgery Lab

A lab experience in which students integrate theory with skills in the operating room environment. Topics include: patient transportation and transfer, attachment of surgical bed accessories, patient positioning, operation of electrosurgery and suction, and dispensing supplies to the sterile field.
Prerequisites: ST 4505 (minimium grade C).

## 4542 ST Clinical \& Lab Integration 1

1-6-3
A course consisting of clinical and lab components, including a weekly seminar. Clinical topics include: performing beginninglevel circulating skills on a surgical patient. On-campus lab topics include: skin preparation, urinary catherization, surgical scrub, gowning, and gloving skills.
Prerequisites: ST 4506, ST 4541 (minimium grade C for both).

4543 ST Clinical \& Lab Intregration 2
0-7-3
A course consisting of clinical and lab components. Clinical topics include: performing beginning level scrub skills learned in ST 4542. On-campus lab topics include: development of additional scrub skills to progress students into the scrub role.
Prerequisites: ST 4542 (minimum grade C).
4544 Introduction to Clinical Practice
0-6-2
Students perform all previously learned scrub skills during assigned operative procedures at an affiliated hospital and practice instrumentation skills required for each step of the procedure. Employability skills of students will be evaluated.
Prerequisites: ST 4543 (minimum grade C).

## 4551 ST Clinical Practice 1

0-30-5
Practical application of surgical skills at an assigned affiliate hospital. Students demonstrate basic competency in scrub skills relating to general and gynecological operative procedures. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: BIO 4016, ST 4544 (minimium grade C for both).

## 4552 ST Clinical Practice 2

0-25-5
A continuation of ST 4551, emphasizing specialty operative procedures. Students rotate, as needed, to another affiliate hospital for OB and pediatric experience. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: ST 4551, ST 4534 (minimium grade C for both).

## 4553 ST Clinical Practice 3

0-25-5
A continuation of ST 4552. Students must attend a one-hour weekly seminar on campus relating to the field experience. For satisfactory course completion, students must pass a mandatory program exit exam.
Prerequisites: ST 4552, ST 4535 (minimium grade C for both).
4565 RN First Assisting
9-0-9
A course that prepares the registered nurse to assume the expanded role of the RN First Assistant. Topics include: the preoperative, intraoperative and postoperative role of the RN First Assistant. The course is accepted by the Certification Board Perioperative Nursing (CBPN).
Prerequisites: RN, two years experience in perioperative nursing, CNOR or eligible.

4566 RN First Assisting Clinical 0-21-3
A self-directed, individualized, supervised clinical practice.
Students demonstrate manual and behavioral skills under the preceptorship of a surgeon at a student-selected clinical site. Prerequisites: ST 4565 (minimum grade C).

4567 Certified Surgical Technologist First Assisting 9-0-9
A course on the basic knowledge and skills required to assist surgeons intraoperatively. Topics include: asepsis, infection control, patient safety, surgical anatomy and procedures, the role of the first assistant, and intraoperative functions.
Prerequisites: ST Certification.
4580 Central Service Technology 1
5-0-5
A course on technical functions of Central Service related to providing quality patient care items. Topics include: packaging materials; methods of sterilization; preparation of sterile solutions; quality assurance; and care, handling, and processing of surgical instruments and supplies.
Prerequisites: MCH 4806, ST 4590 (minimium grade C for both). Corequisites: ST 4585.

ST - Surgical Technology<br>TBE - HAZMAT, Rescue, and Safety

## 4581 Central Service Technology 2 <br> 5-0-5

A continuation of ST 4580. Topics include: total quality management, risk management, case cart development, regulatory agencies, material management concepts, information technology, human relations, and trends in Central Service.
Prerequisites: ST 4580 (minimum grade C).
Corequisites: ST 4586.
4584 Introduction to CS Clinical Practice
1-10-2
An introduction to the Central Service environment at an affiliate hospital. Students integrate technical skills with didactic concepts. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: None.
Corequisites: ST 4590.
4585 Central Service Clinical Practice 1
1-15-3
Students rotate through the functional areas of a Central Service department and gain additional technical skills with a focus on quality patient services. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: ST 4584 (minimum grade C).
4586 Central Service Clinical Practice 2
1-15-3
A continuation of ST 4585. Students continue to perform highly technical functions in each area of a Central Service department. Students must attend a one-hour weekly seminar on campus relating to the field experience.
Prerequisites: ST 4585 (minimum grade C).
4590 Introduction to Central Service
5-0-5
An introduction to the field of Central Service and its role in the hospital environment. Topics include: microbiology and infection control applicable to the Central Service discipline, decontamination procedures, disinfection, and anatomy and physiology.
Prerequisites: DE 0011, DE 0018 or appropriate COMPASS scores. Corequisites: MCH 4806.

