## Quarter Calendars

Summer Quarter 2007
June 18-Aug. 24, 2007
May 7-13

May 14
June 8
June 11 Mature Citizens and SOCHE registration begins
June 13 Last day to pay for Summer terms A, C, D
June 15 General registration-8 a.m. to 5 p.m.
Records Office, Rhodes Hall
Payment is due at time of registration
June 16
June 18
July 4
July 6
July 13
July 20

July 23
Aug. 10
Aug. 17
Aug. 24

Fall Quarter 2007
Sept. 5-Nov. 20, 2007
May 14
Aug. 16
Aug. 22
Aug. 24
Aug. 25
Aug. 30
Sept. 3
Sept. 4
Sept. 5
Sept. 8
Oct. 10-16
Oct. 23
Nov. 12
Nov. 14-20
Nov. 20
Nov. 22-24

Open registration begins
Last day to pay without late fee for students enrolled in Fall Quarter
Last day to pay fees for students enrolled in Fall Quarter
General registration-8:00 a.m. to 5 p.m. Records Office, Rhodes Hall
Registration and payment: 9 a.m. to 12 noon
Mature Citizens and SOCHE registration begins
College Closed - Labor Day
Activity/Development Day
Fall Quarter begins
Registration and payment:
9 a.m. to 12 noon
Midterm week
Last day to drop with a "W" for Fall Quarter
College Closed - Veterans Day
Final exams
Fall quarter ends
College Closed - Thanksgiving Holiday

Winter Quarter 2008
Jan.7-March 22, 2008
Nov. 5-12 Priority registration for students currently enrolled and students enrolled any of the previous four quarters
Nov. 13
Nov. 20
Nov. 26
Nov. 30
Dec. 5 Last day to pay fees for Winter Quarter
Dec. 7 General registration-8:30 a.m. to 5 p.m. Records Office, Rhodes Hall
Dec. 18
Dec. 21
Dec. 24-25
Jan. 1
Jan. 7
Jan. 21
Feb. 11-15
Feb. 22
Mar. 17-22
Mar. 22
Spring Quarter 2008
March 31-June 13, 2008
Feb. 18-22 Priority registration for students currently enrolled and students enrolled any of the previous four quarters
Feb. 25
Mar. 14

Mar. 19

Mar. 21
Mar. 24
Mar. 29
Mar. 31
May 5-10
May 16
May 26
June 7-13
June 13
June14

Open registration begins
Last day to pay without late fee for students enrolled Spring Quarter
Last day to pay for students enrolled in Spring Quarter
General registration - 8:30 a.m. to 5 p.m. Records Office, Rhodes Hall
Mature Citizens and SOCHE registration begins
Registration and payment 9 a.m. to 12 noon
Spring Quarter begins
Midterm week
Last day to drop with a "W" for Spring Quarter
College Closed - Memorial Day
Final exams
Spring Quarter ends
Graduation

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Cover art and photography created by the following Clark State Graphic Design students, under the direction of Doug Toles:

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Welcome to Clark State


Dear Students,
Welcome to Clark State! Whether you are just beginning your college career, training for a new job or career advancement, or want to take classes to brush up on your skills, I'm confident you'll find the time you spend here rewarding.
There's never been a more exciting time to be a part of your community's college. Fall Quarter marks the official opening of our new state-of-the-art facility on the Leffel Lane Campus and the Greene Center in Beavercreek.
The $\$ 16.8$ million Sara T. Landess Technology and Learning Center will house modern classrooms and expanded health sciences wing, as well as many student services such as Admissions, Advising, Career Management, the Success Center and the library.
Last summer, Greene County community leaders approached Clark State about their desire to have a community college located inside their borders. Clark State Greene Center opened its doors Winter Quarter and the permanent facility will be open for Fall Quarter. Located along I-675 in Beavercreek, the Greene Center will offer the quality education you've come to expect from Clark State, as well as specially designed programs that meet the employment needs of the community.
Clark State offers more than 50 degree and certificate programs, and continues to be a leader in online learning. Our affordable tuition, supportive faculty and diverse student body make Clark State the smart choice for thousands of students each year.
Your College Catalog is designed to assist you in learning more about Clark State, our policies and your course of study. You'll also find out more about the student services and activities available on campus. For your convenience, this catalog can be accessed online at www.clarkstate.edu.

I wish you the best of luck as you begin your pathway to the future.


President

This Catalog was prepared prior to the 2007-2008 academic year for informational purposes only. The educational programs are changed whenever it is necessary to stay abreast of rapid changes in technology and our world. Clark State reserves the right to alter or amend any item contained herein without notice. We encourage you to consult with your advisor or the appropriate College official for confirmation of matters that are essential to your program of study.

Clark State Community College is committed to assuring equal opportunity to all persons and does not discriminate on the basis of race, color, sex, gender, ethnicity, religion, national origin, sexual orientation, ancestry, age, marital status, veteran status, socio-economic status or physical or mental disability and any other protected group status as defined by law or College policy in its educational programs, activities, admissions or employment practices as required by Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the American with Disabilities Act and other applicable statutes.

In accordance with the Americans with Disabilities Act, it is the policy of Clark State Community College to provide reasonable accommodations to persons with disabilities. If you require disability-related accommodations, please contact the Office of Disabilities at 937/328-6019.

Please address correspondence to Clark State Community College, Post Office Box 570, Springfield, Ohio 45501 or telephone 937/325-0691.

## About Clark State

Whether you've chosen Clark State because of our small class sizes, our devotion to quality education, our affordability or our exceptional variety of programs, we're glad you did. The following information will tell you more about Clark State and how it evolved into the outstanding learning institution it is today. It will also give you valuable insight into our mission, and how we can serve you, our students.

## History of the College

Clark State Community College began in 1962 as the Springfield and Clark County Technical Education Program in an effort to meet the post-secondary, technical education needs of Springfield and the surrounding area. In 1966 the name was changed to Clark County Technical Institute (CCTI) and was chartered by the Ohio Board of Regents as Ohio's first technical college. In 1972, ten years after its birth, CCTI had grown to 1,000 students and officially became Clark Technical College. New programs in agriculture, business, engineering technologies, health, public services and general studies were developed in response to the community's changing educational and economic needs.

In the 1970s the College re-examined its mission and determined that programs, which can be transferred to fouryear colleges, should be included as a secondary focus. In order to accomplish this, many new courses in humanities and social sciences were added to the curriculum. By 1985 Clark Technical College had developed one of the broadest general education programs of any technical college in the state. It was this solid foundation, together with the many strong technical programs, that made the evolution to a
community college a smooth and logical step.
On July 1, 1988, the Ohio Board of Regents approved the change of Clark Technical College to Clark State Community College. As a result of this action, Clark State added the Associate of Arts and Associate of Science degrees (university parallel programs) to the nearly 30 technical associate degrees and certificates it had offered for years. The College now has more than 50 degrees and certificate programs.

Today Clark State looks proudly at its past and looks forward to the future, ready to meet the needs of today's and tomorrow's students.

## Vision Statement

Opportunity without boundaries, learning without end, achievement without limits

## Mission Statement

The purpose of Clark State Community College is to foster individual and community prosperity through access to the highest quality, learner-centered education. This purpose will be achieved when:

## Student Success

- Students are successful in gaining entry to and advancing in the workplace, resulting in pay commensurate with skills attained and personal goals.
- Students are successful in transferring to further education consistent with skills attained and personal goals.


## Workforce Development

- Employers are able to improve their competitive position by accessing human resource and workforce development services.


## Lifelong Learning

- Students have opportunities for lifelong learning, personal growth and values development resulting in improved quality of life.


## Access/Opportunity

- Barriers to accessing education and training are minimized allowing diverse populations to achieve and get what they need.


## Community Development

- The community recognizes the College as an energizing force to address common issues, a vital community resource and a source of community pride.


## Guiding Principles

## We believe in the power of education to change people's lives. Toward that end, we:

- place learners first.
- aspire to be innovative, accepting inherent risks.
- seek to improve continuously.
- act as good stewards of the resources with which we are entrusted.
- connect with the diverse communities we serve.
- create synergy through partnerships.
- trust, respect and care for those with whom we work and serve.
- celebrate the creativity, diversity and accomplishments of our college community.


## Assessment of Student Academic Achievement: Improving Student Learning

The Board of Trustees, faculty and staff affirm the following: Student learning is at the core of our purpose as a College. The ability to measure learning accomplishes two purposes: it allows us to demonstrate our accountability to our various publics, but more importantly, it provides us with the capacity to impact and improve the degree of learning that goes on in our College.

The College has developed a Plan to Assess Student Academic Achievement, in accordance with the requirements of The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools. The plan ensures the College has specific learning outcomes for each of its degree programs and validates that students earning degrees have achieved those outcomes. Validity measures include instructor assessment, certification examinations, national standard examinations, employer surveys, success of student transfer and evaluations by external professionals. The results of the assessment efforts are used to improve instruction as necessary to guarantee that our students can succeed in the workforce or in further education.

## Facilities

Clark State Community College has three campus locations. The Leffel Lane Campus, at 570 East Leffel Lane, is situated on the southern border of Springfield just north of Interstate 70. Our Downtown Campus is located in the heart of downtown Springfield. Major city streets and city bus service provide easy travel between campuses. You'll find our easy-to-follow campus maps on the inside back cover. Clark State Greene Center is located in College Park, on the first floor of Building One at 3775 New Germany-Trebein Road in Beavercreek. Clark State also offers classes at other locations in the community, including Ohio Hi Point Career Center in Logan County. These classes are included in our quarterly class schedule

## Distance or Online Learning

Distance or online learning at Clark State offers alternative modes of instructional delivery for students who, for a variety of reasons, may not be able to attend traditionally scheduled classes. Courses offered in this format do not alter the course content or the expected student learning outcomes. The only significant difference is in the method of instructional delivery. Currently, the College supports several instructional formats: directed learning, online, self-paced and web-enhanced. Clark State offers over 130 online credit courses to learners throughout its service area.

Through this initiative, accredited courses are accessible to anyone, anywhere, at any time, providing students with a convenient way to complete their degrees. Students enroll and progress through the course following an established calendar of assignments. As long as they meet the established deadlines for contributions, students can participate at times convenient for them.
Distance or online courses are taught by experts in their disciplines and, depending on the course, are available in a variety of delivery formats.

## Accreditations/Approvals

Clark State Community College is accredited by The Higher Learning Commission: A Commission of the North Central Association of College and Schools, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504, or call 1-800-621-7440.

The Realtime/Judicial Reporting program is approved by the National Court Reporters Association, 8224 Old Courthouse Road, Vienna, VA 22182-3808, 703/556-6272. The Early Childhood Education program is approved by the Ohio Department of Education for Pre-Kindergarten Associate Certification, 25 South Front Street, Columbus, OH 43215, 1-877-644-6338. The Registered Nursing program is approved by the Ohio Board of Nursing, 17 South High Street, Suite 400, Columbus, OH 43215-7410, 614/4660388 or online at www.nursing.ohio.gov and accredited by the National League for Nursing Accrediting Commission, 61 Broadway, 33rd Floor, New York, NY 10006. Telephone: 1-800-669-1656, extension 153, or online at www.nlnac. org. The Practical Nursing program is approved by the Ohio Board of Regents and the Ohio Board of Nursing, 17 South High Street, Suite 400, Columbus, Ohio, 432157410, 614/466-0388 or online at www.nursing.ohio.gov. The Medical Laboratory Technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631. Telephone: 773/714-8880, or online at www.naacls.org. The Paramedic program is accredited by the Ohio Department of Public Safety Services, \#308-OH, Emergency Medical Services, 1970 W. Broad Street, Columbus, OH 43218, Telephone 1-800-233-0785. The Physical Therapist Assistant program is accredited by the Commission on Accreditations in Physical Therapy Education of the American Physical Therapy Association, 1111 N. Fairfax Street, Alexandria, VA 22314. Telephone: 1-800-999-2782, or online at www.apta.org/education/accreditation.

## Technical Degrees

Our technical degree programs are designed as two-year programs provided you attend Clark State on a full-time basis. Many of our students, however, take longer than two years to complete degree requirements. Although many courses from the technical programs are transferable, these programs are designed primarily as pre-employment programs. If you choose to complete dual majors in related associate degree programs, you should allow yourself about three additional quarters to complete both programs. The following technical degrees are offered: Associate of Applied Business (AAB), Associate of Applied Science (AAS) and Associate of Technical Studies (ATS).

## Agriculture Technologies

Agricultural Business Technology ..... AAB
Agricultural Engineering Technology Option ..... AAS
Horticultural Industries TechnologyGolf Course Operations OptionAAS
Landscape Design Option ..... AAS
Nursery Operations Option ..... AAS
Parks and Recreation Operations Option ..... AAS

Business Technologies
Accounting Technology AAB
Computer Networking Option AAB

Advanced Computer Networking Option AAB
CyberSecurity Specialist Option AAB
Technical Systems Support Option
AAB
Computer Software Development AAB
Graphic Design Technology AAB
Judicial Reporting AAB
Broadcast Captioning/CART Option
AAB
Paralegal Technology (1st year)
Management Technology
CyberSecurity Management Option
Logistics and Supply Chain Management Option
Marketing and E-Business Option
Office Administration Technologies
Medical Office Administration
Professional Office Administration
Engineering Technologies
CAD Drafting Technology
Engineering Transfer AS
Industrial Technology
Manufacturing Engineering Technology
Mechanical Engineering Technology
Health and Human Services Technologies
Early Childhood Education
Early Childhood Education
Administration Option
Early Elementary Paraprofessional
Emergency Medical Services/Paramedic Technology
Medical Laboratory Technology
Nursing Transition LPN to RN
Physical Therapist Assistant Technology AAS
Registered Nursing Technology
Registered Nursing - Evening Technology AAS
Social Services Technology
Public Services Technologies
Criminal Justice Technology
Basic Police Officer Training
Criminal Justice
Corrections Technology

## Certificate Programs

Accounting Certificate
Computer-Aided Design Certificate
Electrical Maintenance Certificate
Management Certificate
Manufacturing Certificate
Multi-Skilled Health Care Certificate
Photography Certificate
Practical Nursing Certificate

## Departmental Certificates

Chemical Dependency Certificate
Communications Certificate
Computer Software Development/
Programming Certificate
Customer Service Certificate
Early Literacy Development Certificate
Early Childhood Administration Certificate
Electrocardiography Certificate
Electronics Certificate
EMT-Basic Certification
EMT-Intermediate Certification
Logistics and Supply Chain Management Certificate
Machine Transcription Certificate
Marketing E-Business Certificate
Medical Coding Certificate
Medical Transcription Certificate
Microsoft Database Administration/
Networking Certificate
Microsoft Database Administration/
Programming Certificate
Network Administration Certificate
Network Infrastructure Certificate
Nurse Aide Training Certificate
Oracle Database Management Certificate
Paramedic Certification
Paramedic Certification for RN
Patient Care Technician Certificate
Phlebotomy Certificate
Security Wireless Certificate
Small Business Certificate
Supervisory Certificate
Systems Analysis Certificate
Technical Support Certificate
Theatre Arts Administration Certificate
Web Services Certificate

## Associate of Technical Studies

Clark State also offers an Associate of Technical Studies degree if your career needs are not met by one of our technical degree programs. The flexibility of this program permits you to work with an advisor to construct an interdisciplinary degree program from present course offerings. The program may include courses from more than one technology based on your specific goals.

To pursue an Associate of Technical Studies, you need to apply prior to completing 60 credit hours. You can apply at any division office. An advisor will be assigned to work with you to devise a specific program, which must then be approved by the divisional administrator.

An Associate of Technical Studies program must contain at least 21 credit hours of basic courses, 23 credit hours of non-technical courses, 45 credit hours of technical courses and 9 credit hours of electives.

## General Education

CORE (Common Outcomes Required in Education) is Clark State Community College's philosophy of general education, the general body of common knowledge, concepts and attitudes essential to functioning effectively in a complex, diverse and changing world. The common CORE supports learners in their journey toward life-long fulfillment.

Upon completion of an associate degree from Clark State Community College, a graduate will be able to:

- write clearly and accurately in a variety of contexts and formats.
- speak clearly and accurately in a variety of contexts and formats.
- work effectively in teams.
- use critical thinking and problem solving to draw logical conclusions.
- articulate issues or concepts from diverse perspectives.

The Assessment Committee has established tools by which the CORE is assessed and how the results of the assessment are used to improve student learning at Clark State Community College.

## Requirements in English, Humanities and Social Sciences

As a Clark State student, you are required to complete courses that focus on the development of skills and knowledge in general education. These courses include requirements in English and Humanities/Social Sciences.
Students in technical programs take English I, English II and either Business Communications or Technical Report Writing, whichever is required.

If you are pursuing a technical degree, you must also take four courses in the humanities and social sciences (including at least one in each area). The Arts and Sciences Division recommends that you take no more than one course from each discipline (psychology, sociology, etc.).
In recognition of the growing importance of global awareness and increasing diversity, we also require that at least one of these four general education courses contain a significant amount of international material. Courses meeting this requirement are designated with a GA following each course.

Students registering for courses should use the following list:

## Social Sciences

ECO 110
GEO 110
GEO 220
PLS 110
PLS 120
General Economics*
World Human Geography (GA)
World Regional Geography (GA)

PLS 130
PLS 220
PLS 230
PSY 111
American National Government
American Issues
Political Issues (GA)
Constitutional Law
International Politics (GA)
PSY 111 Psychology I
RST 260 Regional Studies: Asia-China (GA)

RST 262
RST 270
RST 280
SOC 110
SOC 140
SOC 220
SOC 230
SOC 240
Regional Studies: Asia-India (GA)
Regional Studies: Africa (GA)
Regional Studies: Latin America (GA)
Sociology
Marriage and Family (GA)
Comparing Cultures (GA)
Social Problems
Racial and Cultural Minorities

## Humanities

ART 130
ART 133
ART 134
ART 135
ART 138
ENG 130
ENG 225
ENG 230
ENG 231
ENG 241
ENG 243
ENG 245 Drama (GA)
ENG 250 American Literature
ENG 261 British Literature to 1700 (GA)
ENG 262 British Literature 1700-present (GA)
HON 291 Science \& Religion (GA)
HST 111 Western Civilization to the 14th Century (GA)
HST 112 Western Civilization from the 14th through the 18th Century (GA)
HST 113 Western Civilization from the 19th Century to the Present (GA)
HST 114 Western Civilization to the 14th Century: Honors (GA)
HST 121 American History to 1810
HST 122 American History 1810-1900
HST 123 American History 1900-Present (GA)
HST 220 Topics in African-American History and Culture (GA)
HUM 299 Capstone Seminar (GA)
MUS 130 Music Appreciation (GA)
PHL 110 Problems in Philosophy (GA)
PHL 111 Problems in Philosophy: Honors (GA)
PHL 200 Critical Thinking
PHL 205 Deductive Logic
PHL 210 Ethics (GA)
PHL 220 Business Ethics (GA)
PHL 230 Medical Ethics (GA)
PHL 240 Philosophy of World Religions (GA)
PHL 250 Great Books: Philosophy (GA)
SPN 100 Conversational Spanish (GA)
THE 105 Oral Interpretation of Literature
THE 130 Introduction to Theatre (GA)
THE 270 Theatre History I (GA)
THE 271 Theatre History II (GA)
*ECO 110 cannot be used as a general education elective for the Accounting, Management or Marketing and E-Business programs.

## Transfer Degrees

You can complete the first two years of a baccalaureate degree at Clark State and then transfer to a four-year college or university to complete the last two years. Clark State has developed university parallel transfer degrees through articulation agreements with most four-year colleges and universities in the area. The transfer degrees are the Associate of Arts (AA) and Associate of Science (AS).

The primary purpose of these associate degrees is to provide transfer credit to four-year colleges and universities. You can transfer successfully to other institutions in areas such as business, psychology, English, theatre, urban affairs, art, agriculture, education, engineering sciences and engineering technologies.

More than half of our transfer students are traditional students between the ages of 18 and 22. Tuition and fees at Clark State are about 50 percent less than those of public four-year institutions. This, coupled with small classes and a low student-to-instructor ratio, makes Clark State a great place to earn the first two years of a bachelor's degree.

In addition, we offer many activities, such as student government, intercollegiate sports, honors programs and various support services, such as financial aid and scholarships, counseling and tutoring services.

We have more than 75 curriculum guides available to help you plan your course of study at Clark State and to maximize the transferability of your classes to other institutions.