## 4592 Principles of

 Material Management in Health Care3-0-3
An introductory course on material management operations in today's health care environment. Topics include: organizational structure, inventory management, systems operation, purchasing, distribution, procurement, procedures, and product standardization. Prerequisites: ST 4590 (minimum grade C), or program chair consent.

## 4593 Principles of

 Material Management in Health Care 2 3-0-3A continuation of ST 4592. Topics include: purchasing and procurement procedures, total quality management, operational functions, financial management, and legal issues applicable to material.
Prerequisites: ST 4592 (minimum grade C).
Corequisites: ST 4580.

## 4594 Fundamentals of Operating Room Practice <br> 3-2-4

Provides nurses with a basic foundation for OR practice. In lab, students learn beginning level skills performed by the scrub and the circulation nurse.
Prerequisites: Employer eligibility required.
4598 Special Studies - Surgical Technology Var-Var-Var
A student-initiated academic pursuit, mutually agreed upon by the student and faculty member and carried on outside the classroom. Before registration, the student must have the plan of study approved by a supervising faculty member and the Dean of Health and Public Safety.
Prerequisites: None.

## TBE HAZMAT, Rescue, and Safety

1001 Introduction to
Rescue Physics and Incident Command System $\mathbf{2 - 0} \mathbf{- 2}$
A course on the basics of the Incident Command System in Rescue Operations. Topics include: incident command systems, rescue operations tactics, responder safety, and rescue physics.
Prerequisites: None.

## 1002 Line Rope Rescue Operations

2-2-3
A course on the use of basic rope rescue operations. Topics include: rope design and lift capability, achors, rappelling, and vertical rescue techniques.
Prerequisites: None.

## 1003 Water and Ice Rescue Operation

2-2-3
A course on swift water rescue operations. Topics include: tactics of rescue swimming operations, water-rope operations, and boat operations.
Prerequisites: None.

1004 Permit-Required Confined Space Entry and Rescue 3-1-3
A course on entry and rescue operations pertaining to permit-
required confined spaces. Topics include: confined space entry techniques, air monitoring, rescue equipment, and rescue techniques.
Prerequisites: None.
Corequisites: THZ 1005, TBE 1002.
1005 Search Operations
2-2-3
A course on search rescue operations based on FEMA requirements. Topics include: search operations tactics, map reading, land navigation, use of GPS, and search dogs.
Prerequisites: None.

## 1006 Trench Rescue Operations

2-2-3
A course on trench rescue operations as outlined in the NFPA standard. Topics include: trench safety, trench shoring, rescue equipment, and rescue techniques.
Prerequisites: None.

1007 Structure Collapse Rescue
2-2-3
A course on FEMA and NFPA structural collapse rescue standard.
Topics include: building design, civil engineering principles, structural shoring, structural concrete, and rescue techniques. Prerequisites: None.

1008 Vehicle Extrication Operations
2-1-2
A course on vehicle design and rescue techniques. Topics include: truck, car and bus; pneumatic and hydraulic equipment; stuctural shoring; and victim stabilization and extraction.
Prerequisites: None.

## 1009 Machinery Rescue Operations

2-1-2
A course on machinery rescue techniques involving victims trapped in machinery. Topics include: design and operations, crushed and amputations, victim extractions, and use of pneumatics and hydraulic rescue equipment.
Prerequisites: None.
1010 Introduction to Incident and Crisis Management 3-0-3 A course that provides the emergency services or safety professional an in-depth understanding of incident command. Topics include: incident command operations, crisis leadership, HAZMAT and WMD (weapons of mass destruction) operations, natural disaster response planning, National Incident Management System (NIMS), and the National Response Plan (NRP).
Prerequisites: None.

## TC - Technical Communication TEM - Industrial Maintenance

## TC Technical Communication

## 5001 Introduction to

Multimedia Information Design Careers 2-0-2
An introduction to career requirements and options for various professions related to multimedia information design and industrial design. Topics include: career skills assessment; and directed research, reading, and writing to determine professional pathways and to understand employer expectations.
Prerequisites: None.
5010 Visual Literacy 2-2-3
A study of visual elements that contribute to quality in print and multimedia communication. Topics include: creating, perceiving, and interpreting visual messages; and fundamental design principles applied to various types of publications and graphical user interfaces (GUIs).
Prerequisites: None.