Clark State Community College has transfer agreements with the following four-year institutions:

Antioch University and the McGregor School of Antioch Capital University
Central State University
DeVry Institute of Technology
Franklin University and Franklin University Alliance Programs
Miami University, College of Applied Science
The Ohio State University
University of Dayton, General Education
Requirements and Engineering Technology Department
University of Phoenix
University of Toledo
Urbana University
Wilberforce University
Wittenberg University
Wright State University
(Course equivalents also exist with Columbus State, Miami University, Ohio University and University of Toledo.)

## Policy of Statewide Articulation Agreement Institutional Transfer

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

Clark State Community College is a member of Ohio's Course Applicability System (CAS). Information about whether Clark State Community College's credit hours will apply at many other Ohio colleges and universities, and vice versa, may be found by accessing CAS at http://miami. transfer.org/cas/index.jsp.

## Planning/Student Responsibilities

If you are seeking an AA or AS degree, you should plan your program at Clark State according to the requirements of the transfer institution. If you begin your academic career at Clark State in an Applied Business or Applied Science (AAB or AAS) degree program, you may not receive transfer credit for many of the technical courses within those programs, either for the AA/AS at Clark State or for a major at a fouryear college or university.

Here are specific guidelines of student responsibilities to assure maximum transferability of credits:

- You need to determine the four-year college or university to which you will transfer and your prospective major as early as possible in your academic program.
- You should request a catalog from the prospective transfer institution early and become familiar with its admissions policies, scholarship options/deadlines and degree requirements.
- Generally, you'll receive credit for most of your courses at the transfer institutions if you have worked carefully with Clark State advisors and with personnel at the prospective transfer institutions. The transfer institutions, however, will make the final determinations.
- You will need a minimum of 92 credit hours that clearly meet Clark State's degree requirements to graduate with an AA or AS.
- It is your responsibility to work with an advisor and sign up for appropriate courses each quarter.


## Transfer Module

The Ohio Board of Regents Transfer and Articulation Policy established the Transfer Module, which is a specific subset or the entire set of a college or university's general education requirements. The Transfer Module contains 54-60 quarter hours* or 36-40 semester hours of specified course credits in English composition, mathematics, communications, fine arts, humanities, social science, behavioral science, natural science, physical science and interdisciplinary coursework.

- A Transfer Module completed at one college or university will automatically meet the requirements of the Transfer Module at the receiving institution once you are accepted. You may be required, however, to meet additional gen-
eral education requirements that are not included in the Transfer Module.
* The Transfer Module refers to credit hours as quarter hours.


## Conditions for Transfer Admission

Students meeting the requirements of the Transfer Module are subject to the following conditions:

- The policy encourages receiving institutions to give preferential consideration for admission if you complete the Transfer Module and either the Associate of Arts or the Associate of Science degrees. You will be able to transfer all courses in which you received a passing grade of "C" or better. You must have an overall grade point average of 2.0 to be given credit for the Transfer Module.
- The policy also encourages receiving institutions to give preferential consideration for admission if you complete the Transfer Module with a "C" or better in each course and 90 quarter hours or 60 semester hours. You must have an overall grade point average of 2.0 to be given credit for the Transfer Module and only courses in which a "C" or better has been earned will transfer.
- The policy encourages receiving institutions to admit on a non-preferential consideration basis students who complete the Transfer Module with a grade of "C" or better in each course and fewer than 90 quarter hours or 60 semester hours. You will be able to transfer all courses with grade of " C " or better.
- Admission to an institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors or fields of concentration at that institution. Once admitted, you follow the same regulations governing applicability of catalog requirements as all other students, such as higher GPAs required for admission into specific colleges or programs. Furthermore, transfer students have the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be successfully completed at the receiving institution prior to the granting of a degree.


## Transfer Appeals Process

If you disagree with the application of transfer credit by the receiving institution, you have the right to appeal the decision. Each institution is required to make its appeals process available to you.

If your appeal is denied by the institution after all appeal levels within the institution have been exhausted, the college will advise you in writing of the availability and process of appeal to the state level Articulation and Transfer Appeals Review Committee.

The Appeals Review Committee will 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.

See Transfer Credits on page 145 for Clark State's policy on the transfer and appeals process

## Transfer Module

The Transfer Module consists of 54 quarter hours of introductory courses in the following listing. You should follow the directions when selecting courses for the Transfer Module:

- Select courses to fulfill the minimum requirements in each section below.
- Complete the remaining hours of the Transfer Module by selecting additional courses listed in any of the sections to total the 54 quarter hours required for the Transfer Module.
(Note: Be sure to check with your academic advisor to ensure that the courses selected are appropriate for the major and the transfer institution selected and that they are consistent with the minimum graduation requirements of this institution. Also, check the college catalog for any prerequisites required.)
- Please note that Clark State students completing the AA or AS degree requirements will have satisfied this Transfer Module (unless program articulation agreements signed by other colleges and universities dictate otherwise).


## English Composition

Complete ENG 111 and ENG 112.
COM 111 Interpersonal Communication 3
COM 121 Effective Speaking 3
ENG 111 English I 4
ENG 112 English II 4
ENG 221 Business Communications 3
ENG 223 Technical Report Writing 3
ENG 225 Creative Writing 3
ENG 227 Intermediate Composition 3

## Mathematics

Complete a minimum of three quarter hours chosen from:
MTH 105 Mathematics and Today's World 3
MTH 120 College Algebra IA 5
MTH 121 College Algebra I 3
MTH 122 College Algebra II 3
MTH 140 Trigonometry 3
$\begin{array}{ll}\text { MTH } 220 & \text { Calculus for the Management, } \\ \text { Life and Social Sciences }\end{array}$
MTH 221 Calculus I 5
MTH 222 Calculus II 5
MTH 223 Calculus III 5
MTH 224 Calculus IV 5
MTH 230 Differential Equations 5
MTH 240 Linear Algebra 3
STT 264 Statistics I 4
STT 265 Statistics II 4

Arts and Humanities
Complete nine quarter hours by choosing either: six quarIntroduction ter hours from category $A$ and three quarter hours from category B or three quarter hours from category $A$ and six quarter hours from category B.

## Category A

ART 130 Appreciation of the Arts 3
ART 133 Art History I 3
ART 134 Art History II 3
ART 135 Art History III 3
ART 138 Arts of Africa 3
ENG 130 Introduction to Literature 3
ENG 230 Great Books: World Literature 3
ENG 231 Great Books of World Literature: Honors 3
ENG 241 Poetry 3
ENG 243 Fiction 3
ENG 245 Drama 3
ENG 250 American Literature 3
ENG 261 British Literature to 17003
ENG 262 British Literature 1700-Present 3
THE 105 Oral Interpretation of Literature 3
THE 130 Introduction to Theatre 3
THE 270 Theatre History I
4
THE 271 Theatre History II
4

## Category B

HST 111 Western Civilization 3
through the 14th Century 3
HST 112
Western Civilization from the 14th to the 18th Century

3
HST 113 Western Civilization from the 19th Century to the Present
HST 114 Western Civilization to the 14th
Century: Honors
HST 121 American History to 18103
HST 122 American History 1810-1900 3
HST 123 American History 1900-Present 3
PHL 110 Problems in Philosophy 3
PHL 111 Problems in Philosophy: Honors 3
PHL 200 Critical Thinking 3
PHL 205 Deductive Logic 3
PHL 210 Ethics 3
PHL 220 Business Ethics 3
PHL 230 Medical Ethics 3
PHL 240 Philosophy of World Religions 3
PHL 250 Great Books: Philosophy 3

## Social and Behavioral Sciences

Complete nine quarter hours chosen from at least two different subject areas from among the following:

ECO 110
General Economics
ECO 221 Principles of Macroeconomics
ECO 222 Principles of Microeconomics 3
GEO 110 World Human Geography 3
GEO 220 World Regional Geography 3
PLS 110 American National Government 3
PLS 120 American Issues 3
PLS 130 Political Issues 3
PLS 220 Constitutional Law 3
PSY 111 Psychology I ..... 3
PSY 112 Psychology II ..... 3
PSY 221 Human Growth \& Development I ..... 3
PSY 222 Human Growth \& Development II ..... 3
PSY 230 Abnormal Psychology ..... 3
RST 260 Regional Studies: China ..... 3
RST 262 Regional Studies: India ..... 3
RST 270 Regional Studies: Africa ..... 3
RST 280 Regional Studies: Latin America ..... 3
SOC 110 Sociology ..... 3
SOC 140 Marriage and Family ..... 3
SOC 220 Comparing Cultures ..... 3
SOC 230 Social Problems ..... 3
SOC 240 Racial and Cultural Minorities ..... 3

## Natural and Physical Sciences

Complete one three-course sequence in the same science chosen from the sequences with asterisks or complete three courses from three separate content areas.
BIO 110 Fundamentals of Human Biology ..... 4
*BIO 143 Cell Biology/Genetics ..... 5
BIO 141 Evolution, Diversity and Ecology ..... 5
BIO 142 The Human Organism ..... 5
*BIO 121 Anatomy \& Physiology I ..... 4
BIO 122 Anatomy \& Physiology II ..... 4
BIO 123 Anatomy \& Physiology III ..... 4
BIO 131 Microbiology ..... 4
BIO 140 Plant Science ..... 4
CHM 110 Fundamentals of Chemistry ..... 5
CHM 114 Intro to General Chemistry Review ..... 4
CHM 115 Intro to General Chemistry ..... 5
CHM 116 Intro to Organic Chemistry ..... 5
*CHM 121 General Chemistry I ..... 5
CHM 122 General Chemistry II ..... 5
CHM 123 General Chemistry III ..... 5
CHM 211 Organic Chemistry I ..... 5
CHM 212 Organic Chemistry II ..... 5
CHM 213 Organic Chemistry III ..... 5
*GLG 131 Physical Geology ..... 5
GLG 132 Historical Geology ..... 5
GLG 133 Environmental Geology ..... 5
GLG 121 Meteorology ..... 4
PHY 105 Fundamentals of Scientific Methods ..... 3
PHY 110 Fundamentals of Physics ..... 5
*PHY 111 Technical Physics I ..... 4
PHY 112 Technical Physics II ..... 4
PHY 113 Technical Physics III ..... 4
PHY 120 Astronomy ..... 4
*PHY 250 General Physics I ..... 6
PHY 251 General Physics II ..... 5
PHY 252 General Physics III ..... 5


## Degree Programs

Clark State offers more than 50 associate degree and certificate programs. Interested in transferring to a four-year college or university? Check out our Associate of Arts and Associate of Science programs.

## Program Index

## Accounting

- Accounting
- Accounting Certificate


## Agriculture

- Agricultural Business
- Agriculture Engineering Technology Option
- Horticulture Industries
- Golf Course Operations Option
- Landscape Design Option
- Parks and Recreation Operations Option
- Nursery Operations Option
- Turf and Landscape Operations Option
- Agriculture Departmental Certificates
- Agriculture Equipment Certificate
- Landscape Design Certificate
- Parks and Recreation Operations Certificate
- Agriculture Pest Certificate
- Turf Certificate


## Associate of Arts <br> Associate of Science

Computer Networking

- Computer Networking
- Advanced Computer Networking Option
- CyberSecurity Specialist Option
- Technical Systems Support Option
- Computer Networking Departmental Certificates
- Network Administration Certificate
- Network Infrastructure Certificate
- Oracle Database Management Certificate
- Security-Wireless Certificate
- Technical Support Certificate


## Computer Software Development

- Computer Software Development
- Computer Software Development Departmental Certificates
- Computer Software Development/Programming Certificate
- Microsoft Database Administration/Programming Certificate
- Microsoft Database Administration/Networking Certificate
- Systems Analysis Certificate
- Web Services Certificate


## Criminal Justice

- Basic Peace Officer Academy
- Corrections
- Criminal Justice Technology


## Early Childhood Education

- Early Childhood Education
- Early Childhood Education Administration Option
- Early Childhood Education Departmental Certificates
- Early Childhood Administration Certificate
- Early Literacy Development Certificate


## Early Elementary Paraprofessional

- Early Elementary Paraprofessional


## Emergency Medical Services

- Emergency Medical Services
- Emergency Medical Services Departmental Certificates
- EMT-Basic Certification
- EMT-Intermediate Certification
- Paramedic Certification
- Paramedic Certification for Registered Nurses


## Engineering Technologies

- Computer-Aided Design Technology
- Engineering Transfer
- Industrial Technology
- Manufacturing Engineering Technology
- Mechanical Engineering Technology Option
- Computer-Aided Design (CAD) Certificate
- Electrical Maintenance Certificate
- Electronics Certificate
- Manufacturing Certificate


## Graphic Design

- Graphic Design


## Paralegal

- Paralegal Technology


## Management

- Management Technology
- CyberSecurity Management Option
- Human Resource Management Option
- Logistics and Supply Chain Management Option
- Marketing and E-Business Option
- Management Certificate
- Management Departmental Certificates
- Customer Service Certificate
- Human Rsource Management Certificate
- Logistics and Supply Chain Management Certificate
- Marketing E-Business Certificate
- Small Business Certificate
- Supervisory Certificate


## Medical Laboratory

- Medical Laboratory Technology


## Multi-Skilled Health Care

- Multi-Skilled Health Care Certificate
- Health Care Departmental Certificates
- Electrocardiography
- Nurse Aide
- Patient Care Technician
- Phlebotomy


## Nursing

- Nursing Transition LPN to RN
- Practical Nursing Certificate
- Registered Nursing
- Registered Nursing - Evening


## Office Administration

- Professional Office Administration
- Medical Office Administration Major
- Office Administration Certificate
- Office Administration Departmental Certificates
- Communications Certificate
- Machine Transcription Certificate
- Medical Coding Certificate
- Medical Transcription Certificate


## Photography

- Photography Certificate


## Physical Therapy

- Physical Therapist Assistant


## Realtime Reporting

- Judicial Reporting
- Broadcast Captioning/CART Option


## Social Services

- Social Services
- Social Services Departmental Certificate
- Chemical Dependency


## Theatre Arts

- Theatre Arts
- Performance Theatre Option
- Technical Theatre Option
- Theatre Arts Departmental Certificate
- Arts Administration Departmental Certificate


## Accounting

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Accounting Technology

Accountants compile and analyze business transactions and prepare financial reports such as income statements, balance sheets, statement of cash flows, cost studies and tax reports. The major fields are public, management and governmental accounting. Accountants in any field may work in such areas as general accounting, auditing, taxes, cost accounting, budgeting and control, information processing or systems and procedures.

Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

This program is available to both day and evening students. Students should consult with their advisor for the recommended sequencing of evening courses.

## Learning Outcomes

Upon completion of an associate degree in Accounting, a graduate will be able to:

- perform basic accounting functions in an established accounting system.
- apply generally accepted accounting principles as they relate to recording, measuring and communicating financial information.
- prepare financial reports for internal and external use.
- use microcomputer accounting software to perform necessary accounting functions for a profit-making enterprise.
- calculate amounts for and prepare fundamental individual federal, state and local tax returns.
- calculate amounts for and prepare fundamental business federal, state and local returns.
- record, analyze and use cost information for job order and process cost systems.
- apply accounting principles related to governmental and not-for-profit entities.


## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

## Fall

ACC 111 Principles of Accounting I 4
COM 121 Effective Speaking 3
ENG 111 English I 4
ITS 103 Information Technology Basics 3
MGT 105 Contemporary American Business 3

## Winter

ACC 112 Principles of Accounting II
ENG 112 English II or
ENG 135 Business Report Writing* 4
ITS 12S Beginning Spreadsheet 1
MGT 112 Principles of Business Management 4
MGT 260 Legal Environment of Business

## Spring

ACC 113 Principles of Accounting III 4
ACC 120 Microcomputer Accounting Systems 4
ENG 221 Business Communications 3
MTH 106 Business Mathematics 3

-     - Social Science Elective*** 3


## Fall

ACC 205 Spreadsheet Accounting 4
ACC 211 Intermediate Accounting I 4
ACC 221 Tax Accounting I 4
ITS 12D Beginning Database 1
MGT 266 Quantitative Business Methods 4

## Winter

ACC 212 Intermediate Accounting II 4
ACC 222 Tax Accounting II 4
ECO 221 Principles of Macroeconomics 3
MGT 270 Business Finance** 4

- Humanities/Social Science Elective*** 3


## Spring

ACC 213 Intermediate Accounting III 4
ACC 233 Cost Accounting 4
ACC 250 Government and Non-Profit Accounting 4
ECO 222 Principles of Microeconomics 3

- Humanities/Social Science Elective*** 3

Total credit hours
*ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.
**The following co-op experiences may be substituted for MGT 270: EBE 100 plus EBE 282.
***ECO 110 is not acceptable for a social science elective; at least one humanities or one social science elective must be designated as a global awareness (GA) course.

## Accounting Certificate

Accounting, long referred to as the "language of business," is an excellent foundation for any type of office position. Most managerial positions require an understanding of accounting. This program provides the basic courses that teach fundamentals of recording business transactions, the balance sheet, the income statement, basic cost accounting concepts/entries and individual taxes. Courses are applicable to the associate degree program.

Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

| Course | Course | Credit |
| :---: | :---: | :---: |
| Number | Title | Hours |
| Fall |  |  |
| ACC 111 | Principles of Accounting I | 4 |
| ACC - | Accounting Elective* | 4 |
| ENG 111 | English I | 4 |
| ITS 103 | Information Technology Basics | 3 |
| MGT 105 | Contemporary American Business | 3 |
| Winter |  |  |
| ACC 112 | Principles of Accounting II | 4 |
| COM 121 | Effective Speaking | 3 |
| ENG 112 | English II or |  |
| ENG 135 | Business Report Writing** | 4 |
| ITS 12S | Beginning Spreadsheet | 1 |
| MGT 260 | Legal Environment of Business | 3 |
| Spring |  |  |
| ACC 113 | Principles of Accounting III | 4 |
| ACC 120 | Microcomputer Accounting Systems | 4 |
| ACC 205 | Spreadsheet Accounting | 4 |
| ENG 221 | Business Communications | 3 |
| MTH 106 | Business Mathematics | 3 |
|  | Total credit hours | 51 |
| *Any accou <br> **ENG 13 <br> transfer as | hting course not already prescribed. , Business Report Writing, will not nece he equivalent of ENG 112, English II | cessar |

## Fall

ACC 111 Principles of Accounting I 4
ACC - Accounting Elective* 4
ENG 111 English I 4
ITS 103 Information Technology Basics 3
MGT 105 Contemporary American Business 3
Winter
ACC 112 Principles of Accounting II 4
COM 121 Effective Speaking 3
ENG 112 English II or
ENG 135 Business Report Writing** 4
ITS 12S Beginning Spreadsheet 1
MGT 260 Legal Environment of Business 3
Spring
ACC 113 Principles of Accounting III 4
ACC 120 Microcomputer Accounting Systems 4
ACC 205 Spreadsheet Accounting 4
ENG 221 Business Communications 3
MTH 106 Business Mathematics 3
Total credit hours 51
*Any accounting course not already prescribed.
ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.

## Agriculture Technologies <br> Agricultural Business

The Agricultural Business program emphasizes preparation for agriculture service industry occupations. Courses are offered in soil science, animal science, weed and pest management, sales, business management, marketing and economics. The curriculum is designed to prepare students for employment in the business world of agriculture sales and service. Graduates of this program will find technical and entry-level management positions in crop care companies, feed and livestock product companies and many other businesses that serve the producer with goods and services.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisor for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Agricultural Business or Agriculture Engineering Technologies, a graduate will be able to:

- identify plant nutrient deficiencies and describe corrective measures.
- develop a written agricultural business plan.
- locate current information in solving technical and critical thinking problems.
- demonstrate effective employability skills.
- demonstrate basic sales principles.
- identify major plant pests, including weeds, insects and diseases (Ag Business).
- weld using basic arc welding and oxy-acetylene welding techniques (Ag Engineering).
- demonstrate basic trouble shooting and maintenance skills for small gas engines (Ag Engineering).