## 5020 Usability Assessment 1

An introduction to principles and techniques of human factors analysis, information design, and usability assessment and testing. Students apply these principles to a variety of products with emphasis on Web sites.
Prerequisites: IT 5453 (minimium grade C).
5021 Usability Assessment 2
2-3-3
A continuation of TC 5020. Students prepare usability test materials, implement several types of usability tests, and prepare usability assessment reports for a variety of products, emphasizing Webbased products.
Prerequisites: TC 5020 (minimium grade C).

## 5032 Developing Instructional Materials

A course on developing instructional materials for print and multimedia distribution. Topics include: audience and task analysis, elements of instructional content, and effective product design. Fluency in computer-assisted publishing is recommended. Prerequisites: ENG 1010 or ENG 1019 (minimium grade C for both).

## 5033 Developing Promotional Materials

3-2-4
A course on writing and designing promotional materials for print and Web distribution. Topics include: marketing communication principles, audience and product analysis, promotional writing styles and formats, and effective design of marketing materials. Fluency in computer-assisted publishing is recommended. Prerequisites: ENG 1010 or ENG 1019, MKT 2901 (minimium grade C for all).

## 5034 Planning and Developing Proposals

3-2-4
A course on developing effective proposals for project funding. Topics include: strategy and research; interpreting requirements and organizing, designing, and writing proposals. Word processing competency recommended. Degree-seeking students must successfully complete all English composition requirements before enrolling in this class.
Prerequisites: ENG 1010 or ENG 1019 (minimium grade C for both).

## 5035 Scriptwriting for Audio and Video

2-3-3
A course on fundamentals of writing short promotional and informational scripts. Topics include: developing concepts; analyzing audiences and products; formatting scripts, treatments, and storyboards; writing radio and television commercials and PSAs; and writing long-form informational and persuasive programs. Prerequisites: MKT 2901, six credits of English composition (minimium grade C for all).

5037 Writing and Designing Newsletters
2-2-3
A course on fundamentals of preparing newsletters. Topics include: journalism principles, writing news and feature stories, planning content, designing print and Web publications, and business and legal issues. Students must be able to use electronic publishing software.
Prerequisites: ENG 1001 or ENG 1018 (minimium grade C).
5041 Technical Editing Methods 1
2-2-3
A course on editorial concepts and techniques. Topics include: editor's role, editorial assessment process, levels of edit, proofreading, copy marking, stylebooks, and resource materials. Word processing, desktop publishing and basic Web site design competency recommended. Multimedia Information Design students must successfully complete all English composition requirements before enrolling.
Prerequisites: ENG 1010 or ENG 1019 (minimium grade C).

5042 Technical Editing Methods 2
A continuation of TC 5041. Topics include: expanding editorial roles and responsibilities, editing large and complex materials, and performing special editorial tasks.
Prerequisites: TC 5041 (minimium grade C).

## 5071 Technical \& Professional Communication

 Capstone ProjectWorking in teams, students write or edit content for print, Web, and other media products for an external client. Activities include: audience, client, and market analysis; product design, planning, production, and testing; and project management. Students present project results to reviewers. Students who are unable to complete the course successfully may make one additional attempt. Prerequisites: Completion of all other Technical \& Professional Communication degree requirements with grades of C or higher.

## 5089 Technical Communication Seminar:

 Portfolio Presentation2-3-3
A course in which students prepare a comprehensive professional portfolio documenting academic and work achievements. Students present portfolios to professional technical communicators for assessment.
Prerequisites: Successful completion of all other Technical Communication program requirements.

5098 Workshop in Technical Communication Var-Var-Var Group study and discussion of selected topics in technical communication. Course content and emphasis may vary from year to year. Prerequisites: None.

## 5099 Special Problems

in Technical Communication
Var-Var-Var
Individual studies and special projects pertaining to technical communication are assigned to students who are seeking advanced standing or implementing independent research or specialized technical communication projects. Enrollment requires prior approval of TC program chair and Dean of The Center for Innovative Technologies. May be repeated for credit.
Prerequisites: None.