## Scholastic Preparation

High school chemistry, biology, geometry, algebra and keyboarding skills are strongly recommended.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

$\begin{array}{ll}\text { AGR } 104 & \begin{array}{l}\text { Agricultural Survey and } \\ \text { Employment Skills }\end{array}\end{array}$
AGR 150 Soil Science 4
AGR - Ag Elective* 3
ENG 111 English I 4
$\begin{array}{ll}\text { ENT } 121 & \text { Computer Basics for Applied } \\ & \text { Technology }\end{array}$
Winter
AGR 108 Technical Math for Agriculture 3
AGR 151 Soil Fertility 4
BIO 140 Plant Science 4
ENG 112 English II
Social Science Elective
4
3

Spring
AGR 19B Agribusiness Co-op Experience I 4

## Summer

AGR 109 Animal Agriculture 4
COM 121 Effective Speaking 3
Fall
AGR 122 Plant Pests 4
AGR 174 Agribusiness Principles 3
AGR 214 Crop Production 4
ACC 111 Principles of Accounting I 4

- Humanities/Social Science Elective (GA)


## Winter

AGR 105 Principles of Ag Sales I 3
AGR 253 Pest Management 5
AGR 284 Agribusiness Management 4
AGR - Ag Elective* 3
ENG 223 Technical Report Writing 3
Spring
AGR 106 Principles of Ag Sales II 3
AGR 206 Agribusiness Marketing 3
AGR 262 International Ag Trade 3
AGR 295 Agriculture Capstone Seminar 3
ECO - ECO 110 or ECO 221 or ECO 2223

- Humanities/Social Science Elective 3

Total credit hours 100
*AGR electives may be any AGR course not required above. Suggested courses include: AGR 115 Welding, AGR 187 Small Gas Engines, AGR 29B Agribusiness Co-op Experience II, AGR 245 Advanced Welding, AGR 252 Equipment Maintenance, INT 120 Hydraulic/Pneumatics I or INT 150 Electrical Systems. Other course work may be approved by the division.

## Agricultural Engineering Technologies Option

Powered equipment maintenance, facility maintenance and construction and hardscape construction are emphasized leading to careers with a mechanical emphasis in the agricultural industry.

## Course

Number
Course

Fall
AGR 104 Agricultural Survey and Employment Skills
AGR 150 Soil Science 4
AGR 187 Small Gas Engines 4
ENG 111 English I 4
ENT 121 Computer Basics for Applied Technology

## Winter

AGR 108 Technical Math for Agriculture 3
AGR 115
Welding
AGR 151 Soil Fertility 4
COM 121 Effective Speaking
ENG 112 English II

## Spring

AGR 219 Landscape Construction 4
AGR 224 Irrigation Systems 3
ENT 205 Circuits and Machines 4

-     - Humanities/Social Science Elective (GA)

Summer
AGR 19E Agriculture Engineering Co-op Experience I

Fall
AGR 174 Agribusiness Principles 3
AGR 225 Landscape Maintenance 4
AGR - Ag Elective 3
ENG 223 Technical Report Writing 3
INT 120 Hydraulics/Pneumatics I 4

## Winter

AGR 105 Principles of Ag Sales I 3
AGR 252 Equipment Maintenance and Operation 4
AGR 284 Agribusiness Management 4
INT 170 Mechanical Maintenance 4 Social Science Elective 3

## Spring

AGR 106 Principles of Ag Sales II 3
AGR 245 Advanced Welding 4
AGR 295 Agriculture Capstone Seminar 3
INT 125 Hydraulic/Pneumatics II 4

-     - 

Humanities/Social Science Elective
3
Total credit hours
*AGR electives may be any AGR course not required above.
Suggested courses include: AGR 29E Ag Engineering Co-op

Experience II, AGR 122 Plant Pests or INT 150 Electrical Systems. Other course work may be approved by the division.

## Horticultural Industries

The Horticultural Industries program provides basic preparation for careers in the landscape and turfgrass industries. The campus grounds, including a greenhouse facility and a onehole golf course, act as a working laboratory to give students practical training. Clark State students can specialize in areas of golf course maintenance, nursery operations, landscape design, parks and recreation or turf and landscape maintenance.

These program schedules are designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisor for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Horticultural Industries, a graduate will be able to:

- identify plant nutrient deficiencies and describe corrective measures.
- identify major plant pests, including weeds, insects and diseases.
- develop a written agricultural business plan.
- locate current information in solving technical and critical thinking problems.
- demonstrate effective employability skills.
- identify common landscape and herbaceous plant materials.
- demonstrate the proper care of established plants in the landscape.


## Scholastic Preparation

High school chemistry, biology, geometry, algebra and keyboarding skills are strongly recommended.

Humanities/Social Science Electives
A complete listing of humanities and social science electives begins on page 5 .

## Golf Course Operations Option

Turf science and landscape maintenance as they apply to maintaining the golf course are emphasized, leading to a career in the golf course industry.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| AGR 104 | Agricultural Survey and <br>  <br> Employment Skills | 3 |
| AGR 133 | Turf Science | 3 |
| AGR 150 | Soil Science | 4 |
| AGR 187 | Small Gas Engines | 4 |
| ENG 111 | English I | 4 |

## Winter

AGR 108 Technical Math for Agriculture 3
AGR 151 Soil Fertility 4
BIO 140 Plant Science 4
ENG 112 English II 4
ENT 121 Computer Basics for Applied Technology3

## Spring

AGR 19G Golf Course Co-op Experience I 3
AGR 224 Irrigation Systems 3

- $\quad$ Humanities/Social Science Elective (GA) 3


## Summer

AGR 29G Golf Course Co-op Experience II 3
COM 121 Effective Speaking 3

-     - Humanities/Social Science Elective


## Fall

AGR 122 Plant Pests 4
AGR 143 Landscape Plant Materials 4
AGR 174 Agribusiness Principles 3
AGR 225 Landscape Maintenance 4
AGR 236 Turfgrass Management 3

## Winter

AGR 253 Pest Management 5
AGR 252 Equipment Maintenance and Operation 4
AGR 284 Agribusiness Management 4
ACC 111 Principles of Accounting I 4

## Spring

AGR 145 Herbaceous Plant Materials 4
AGR 219 Landscape Construction 4
AGR 295 Agriculture Capstone Seminar 3
ENG 223 Technical Report Writing 3

- Social Science Elective 3

Total credit hours 106

## Landscape Design Option

Landscape plant materials, drafting and computer-aided design are emphasized leading to a career in landscape design.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | :--- |
| Fall |  |  |
| AGR 104 | Agricultural Survey and | 3 |
|  | Employment Skills | 4 |
| AGR 143 | Landscape Plant Materials | 4 |
| AGR 150 | Soil Science | 3 |
| DFT 101 | Drafting I | 4 |

## Winter

AGR 108 Technical Math for Agriculture 3
AGR 151 Soil Fertility 4
AGR 226 Landscape Design 4
BIO 140 Plant Science 4
ENT $121 \begin{array}{ll}\text { Computer Basics for Applied } \\ \text { Technology }\end{array}$
Spring
AGR 145 Herbaceous Plant Materials 4
AGR 19L $\begin{aligned} & \text { Landscape Design Co-op } \\ & \text { Experience I }\end{aligned}$
ENG 112 English II 4
Summer
$\begin{array}{ll}\text { AGR 29L } & \text { Landscape Design Co-op } \\ \text { Experience II }\end{array}$

-     - Humanities/Social Science Elective (GA)


## Fall

AGR 122 Plant Pests 4
AGR 174 Agribusiness Principles 3
AGR 225 Landscape Maintenance 4
COM 121 Effective Speaking 3
ENG 223 Technical Report Writing 3
Winter
AGR 105 Principles of Ag Sales I 3
AGR 284 Agribusiness Management 4
AGR 297 Landscape Design II 4
DFT 211 Computer-Aided Design 4
Spring
AGR 219 Landscape Construction 4
AGR 287 Computer-Aided Landscape Design 4
AGR 295 Agriculture Capstone Seminar 3

- Social Science Elective 3
- Humanities/Social Science Elective 3

$$
\text { Total credit hours } 102
$$

## Nursery Operations Option

Landscape plant materials, landscape installation and landscape plant production are areas emphasized leading to careers in the garden center and nursery industries.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| AGR 104 | Agricultural Survey and <br> Employment Skills | 3 |
| AGR 143 | Landscape Plant Materials | 4 |
| AGR 150 | Soil Science | 4 |
| ENG 111 | English I | 4 |
| ENT 121 | Computer Basics for Applied <br>  <br>  <br> Technology |  |

Winter
AGR 108 Technical Math for Agriculture 3
AGR 151 Soil Fertility
AGR 226 Landscape Design I 4
AGR - Ag Elective* 3
BIO 140 Plant Science 4

## Spring

AGR 145 Herbaceous Plant Materials 4
AGR 19N Nursery Operations Co-op
Experience I
ENG 112 English II 4
Summer
AGR 29N Nursery Operations Co-op

- Humanities/Social Science Elective (GA)

Fall
AGR 122 Plant Pests 4
AGR 174 Agribusiness Principles 3
AGR 225 Landscape Maintenance 4
ACC 111 Principles of Accounting I 4
COM 121 Effective Speaking
Winter
AGR 105 Principles of Ag Sales I 3
AGR 231 Plant Propagation 4
AGR 253 Pest Management 5
AGR 284 Agribusiness Management 4
Spring
AGR 219 Landscape Construction 4
AGR 295 Agriculture Capstone Seminar 3
ENG 223 Technical Report Writing 3

- Science Elective 3
- Humanities/Social Science Elective 3

Total credit hours
*AGR electives may be any AGR course not required above. Suggested courses include: AGR 224 Irrigation Systems, AGR 252 Equipment Maintenance, AGR 297 Landscape Design II or INT 150 Electrical Systems. Other course work may be approved by the division.

## Parks and Recreation Operations Option

Tree and shrub identification, landscape maintenance turf science and communication skills are emphasized leading to careers in the parks and recreational industry.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| AGR 104 | Agriculture Survey \& | 3 |
|  | Employment Skills | 3 |
| AGR 133 | Turf Science | 4 |
| AGR 150 | Soil Science | 3 |
| DFT 101 | Drafting I | 4 |

## Winter

AGR 108 Technical Math for Agriculture 3
AGR 151 Soil Fertility 4
BIO 140 Plant Science 4
ENG 112 English II 4
$\begin{array}{ll}\text { ENT } 121 & \begin{array}{l}\text { Computer Basics for } \\ \text { Applied Technology }\end{array}\end{array}$
Spring
AGR 145 Herbaceous Plant Materials 4
AGR 19P Parks \& Rec. Co-op Exp I 3
Summer
AGR 29P Parks and Rec. Co-op Exp II 3
COM 111 Interpersonal Communication 3
COM 121 Effective Speaking 3
Fall
AGR 122 Plant Pests 4
AGR 143 Landscape Plant Materials 4
AGR 174 Agribusiness Principles 3
AGR 225 Landscape Maintenance 4
AGR 236 Turfgrass Management 3
Winter
AGR 253 Pest Management 5
AGR 252 Equipment Maintenance \& Operation 4
AGR 284 Agribusiness Management 4
ENG 223 Technical Report Writing 3
Spring
AGR 219 Landscape Construction 4
AGR 295 Agriculture Capstone Seminar 3
ACC 111 Principles of Accounting I 4
Humanities/Social Science Elective 3
Social Science Elective 3

Total credit hours 102

## Turf and Landscape Operations Option

Turfgrass science and turf management as well as landscape maintenance are emphasized leading to careers in the lawn care and landscape maintenance industries.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

$\begin{array}{ll}\text { AGR } 104 & \begin{array}{l}\text { Agricultural Survey and } \\ \text { Employment Skills }\end{array}\end{array}$
AGR 133 Turf Science 3
AGR 150 Soil Science 4
ENG 111 English I 4
ENT 121 Computer Basics for Applied Technology

Winter
AGR 108 Technical Math for Agriculture 3
AGR 151 Soil Fertility 4
BIO 140 Plant Science 4
COM 121 Effective Speaking 3
ENG 112 English II 4
Spring
AGR 145 Herbaceous Plant Materials 4
AGR 19T Turf and Landscape
Co-op Experience I 3

Summer
AGR 29T Turf and Landscape Co-op Experience II 3
ENG 223 Technical Report Writing 3

- Humanities/Social Science Elective (GA) 3


## Fall

AGR 122 Plant Pests 4
AGR 143 Landscape Plant Materials 4
AGR 174 Agribusiness Principles 3
AGR 225 Landscape Maintenance 4
AGR 236 Turfgrass Management 3

## Winter

AGR 105 Principles of Ag Sales I 3
AGR 252 Equipment Maintenance and Operation 4
AGR 253 Pest Management
5
AGR 284 Agribusiness Management 4
Spring
AGR 219 Landscape Construction 4
AGR 295 Agriculture Capstone Seminar 3
ACC 111 Principles of Accounting I 4

- Social Science Elective 3
- Humanities/Social Science Elective 3

Total credit hours 102

## Agriculture Departmental <br> Certificates

## Agricultural Equipment Certificate

This certificate provides skills in a variety of areas necessary to begin a successful career in the Agricultural Equipment career field.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FALL |  |  |
| AGR 187 | Small Gas Engines | 4 |
| AGR 225 | Landscape Maintenance | 4 |
| ENT 121 | Computer Basics for | 3 |
|  | Applied Technology | 4 |
| INT 120 | Hydraulics/Pneumatics I |  |
|  |  | 3 |
| WINTER |  | 4 |
| AGR 115 | Welding | 4 |
| AGR 252 | Equipment Maintenance and Operation | 4 |
| ENT 205 | Circuits and Machines | 4 |
| INT 170 | Mechanical Maintenance | 4 |
|  |  | 3 |
| SPRING |  | 4 |
| AGR 219 | Landscape Construction | 4 |
| AGR 224 | Irrigation Systems |  |
| AGR 245 | Advanced Welding | 45 |
| INT 125 | Hydraulics/Pneumatics II | 4 |

## Landscape Design Certificate

This certificate is designed for the landscape design technician. The course work will provide a foundation for entry into the landscape design career field.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FALL |  |  |
| AGR 122 | Plant Pests | 4 |
| AGR 143 | Landscape Plant Materials | 4 |
| AGR 225 | Landscape Maintenance | 4 |
| DFT 101 | Drafting I | 3 |
|  |  |  |
| WINTER |  | 3 |
| AGR 105 | Principles of Ag Sales I | 4 |
| AGR 226 | Landscape Design |  |
| DFT 211 | Computer Aided Design | 4 |
| ENT 121 | Computer Basics for | 3 |
|  | Applied Technology |  |
| SPRING |  | 4 |
| AGR 145 | Herbaceous Plant Materials | 4 |
| AGR 219 | Landscape Construction |  |
| AGR 287 | Computer Aided Landscape Design | 4 |

## Parks and Recreation Operations

## Certificate

This certificate is designed for someone interested in a career in the parks and recreation career field. The course work is designed to provide skills and information to be successful in an entry level parks and recreation job.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## FALL

AGR 133 Turf Science 3
AGR 143 Landscape Plant Materials 4
AGR 150 Soil Science 4
AGR 225 Landscape Maintenance 4

WINTER
AGR 108 Technical Math for Agriculture 3
AGR 151 Soil Fertility 4
AGR 252 Equipment Maintenance \& Ops 4
ENT 121 Computer Basics for
Applied Technology 3
SPRING
AGR 145 Herbaceous Plant Materials 4
AGR 219 Landscape Construction 4
COM 111 Interpersonal Communication 3
COM 121 Effective Speaking 3
Total Credit hours 43

## Agricultural Pest Certificate

This certificate is designed to provide entry level skills and knowledge necessary to gain an Ohio pesticide applicators license.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

FALL
AGR 122 Plant Pests 4
AGR 133 Turf Science 3
ENT 121 Computer Basics for Applied Technology 3

WINTER
AGR 108 Technical Math for Agriculture 3
AGR 253 Pest Management 5
BIO 140 Plant Science 4

Total Credit hours 22

## Turf Certificate

This certificate is designed to provide the skills and knowledge to be successful in an entry level position in the turf industry.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FALL |  | 3 |
| AGR 133 | Turf Science | 4 |
| AGR 150 | Soil Science | 4 |
| AGR 225 | Landscape Maintenance |  |
| ENT 121 | Computer Basics for Applied Technology3 |  |
|  |  | 3 |
| WINTER |  | 4 |
| AGR 108 | Technical Math for Agriculture | 3 |
| AGR 151 | Soil Fertility |  |
| AGR 236 | Turfgrass Management | 28 |
| AGR 252 | Equipment Maintenance and Operation | 4 |
|  |  |  |

## Associate of Arts

Four-year colleges and universities generally require that students spend a significant portion of their first two years taking courses that build their knowledge and skills in general education. A student with an AA degree may transfer these courses to a four-year institution. Of the 92 credit hours necessary to earn an AA degree at Clark State, a minimum of 59 credit hours must come from areas 1-6 in the outline of degree requirements. The AA/AS degree focuses on courses in the liberal arts and sciences.

The remaining credit hours are divided among courses in the student's area of concentration, elective courses and the Capstone Seminar. All entering students must take the Capstone Seminar in order to complete the AA degree.

The courses in the area of concentration as well as the electives should be directed toward the student's major at the transfer institution. These courses must be selected very carefully, following the recommendations of the transfer institution. Of the 30 hours of coursework in these two categories, no more than 15 should be selected from technical/career programs unless indicated in a curriculum guide or planned with an advisor with the division dean's approval.

Transfer institutions make the determination in acceptance of credit. The student should consult his/her academic advisor and the intended transfer institution when planning a schedule of classes. With careful scheduling and advising, a student should be able to transfer with junior standing, especially within the state of Ohio.

## Learning Outcomes

Upon completion of an associate degree in Associate of Arts, a graduate will be able to:

- write clearly and accurately in a variety of contexts and formats.
- speak clearly and accurately in a variety of contexts and formats.
- work effectively in teams.
- use critical thinking and problem solving to draw logical conclusions.
- articulate issues or concepts from diverse perspectives.


## Area 1 - English (8 credit hours)

A grade of C or better in ENG 111 English I and ENG 112 English II is required for graduation with the AA degree.

## Area 2 - Literature and the Arts (9 credit hours)

Three courses, at least one of which is chosen from Art (ART 130 Appreciation of the Arts or ART 133 Art History I, ART 134 Art History II or ART 135 Art History III), Theatre (THE 130 Introduction to Theatre, THE 270 Theatre History I or THE 271 Theatre History II) or Music (MUS 130 Music Appreciation); and at least one from those listed under English (other than English I and II, Technical Report Writing and Business Communications).

## Area 3 - Humanities (9 credit hours)

Three courses from those listed under History or Philosophy.

Area 4 - Social Sciences (15 credit hours)
Five courses from at least two different disciplines including courses listed under Economics, Geography, Political Science, Psychology, Sociology and Regional Studies.

## Area 5 - Mathematics and Computers ( 6 credit hours)

Two courses including one from those listed under Mathematics (in the Transfer Module) and one from Information Technology Systems (at least 3 credit hours).*

Area 6 - Natural Sciences (12-15 credit hours)
Two options are available; choose the one most suited to your transfer institution.

## Option 1

Take three courses, each from a different science area. (Possible classes include BIO 110, BIO 140, CHM 110, GLG 130, GLG 114, PHY 110 and PHY 120.)

## Option 2

Take a three-course sequence in Biology, Chemistry, Geology or Physics. (Possible sequences include BIO 143, 141, 142, BIO 121-123, CHM 121-123, PHY 111-113, PHY 250-252, GLG 131-132, 133)

## Concentration (15-20 credit hours)

These hours should be clearly transferable and count toward the major at the transfer institution. These classes relate to the major to be pursued at the four-year institution.*

## Electives (15-17 credit hours)

These hours should be clearly transferable and count toward the major at the transfer institution. These hours should be planned carefully with an advisor. These classes may be used to support those listed under concentration hours, fulfill additional general education requirements or serve as free electives at the four-year institution.*

## Global Awareness

In recognition of the growing importance of global awareness, the College also requires that students receiving the Associate of Arts degree take at least six courses with significant international content. Courses meeting the requirement begin on page 5 .

## Capstone Seminar

Effective Fall Quarter 2001, all new students entering the College for the first time pursuing either an AA or AS degree, are now required to take the Capstone Seminar (HUM 299). Students must have earned at least 60 credit hours prior to taking the course and must take the course for graduation. The course will assess student achievement of the specific AA/AS program goals.

Students enrolled in the College prior to Fall Quarter 2001 pursuing either an AA or AS degree can take the Capstone Seminar (HUM 299) and count the course as a Humanities elective toward graduation.

Total credit hours $=92$
*The number of credit hours and courses may vary with specific curriculum guides. Check with your advisor first.

## Associate of Arts

## Teacher Education Transfer Concentration

The Associate of Arts Teacher Education Transfer Concentration is designed for students who plan to transfer into a Teacher Education (Middle Child or Adolescent/Young Adult) program at a four-year college or university. Students interested In Early Childhood or Early Elementary Education should consider the AAS degree in Early Childhood Education. Students seeking an AA, Teacher Education Concentration should plan the details of the program at Clark State according to the requirements of the individual transfer institution. Some of the schools to which students may choose to transfer includes: the University of Dayton, Urbana University, Wittenberg University, Wright State University and Antioch University McGregor.