## TEM Industrial Maintenance

1010 Basics of Industrial Electricity
A course on basic electrical theory, devices and applications. Hands-on lab exercises will reinforce basic electric concepts and help develop safe electrical maintenance techniques.
Prerequisites: None.

# TEM - Industrial Maintenance <br> THE - Theater <br> THZ - Hazmat, Rescue and Safety 

1230 Electrical Ladder Diagrams 2-1-2
Electrical Ladder Diagrams is a course designed to develop the ability to interpret and construct electrical ladder diagrams. Extensive ladder logic labs are used to reinforce the application of ladder logic.
Prerequisites: None.

## 1240 Industrial Power Systems 1

2-1-2
A comprehensive study of modern power distribution systems including: basic design, installation, and troubleshooting. Prerequisites: None.

## 1275 Motor Control Systems

3-2-4
A course for maintenance personnel involved in the selection, installation, and troubleshooting of industrial 480 three-phase motors and controls. Topics include: basic motors, basic control circuits/ladder logic, troubleshooting, two- and three-wire control, overload protection, jog/inch circuits, start-stop sequence, reversing circuits, and auxiliary control devices and interlocks. Prerequisites: None.

## 1285 Sensors for Industrial Control Systems

2-1-2
A course for maintenance personnel concerning selection, installation, and troubleshooting of discrete and analog sensors commonly found in manufacturing operations. Topics include: limit switches, pressure switches, proximity switches, photo eye sensors, process sensors with analog outputs, and motion sensors.
Prerequisites: None.
2010 Programmable Logic Controllers 1
3-1-3
A comprehensive course in PLC's designed by experts in the field of process control. Extensive labs using Allen Bradley SLC-500 and compact logic PLC's. Topics include: PLC operations, installation, basic programming, and troubleshooting.
Prerequisites: None.
2020 Programmable Logic Controllers 2
3-2-4
An extension of TEM 2010. This course is designed for electricians or instrument technicians who will be installing or troubleshooting advanced PLC controls. Course will go into advanced/special program instruction, data highways, PID control and remote I/O. Prerequisites: None.

## 2110 Industrial Electrical Troubleshooting

3-2-4
Industrial Electrical Troubleshooting course teaches a systematic approach to troubleshooting that works. Extensive troubleshooting labs enhance the hands-on learning experience.
Prerequisites: None.

## THE Theater

1670 Theater Appreciation 3-0-3
Study of theater as a mode of human expression. Topics include: developing awareness as an audience member; script analysis, acting styles, directing and design elements, and how these elements contribute to a successful production. Attendance at one live production during the term is required.
Prerequisites: None.

## 1671 History of the Theater

3-0-3
A course on the history of Western theater from classical antiquity through contemporary times that explores each period's contribution to modern theatrical practices. Course work includes regular written assignments and out-of-class screenings of plays from various periods.
Prerequisites: Six credits of English composition.

1672 Acting 1
3-0-3
The study of acting as a method of creative expression. Topics include: basic movement and vocal skills of the beginning actor, basic method for role preparation through script analysis, and theatrical vocabulary.
Prerequisites: None.

## 1673 Acting for the Camera

3-0-3
An introduction to film/video acting. Students learn techniques and terminology of the industry, study the work of master actors, and develop monologues and scenes with classmates to be recorded on video for study and auditions for the professional market. Prerequisites: None.

## 1674 Childrens Theater for the Classroom

3-0-3
The practice of creating an original story, or adapting a story and presenting it as a performance. Topics include: tools for creating characters and setting, steps for classroom rehearsal techniques, and staging a production.
Prerequisites: None.

## 1675 Puppetry

3-0-3
The creation of puppet plays based on original stories. Topics include: learning to use shadow, hand, string, and full-body puppets.
Prerequisites: None.
1678 Special Topics in Theater
Var-Var-Var
A course involving study and discussion of selected topics in theater. Content and emphasis may vary from term to term. Prerequisites: None.

## THZ HAZMAT, RESCUE AND SAFETY

1004 Hazardous (HAZWOPER) Material Technician Level (US EPA: Occasional Site Worker)
This training focuses on both defensive and offensive measures that stop and contain hazardous material (waste) spills and releases. Topics include USDOT Hazmat labeling, air monitoring, DECON operations, respiratory protections, and spill control covered in the operations level course are also covered in greater detail in this course. This course is designed to meet the OSHA, EPA, NFPA \& DOT training requirements for individuals who handle or are exposed to hazardous substances. A hazardous substance includes both hazardous material and hazardous waste. References: 29 CFR 1910.120; NFPA 704M; NFPA 471; 49 CFR 100-177. Prerequisites: None.