The program schedule that follows is designed for fulltime students who have completed necessary prerequisites and have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Also, some four-year colleges and universities may accept more or fewer classes than are indicated in the sample schedule. Students should consult their academic advisors and their intended transfer institutions for help in planning their schedules.

## Learning Outcomes

In addition to meeting the requirements and demonstrating the learning outcomes of the Associate of Arts degree, upon completion of the Teacher Education concentration, a graduate will be able to:

- demonstrate an understanding of child and human growth and development.
- promote child development and learning.
- display an appreciation and respect of diversity.


## Scholastic Preparation

Teacher Education students need a college-preparatory high school background. Four years each of English, mathematics, science and social studies is strongly recommended; foreign language is highly beneficial. Students with fewer classes in these areas may require college preparatory classes or other additional course work at Clark State.

## Degree Availability

Most classes for these concentrations are offered in the day and evening. Contact your academic advisor for course sequencing.

If you follow the recommended progression of courses listed below, most classes should transfer to most other institutions, but the transfer institutions make the final determinations in acceptance of credit.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| ENG 111 | English I | 4 |

PSY 111 Psychology I 3
PHL 200 Critical Thinking 3
ITS 103 Information Technology Basics 3

-     - Science*

4-5

Winter
ENG 112 English II 4
PSY 112 Psychology II 3
PHL 210 Ethics 3
ART 130 or Appreciation of the Arts or
THE 130 Introduction to Theatre

- Science* 4-5

Spring
COM 121 Effective Speaking 3
SOC 110 Sociology 3
PSY 221 Human Growth and Development 3

-     - 
- Concentration area elective,

EDU course, other elective**
4-5

Fall
ENG 230 Great Books
HST 111 or
HST 112 or
HST 113 Western Civilization
HST 121 or
HST 122 or
HST 123 American History 3

- Concentration area elective,

EDU course, other elective** 3-5
Concentration area elective,
EDU course, other elective**

## Winter

STT 264 Statistics I 4
HST 111 or
HST 112 or
HST 113 Western Civilization (different number from above)
HST 121 or
HST 122 or
HST 123 American History (different number from above)

3

- Concentration area elective,

EDU course, other elective**

- Concentration area elective,

EDU course, other elective**

## Spring

HUM 299 Capstone Seminar 3
PSY 222 Human Growth \& Development II 3

- Literature/Arts Elective *** 3
- Concentration area elective, EDU course, other elective **
- Concentration area elective, EDU course, other elective **
* Science classes chosen must meet either Option 1 or Option 2 in the AA degree, as listed on page XX. Select classes that are compatible with the degree plan at the intended transfer institution.
**Specific classes will vary, depending on the age (Middle Child or Adolescent/Young Adult) and subject area (Language Arts, Math, Science or Social Studies) of the concentration. EDU 110 Introduction to Education, EDU 216 Technology for Educators and EDU 217 Individuals with Exceptionalities are strongly recommended classes for most transfer institutions. Please check with the transfer institution for specific guidelines. Qualified students may have earned Tech Prep credit for EDU 110, 216 or 217.
*** Literature/Arts electives may be found under category A of the Arts and Humanities portion of the Transfer Module, as listed on page 8 .


## Associate of Arts

## Honors Concentration

The purpose of the Honors Concentration AA degree at Clark State is to offer courses and recognition to students who seek a more comprehensive approach to their studies, with a more in-depth analysis and evaluation of course content within a seminar-style class setting.

The Honors Concentration emphasizes the Associate of Arts CORE outcomes of Reading, Writing, Critical Thinking and Diverse Perspectives. Each Honors course will be designated as meeting part of the Global Awareness requirement.

## Requirements for graduation with Honors status:

1. Students must meet all requirements for the Associate of Arts degree.
2. Required Courses* (satisfy Arts \& Humanities category of the Transfer Module):

- ENG 231 Great Books of World Literature: Honors
- HST 114 Western Civilization to the 14th Century: Honors
- PHL 111 Problems in Philosophy: Honors

3. Elective courses* (must take 2 of 3)

- HON 291: Science and Religion
- HON 294: Science, Humanity, and Technology
- HON 292: Literature, Gender, and Humanism

4. Minimum grade of B required in each Honors course. Minimum overall GPA of 3.25 required.
5. Students must indicate their intent to graduate with Honors status when petitioning to graduate with an Associate of Arts degree.
*Prerequisites: HON and Honors sections of other courses are open to any student with a GPA of 3.25 who has successfully completed ENG 112.

## Associate of Science

Four-year colleges and universities generally require that students spend a significant portion of their first two years taking courses that build their knowledge and skills in general education. A student with an AS degree may transfer these courses to a four-year institution. Of the 92 credit hours necessary to earn an AS degree at Clark State, a minimum of 59 credit hours must come from areas 1-6 in the outline of degree requirements. The AA/AS degree focuses on courses in the liberal arts and sciences.

The remaining credit hours are divided among courses in the student's area of concentration, elective courses and the Capstone Seminar. All entering students must take the Capstone Seminar in order to complete the AS degree.
The courses in the area of concentration as well as the electives should be directed toward the student's major at the transfer institution. These courses must be selected very carefully, following the recommendations of the transfer institution. Of the 30 hours of coursework in these two categories, no more than 15 should be selected from technical/career programs unless indicated in a curriculum guide or planned with an advisor with the division dean's approval.

Transfer institutions make the determination in acceptance of credit. The student should consult his/her academic advisor and the intended transfer institution when planning a schedule of classes. With careful scheduling and advising, a student should be able to transfer with junior standing, especially within the state of Ohio.

## Learning Outcomes

Upon completion of an associate degree in Associate of Science, a graduate will be able to:

- write clearly and accurately in a variety of contexts and formats.
- speak clearly and accurately in a variety of contexts and formats.
- work effectively in teams.
- use critical thinking and problem solving to draw logical conclusions.
- articulate issues or concepts from diverse perspectives.


## Area 1-English (8 credit hours)

A grade of C or better in ENG 111 English I and ENG 112 English II is required for graduation with the AS degree.

## Area 2 - Literature and the Arts (6 credit hours)

Two courses, at least one of which is chosen from Art (ART 130 Appreciation of the Arts or ART 133 Art History I, ART 134 Art History II or ART 135 Art History III), Theatre (THE 105 Oral Interpretation, THE 130 Introduction to Theatre, THE 270 Theatre History I or THE 271 Theatre History II) or Music (MUS 130 Music Appreciation); and at least one from those listed under English (other than English I and II, Technical Report Writing and Business Communications).

Area 3 - Humanities ( 6 credit hours)
Two courses from those listed under History or Philosophy.

## Area 4 - Social Sciences ( 15 credit hours)

Five courses from at least two different disciplines including courses listed under Economics, Geography, Political Science, Psychology, Sociology and Regional Studies.

## Area 5 - Mathematics and Computers (12 credit hours)

Four courses including three from those listed under Mathematics (in the Transfer Module) and one from Information Technology Systems (at least 3 credit hours).*

## Area 6 - Natural Sciences (12-15 credit hours)

Two options are available; choose the one most suited to your major and the requirements of your transfer institution.

## Option 1

If you have chosen an AS major because of the mathematics requirement and not for the natural sciences, choose this option. Take three courses, each from a different science area. (Possible classes include BIO 110, BIO 132, BIO 133, BIO 140, CHM 110, GLG 110, GLG 120, PHY 110 and PHY 120.)

## Option 2

Choose this option if your major pertains to the natural sciences. Take a three-course sequence in Biology, Chemistry, Geology or Physics. (Possible classes include BIO 143, 141, 142, BIO 121-123, CHM 121-123, PHY 111-113, PHY 250-252, GLG 131-133.)

## Concentration (15-20 credit hours)

These hours should be clearly transferable and count toward the major at the transfer institution. These classes relate to the major to be pursued at the four-year institution.*

## Electives (15-17 credit hours)

These hours should be clearly transferable and count toward the major at the transfer institution. These hours should be planned carefully with an advisor. These classes may be used to support those listed under concentration hours, fulfill additional general education requirements or serve as free electives at the four-year institution.*

## Global Awareness

In recognition of the growing importance of global awareness, the College also requires that students receiving the Associate of Arts degree take at least six courses with significant international content. Courses meeting the requirement begin on page 5 .

## Capstone Seminar

Effective Fall Quarter 2001, all new students entering the College for the first time pursuing either an AA or AS degree, are now required to take the Capstone Seminar (HUM 299).

Students must have earned at least 60 credit hours prior to taking the course and must take the course for graduation. The course will assess student achievement of the specific AA/AS program goals.

Students enrolled in the College prior to Fall Quarter 2001 pursuing either an AA or AS degree, can take the Capstone Seminar (HUM 299) and count the course as a Humanities elective toward graduation.

Total credit hours $=92$
*The number of credit hours and courses may vary with specific curriculum guides. Check with your advisor first.

## Associate of Science

## Honors Concentration

The purpose of the Honors Concentration AS degree at Clark State is to offer courses and recognition to students who seek a more comprehensive approach to their studies with a more in-depth analysis and evaluation of course content within a seminar-style class setting.

The Honors Concentration emphasizes the Associate of Science CORE outcomes of Reading, Writing, Critical Thinking and Diverse Perspectives. Each Honors course will be designated as meeting part of the Global Awareness requirement.

## Requirements for graduation with Honors status:

1. Students must meet all requirements for the Associate of Science degree.
2. Required Courses* (satisfy Arts \& Humanities category of the Transfer Module):

- ENG 231 Great Books of World Literature: Honors
- HST 114 Western Civilization to the 14th Century: Honors
- PHL 111 Problems in Philosophy: Honors

3. Elective courses* (must take 2 of 3 )

- HON 291: Science and Religion
- HON 294: Science, Humanity, and Technology
- HON 292: Literature, Gender, and Humanism

4. Minimum grade of B required in each Honors course. Minimum overall GPA of 3.25 required.
5. Students must indicate their intent to graduate with Honors status when petitioning to graduate with an Associate of Science degree.
*Prerequisites: HON and Honors sections of other courses are open to any student with a GPA of 3.25 who has successfully completed ENG 112.