## 1005 40-Hour HAZMAT Workshop

3-2-4
A course designed for personnel involved with the investigation and remediation of hazardous waste sites, and to a lesser extent, response to an accident involving hazardous materials. It provides the basic information needed to meet the requirements of 29 CFR 1910.120 and 29 CFR 1926.62 (Hazardous Waste Operations and Emergency Response), NFPA Standard 471 and 40 CFR 311 Prerequisites: None.

## 1010 Basic Hazardous Materials Chemistry

2-0-2
A basic chemistry course specifically designed to assist emergency services and safety professionals who manage or respond to a hazardous material (HAZMAT) event. Topics include: atomic structures, chemical elements, periodic table, chemical bonding, chemical reactionsm, and HAZMAT chemical terminology. Prerequisites: None.

# THZ - Hazmat, Rescue and Safety TMGT - Management <br> TOS - Hazmat, Rescue and Safety 

## 1020 Management Issues in

Disaster Preparedness and Response
3-0-3
A course that provides the emergency services or safety professional an in-depth understanding of mangement issues during a disaster. Topics include: emergency response plans, risk assessment, crisis management teams, contingency planning, and continuity of operations.
Prerequisites: TBE 1010.

## 1030 Radiological and Biological Emergency Preparedness Planning

A course that provides the emergency services or safety professional in-depth understanding of radiological and biological incidents and their consequences. Topics include: radiological terminology, National Response Plan (NRP), biological threats, damage assessment, and containment protocols.
Prerequisites: TBE 1010.
1040 Introduction To Terrorism
A course designed to provide the Emergency Services or Safety Professional a basic understanding of terrorism and the terrorist. The course will also address the use of chemical, biological, radiological, nuclear, and explosives (CBRNE) in a terrorist incident. Prerequisites: None.

1041 Consequences of Terrorism
A course that provides emergency services or safety professionals a basic understanding of how terrorists plan and execute an attack. Topics include: history of terrorism, terrorist tactics and operations, case studies of terrorist attacks, and cultural and political awareness. Prerequisites: TBE 1010.

1050 Disaster Forecasting and Modeling
A course designed to provide the emergency services or safety professional a basic understanding of the CAMEO systems. Topics include: CAMEO (Computer-Aided Management of Emergency Operations), GIS (Geographic Information Systems), and HAZMAT (Hazardous Material) Response Planning.
Prerequisites: None.

## 1060 Media Relations in a Crisis 2-2-2

This introductory course provides a public and or private sector spokesperson or public affairs officer basic skills on media relations and operations during a crisis. Topics include: types of media, public information officer duties and responsibilities, press kits, media plans, and press briefings.
Prerequisites: None.
Corequisites: None

## TMGT Management

9218 Cooperative Education Technology Management 1-40-2
Students seeking an associate's degree participate in a paid field learning experience related to their degree program. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

## 9219 Cooperative Education

 Technology Management - Parallel1-20-1
Students seeking an associate's degree participate in a paid field learning experience related to their degree program for a minimum of 20 hours per week. Students must also register for academic course requirements during the same term. Students must adhere to cooperative education policies and procedures to earn credit. Course may be repeated.
Prerequisites: Admitted to program, 2.0 minimum GPA.

## TOS HAZMAT, RESCUE AND SAFETY

1001 OSHA 10 Hour General Industry
Safety \& Health Training Course
1-0-1
This course is designed to provide an initial and basic overview of key OSHA General Industry Safety Standards. It is important to remember that this course shall provide only the basics on Occupational Safety. The course is designed for both the "worker" and novice safety professional.
Prerequisites: None.
Corequisites: None.
1002 OSHA 30 Hour General Industry Safety \& Health Training Course
This course is designed to provide the basic knowledge on "how to develop an organization's safety program. In order to develop and administer a comprehensive safety program, it is critical for a safety professional or a member of management to know "where to look" and "how to apply" specific OSHA regulations that effect your organization.
Prerequisites: None.
1010 Permit-Required Confined Space Entry 1-1-1
This course is designed to increase the student's knowledge of hazards associated with permit-required confined space entry operations. Topics include: types of confined space, lockout-tagout requirement, air monitoring, and entry equipment.
Prerequisites: None.
1020 Fall Protection Safety
2-2-3
A course on scaffolding and fall protection safety at a construction work site. Topics include: the requirements outlined in OSHA 20 CFR 1926 Scaffold Safety and Fall Protection.
Prerequisites: None.

## 1021 Excavation Safety

A course on safety during excavation and trenching operations.
Topics include: the requirements outlined in OSHA 29 CFR 1926
Subpart P (Excavations).
Prerequisites: None.
1022 Work Zone Safety
A course on Work Zone Safety. Topics include: design, construction, operations, maintenance, and the Manual on Uniform Traffic Control Devices (MUTCD).
Prerequisites: None.
1023 Hoisting and Material Handling Safety 2-2-3
A course on safety of hoisting and material handling operations. Topics include: the requirements outlined in OSHA 29 CFR 1926 Cranes and Material Handling.
Prerequisites: None.

## 1024 Electrical Safety

A course on electrical safe work practices at construction sites.
Topics include: the requirements outlined in OSHA 29 CFR Part
1926 and the National Fire Protection Standard 70 E.
Prerequisites: None.
1030 Safety Trainer
2-0-2
A course to train instructors in the methods used to teach employees safety practices. Topics include: basic teaching methods for adult learners regarding safety topics and skills at a job site.
Prerequisites: None.

## TPI - Industrial Maintenance <br> TTT - ENVIRO/HEALTH/SAFETY

## TPI Industrial Maintenance

2110 Industrial Controls \& Instrumentation 1: Introduction \& Pressure Control
A course on basic concepts related to process controls and instrumentation. Topics include: controllers, transmitters, variable frequency drives (VFDs) and control valves, and automatic control techniques. Laboratory exercises include loop wiring, calibration, controller configuration, and troubleshooting.
Prerequisites: None.
2120 Industrial Controls \& Instrumentation 2: Temperature

3-1-3
A continuation of TPI 2110. Topics include: control of temperature and pressure. Laboratory and computer simulations are used to deepen understanding of lecture topics.
Prerequisites: None.
2130 Industrial Controls \& Instrumentation 3: Level \& Flow
A continuation of TPI 2120. Topics include: control of level and flow, installation, calibration, configuration, and troubleshooting. Laboratory exercises are used to deepen understanding of lecture topics.
Prerequisites: None.
2140 Industrial Controls \& Instrumentation 4: Final Control Elements
A continuation of TPI 2130. Topics include: industry use of final control units and how to select, install, configure, and troubleshoot pneumatic control valves and variable frequency drives (VFDs).
Laboratory exercises are used to deepen understanding of lecture topics.
Prerequisites: None.

2150 Industrial Controls \& Instrumentation 5: Analytical Control 3-1-3
A continuation of TPI 2140. Topics include: control of analytical and measurement processes such as ORP, pH , conductivity, and chromatography. Laboratory exercises deepen understanding of lecture topics.
Prerequisites: None.

## TTT ENVIRO/HEALTH/SAFETY

## 1000 Nurse Aide Train-the-Trainer Program <br> 3-0-3

This state-approved course meets the requirements for nurses teaching either the classroom or clincial supervised parts of an approved Training and Competency Evaluation program for long-term care aides.
Prerequisites: RN or LPN with an active Ohio License and two years experience caring for the elderly.


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## 2007-2008 Calendar

| Early Fall 2007 |  |
| :---: | :---: |
| Monday, September 3 | Labor Day - College closed |
| Tuesday, September 4 | Classes begin |
| Tuesday, September 4 Monday, September 10 | Instructor consent required to register for a course that has met |
| Monday, September 10 | Last day to drop a course and receive a $100 \%$ refund of tuition |
| Tuesday, September 11 Monday, September 17 | Instructor and dean consent required to register for a course |
| Monday, September 17 | Last day to drop a course and receive a $50 \%$ refund of tuition |
|  | Last day to register or enter a course |
|  | Last day to drop a course without a grade appearing on student's record |
|  | Last day to declare an Audit in a course |
| Tuesday, September 18 | First day to request a Withdrawal for a course |
| Monday, October 22 | Last day to Withdraw from a course |
| Monday, November 5 | Classes end |
| Late Fall 2007 |  |
| Monday, November 12 | Veterans' Day observed - College closed |
| Tuesday, November 13 | Classes begin |
| Tuesday, November 13 Monday, November 19 | Instructor consent required to register for a course that has met |
| Monday, November 19 | Last day to drop a course and receive a $100 \%$ refund of tuition |
| Tuesday, November 20 Monday, November 26 | Instructor and dean consent required to register for a course |
| Wednesday, November 21 Friday, November 23 | Thanksgiving Holiday - College closed |
| Monday, November 26 | Last day to drop a course and receive a $50 \%$ refund of tuition |
|  | Last day to register or enter a course |
|  | Last day to drop a course without a grade appearing on student's record |
|  | Last day to declare an Audit in a course |
| Tuesday, November 27 | First day to request a Withdrawal for a course |
| Saturday, December 22 Tuesday, January 1, 2008 | Winter Break - College closed |
| Monday, January 14 | Last day to Withdraw from a course |
| Monday, January 21 | Martin Luther King Jr. College closed |
| Tuesday, January 29 | Classes end |
| Winter 2008 |  |
| Monday, February 4 | Classes begin |
| Monday, February 4 Friday, February 8 | Instructor consent required to register for a course that has met |
| Friday, February 8 | Last day to drop a course and receive a $100 \%$ refund of tuition |
| Monday, February 11 - <br> Friday, February 15 | Instructor and dean consent required to register for a course |


| Friday, February 15 | Last day to drop a course and receive a $50 \%$ refund of tuition |
| :---: | :---: |
|  | Last day to register or enter a course |
|  | Last day to drop a course without a grade appearing on student's record |
|  | Last day to declare an Audit in a course |
| Monday, February 18 | Presidents' Day - College closed |
| Tuesday, February 19 | First day to request a Withdrawal for a course |
| Monday, March 24 | Last day to Withdraw from a course |
| Monday, April 7 | Classes end |
| Spring 2008 |  |
| Monday, April 14 | Classes begin |
| Monday, April 14 Friday, April 18 | Instructor consent required to register for a course that has met |
| Friday, April 18 | Last day to drop a course and receive a $100 \%$ refund of tuition |
| Monday, April 21 Friday, April 25 | Instructor and dean consent required to register for a course |
| Friday, April 25 | Last day to drop a course and receive a $50 \%$ refund of tuition |
|  | Last day to register or enter a course |
|  | Last day to drop a course without a grade appearing on student's record |
|  | Last day to declare an Audit in a course |
| Monday, April 28 | First day to request a Withdrawal for a course |
| Monday, May 26 | Memorial Day - College closed |
| Monday, June 2 | Last day to Withdraw from a course |
| Monday, June 16 | Classes end |
| Summer 2008 |  |
| Monday, June 23 | Classes begin |
| Monday, June 23 Friday, June 27 | Instructor consent required to register for a course that has met |
| Friday, June 27 | Last day to drop a course and receive a $100 \%$ refund of tuition |
| Monday, June 30 Thursday, July 3 | Instructor and dean consent required to register for a course |
| Thursday, July 3 | Last day to drop a course and receive a $50 \%$ refund of tuition |
|  | Last day to register or enter a course |
|  | Last day to drop a course without a grade appearing on student's record |
|  | Last day to declare an Audit in a course |
| Friday, July 4 | Independence Day - College closed |
| Monday, July 7 | First day to request a Withdrawal for a course |
| Monday, August 11 | Last day to Withdraw from a course |
| Sunday, August 24 | Classes end |
| Early Fall 2008 |  |
| Monday, September 1 | Labor Day - College closed |
| Tuesday, September 2 | Classes begin |

## Degrees and Certificates

## Business Technologies Division

Associate of Arts
Pre-Business Administration *
Associate of Applied Business
Accounting Technology *
Automotive Service Management Technology *
Bookkeeping Technology
Business Financial Services Technology *
Business Management Technology *
Culinary Arts Technology *
Executive Assistant Technology *
Food Service Management Technology *
Graphics Imaging Technology *
Hotel Management Technology *
International Trade Management Technology *
Landscape Horticulture Technology *
Legal Assistant Technology *
Marketing Management Technology *
Medical Administrative Assistant Technology $\dagger$
Office Management Technology *
Pastry Arts Technology *
Real Estate Technology •
Technology Management +
Turfgrass Management Technology *
Associate of Applied Science
Dietetic Technician *
Pre-Dietetic Technology
Certificates
Accounting *
Advertising Design -
Automotive Service Technician *
Bookkeeping
Computer Applications *
Culinary Arts *
Dietary Management -
Entrepreneurship •
Human Resource Management •
Landscape Design *
Office Support *
Paralegal *
Pastry Arts •
Personal Chef
Printing Management
Production Artist •
Turfgrass Management *

## Center for Innovative Technologies

Associate of Applied Business
Computer Information Systems Technology *
Network Administration Technology *
Associate of Applied Science
Audio/Video Production *
Aviation Maintenance Technology *
Business Computer Programming and Database Management Technology *
Chemical Technology *
Civil Engineering Technology
Civil Engineering Technology - Architectural *
Civil Engineering Technology - Construction Management *
Civil Engineering Technology - Surveying *
Computer Network Engineering Technology *
Electrical Engineering Technologies
Biomedical Equipment \& Information Systems Technology *
Electro-Mechanical Engineering Technology *
Electro-Mechanical Engineering Technology -
Renewable Energy *
Electronics Engineering Technology *
Power Systems Engineering Technology
Environmental Engineering Technology *
Environmental Engineering Technology -
Water \& Wastewater Major *
Graphic Design *
Industrial Design Technology *
Mechanical Engineering Technology *
Mechanical Engineering Technology - Design *
Mechanical Engineering Technology - Manufacturing Management *
Mechanical Engineering Technology - Plastics Option *
Multimedia and Web Design *
PC Support and Administration Technology *
Software Engineering Technology *
Certificates
Advanced Surveying *
Aviation Mechanics Airframe *
Aviation Mechanics Powerplant *
Avionics *
Computer Repair -
Construction Safety Specialist *
Electro-Mechanical Engineering Technology - Renewable Energy *
Electronic Publishing *
Environmental Safety and Security *
Land Surveying *
Manufacturing CNC •
Web Design *

Health and Public Safety Division
Associate of Applied Science
Biotechnology $\dagger$
Clinical Laboratory Technician -
Diagnostic Medical Sonography -
DMS - Abdominal/Obstetric-Gynecology
DMS - Cardiovascular
Emergency Medical Technician - Paramedic Technology *
EMT - Paramedic - Management Major
EMT - Paramedic - Science Major
Fire Service Technology *
Fire Service Leadership
Health and Fitness Technology *
Health Information Management Technology *
Integrative Medical Massage Therapy *
Multicompetency Health Technician *
Nursing (RN)
Nursing - LPN to RN Progression Program *
Occupational Therapy Assistant Technology -
Respiratory Care Technology
Safety and Security Management Technology -
Safety and Security Management-Construction Safety Major
Safety and Security Management-Environmental Safety and Security Major
Safety and Security Management-Healthcare Leadership Major
Safety and Security Management-Leadership Major
Safety and Security Management-Hazardous Material Incident Major
Surgical Technology -
Associate of Technical Study
Integrative Medical Massage Therapy
Certificates
Aquatic Group Fitness Instructor -
Central Service Technology
Coding Specialist *
Diagnostic Medical Sonography -
DMS - Abdominal/Obstetric-Gynecology
DMS - Cardiovascular
Health Unit Coordinator
Electrocardiography (Advanced) Arrhythmia Recognition •
Emergency Medical Technician - Basic *
Emergency Medical Technician - Paramedic *
Geriatric Activities Coordinator
Group Fitness Instructor -
Holistic Yoga Instructor -
Medical Assistant Technology -
Medication Aide
Nurse Aide Train-the-Trainer *
Nurse Aide Training *
Patient Care Assistant
Personal Fitness Trainer -
Pilates Mat Instructor
Resistance Training •
Restorative Aide

## Humanities Division

Associate of Arts *
Associate of Technical Study *
Associate of Technical Study - Law Enforcement *
Associate of Applied Science
Early Childhood Care and Education *
Interpreter Training *
Certificates
Deaf Studies *
Child Development Associate
Early Childhood Care and Education *
Early Childhood Care and Education Leadership *
Early Childhood Care and Education Literacy *
Employee and Labor Relations *
Human Services *
Infant/Toddler
Religious Studies
School Age

## Sciences Division

Associate of Science *

## Workforce Development Center

Certificates
Construction Safety Specialist
Disaster Response Management
Industrial Controls \& Instrumentation
Industrial Electrical Maintenance
Machine Maintenance
Programmable Logic Controllers


[^0]:    English Composition
    Credit Hours
    Mathematics (Algebra \& Statistics)