## Computer Networking

## Computer Networking

Information technology is one of the fastest-growing career fields today. The Computer Networking curriculum prepares students to plan, design, implement, troubleshoot and administer micro-computer-based networks. The curriculum allows students to customize their program by choosing areas of concentration during the second year. The areas of concentration can be found on the following page. Please discuss with your academic advisor which concentrations are best for meeting your career goals. This curriculum can assist students in preparing for the following certifications: CompTIA (A+, Network+, Linux+, Security+, Project+); Microsoft Certified Professional, Cisco Certified Network Associate and Oracle Certified Administrator.

Computer Networking students can increase their learning (and earning) potential by participating in the cooperative education work-experience program. Through this program, students can spend up to two quarters working in the information technology field while earning college credits. Interested students should contact their academic advisor.

The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Computer Networking, a graduate will be able to:

- demonstrate knowledge of computer terms and concepts.
- troubleshoot basic desktop and server hardware and operating system problems.
- install, manage and configure network operating systems. (Administration concentration)
- install, manage and configure database management systems. (Oracle Database concentration)
- implement LAN/WAN infrastructure technologies. (Infrastructure concentration)
- implement network security technologies. (CyberSecurity concentration)


## Scholastic Preparation

Computer Networking students need a high school algebra background equivalent to CPE 101 (Introduction to Algebra). Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

## Degree Availability

These programs are available during the day and evening. Contact your academic advisor about evening curriculum guides.

Humanities/Social Science Electives
A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

Number Title
Hours

## Fall

NTK 176 PC/Network Essentials I 6
ACC 111 Principles of Accounting I 4
MGT 105 Contemporary American Business 3
ENG 111 English I

Winter
NTK 178
ENG 112
PC/Network Essentials II
English II or
ENG 135 Business Report Writing****
MGT 200 Project Management

- Humanities/Social Science Elective (GA)


## Spring

NTK 179
ENG 221
PC Network Essentials III
6
Business Communications 3
ITS 12 S
Beginning Spreadsheet
Management/Marketing/
Accounting Elective***

- Social Science Elective 3

Fall
NTK - Concentration A, Course 1* 5
NTK - Concentration B, Course 1* 5
NTK - NTK/CSD or Co-op Elective(s) ** 5

-     - Humanities/Social Science Elective


## Winter

NTK
NTK - Concentration B, Course 2*
NTK - NTK/CSD or Co-op Elective(s)**
COM 121
Effective Speaking
CoM
Spring
NTK -
NTK - Concentration B, Course 3* 5
Concentration A, Course 3*
NTK - NTK/CSD/ITS or Co-op Elective(s)** 3
NTK 288 Advanced Networking Topics
Total credit hours

* Choose any two concentrations from CyberSecurity, Network Administration, Network Infrastructure, Oracle Database (see next page).
**NTK/CSD elective hours must total a minimum of 13 hours. Cooperative Education courses (EBE 100, EBE 282, EBE 283, EBE 284, EBE 292, EBE 293 and EBE 294) can be applied in place of NTK/CSD elective hours. ITS electives cannot include ITS 080, ITS 081.
***Any MGT, MKT or ACC course not already prescribed.
****ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.


# Concentrations for Computer Networking, Advanced Computer Networking Option, CyberSecurity Specialists Option and Technical Systems Support Option 

## Cyber Security Concentration:

This concentration focuses on preparing students to manage and implement computer and network-based security technologies. Designing, implementing and maintaining secure computer-based systems are components of this concentration.

## MGT 211 Cyber Security Management I

MGT 212 CyberSecurity Management II
Plus at least one of the following:
NTK 245 Cyber Security Management III 5

NTK 246 CyberSecurity - OS \& Networks 5
NTK 247 CyberSecurity - Firewall Technologies

## Network Administration Concentration:

This concentration focuses on preparing students for managing and maintaining desktop and server operating systems software. Installing, configuring and troubleshooting operating systems are components of this concentration.

$$
\begin{array}{lll}
\text { NTK 270 } & \text { Administering Microsoft Professional } & 5 \\
\text { NTK 272 } & \text { Administering Microsoft Server } & 5 \\
\text { NTK 240 } & \text { Linux/Unix Network Administration } & 5
\end{array}
$$

## Network Infrastructure Concentration

This concentration focuses on preparing students to implement and support the computer network infrastructure. Setting up and configuring routers and switches is a key component of this concentration.

$$
\begin{array}{lll}
\text { NTK } 201 & \text { Cisco Associate I } & 5 \\
\text { NTK } 202 & \text { Cisco Associate II } & 5
\end{array}
$$

NTK 203 Cisco Associate III

## Oracle Database Management Concentration:

This concentration focuses on preparing students to manage and maintain the Oracle Database software. Installing, configuring and implementing a database system are key components of this concentration.

NTK 255 Introduction to Oracle 5
NTK 256 Oracle Fundamentals I 5
NTK 257 Oracle Database Mining and Warehousing

## Advanced Computer Networking Option

Information technology is one of the fastest-growing career fields today. The Advanced Computer Networking curriculum prepares students to plan, design, implement,
troubleshoot and manage advanced networking technologies. The curriculum allows students to customize their program by choosing areas of concentration during the second year. The areas of concentration can be found on the page following the Computer Networking curriculum in this section. Students should discuss with their academic advisor which concentrations are best for meeting their career goals.

This curriculum can assist students in preparing for the following certifications: CompTIA (Linux+, Security+, Project+), Microsoft Certified Professional, Cisco Certified Network Associate and Oracle Certified Administrator.

Computer Networking students can increase their learning (and earning) potential by participating in the cooperative education work experience program. Through this program, students can spend up to two quarters working in the information technology field while earning college credits. Interested students should contact their academic advisor.

The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Advanced Computer Networking, a graduate will be able to:

- implement LAN/WAN infrastructure technologies.
- install, manage and configure network operating systems. (Administration concentration)
- install, manage and configure database management systems. (Oracle Database concentration)
- implement network security technologies. (CyberSecurity concentration)


## Prerequisite Requirements

Prior to selecting this program, students must demonstrate basic computer networking knowledge by meeting one of the following criteria:

- The student must have completed training in and/or passed two of the following certifications: A+, Network+, Server+, Linux+.
- The student must have completed training in and/or passed one of the following certifications: MCSA/MCSE, CNA/CNE or other intermediate/ advanced networking certification.
- The student must demonstrate equivalent work experience knowledge/skill.


## Scholastic Preparation

Advanced Computer Networking students need a high school algebra background equivalent to CPE 101 Introduction to Algebra. Students with little or no computer background should enroll in ITS 080 Computer Fundamentals as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102 Keyboarding/Word Processing.

## Degree Availability

These programs are available during the day and evening. Contact your academic advisor about evening curriculum guides.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :---: | :---: | :---: |
| Number | Title | Hours |
| Fall |  |  |
| NTK 201 | Cisco Associate I | 5 |
| ACC 111 | Principles of Accounting I | 4 |
| MGT 105 | Contemporary American Business | 3 |
| ENG 111 | English I | 4 |
| Winter |  |  |
| NTK 202 | Cisco Associate II | 5 |
| ENG 112 | English II or |  |
| ENG 135 | Business Report Writing*** | 4 |
| MGT 200 | Project Management | 4 |
| -- | Humanities/Social Science Elective | 3 |
| Spring |  |  |
| NTK 203 | Cisco Associate III | 5 |
| ENG 221 | Business Communications | 3 |
| ITS 12S | Beginning Spreadsheet | 1 |
| - - | Management/Marketing/ |  |
|  | Accounting Elective*** | 3 |
| -- | Social Science Elective | 3 |
| Fall |  |  |
| NTK - | Concentration A, Course 1* | 5 |
| NTK - | Concentration B, Course 1* | 5 |
| NTK - | NTK/CSD or Co-op Elective(s) ** | 5 |
| - - | Humanities/Social Science |  |
|  | Elective (GA) | 3 |
| Winter |  |  |
| NTK - | Concentration A, Course 2* | 5 |
| NTK - | Concentration B, Course 2* | 5 |
| NTK - | NTK/CSD or Co-op Elective(s)** | 5 |
| COM 121 | Effective Speaking | 3 |

## Spring

NTK - Concentration A, Course 3* 5
NTK - Concentration B, Course 3* 5
NTK - NTK/CSD/ITS or Co-op Elective (s)** 3
NTK 288 Advanced Networking Topics 5
Total credit hours
*Choose any two concentrations from CyberSecurity, Network Administration, Network Infrastructure, Oracle Database (see concentrations on earlier page).
**NTK/CSD elective hours must total a minimum of 13 hours. Cooperative Education courses (EBE 100, EBE 282, EBE 283, EBE 284, EBE 292 EBE 293, and EBE 294) can be
applied in place of NTK/CSD elective hours. ITS electives cannot include ITS 080, ITS 081.
***Any MGT, MKT or ACC course not already prescribed.
****ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.

## CyberSecurity Specialist Option

Information technology is one of the fastest-growing career fields today. The CyberSecurity Option curriculum prepares students to design, implement, manage and maintain computer and network-based security technologies. The curriculum allows students to customize their program by choosing one area of concentration during the second year. The areas of concentration can be found on the page following the Computer Network curriculum in this section. Please discuss with your academic advisor which concentrations are best for meeting your career goals. This curriculum can assist students in preparing for the following certifications: CompTIA (A+, Network+, Linux+, Security+, Project+); Microsoft Certified Professional, Cisco Certified Network Associate and Oracle Certified Administrator.

Computer Networking students can increase their learning (and earning) potential by participating in the cooperative education work-experience program. Through this program, students can spend up to two quarters working in the information technology field while earning college credits. Interested students should contact their academic advisor.

The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Computer Networking, a graduate will be able to:

- demonstrate knowledge of computer terms and concepts.
- troubleshoot basic desktop and server hardware and operating system problems.
- install, manage and configure network operating systems. (Administration concentration)
- install, manage and configure database management systems. (Oracle Database concentration)
- implement LAN/WAN infrastructure technologies. (Infrastructure Concentration)
- implement network security technologies. (CyberSecurity)


## Scholastic Preparation

Computer Networking students need a high school algebra background equivalent to CPE 101 (Introduction to Algebra). Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a
preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

## Degree Availability

These programs are available during the day and evening. Contact your academic advisor about evening curriculum guides.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

NTK 176 PC/Network Essentials I 6
ACC 111 Principles of Accounting I 4
MGT 105 Contemporary American Business 3
ENG 111 English I
Winter
NTK 178 PC/Network Essentials II 6
ENG 112
English II or
ENG 135 Business Report Writing****
MGT 200 Project Management 4
Project Management 4
-- Humanities/Social Science Elective (GA)3

Spring
NTK 179 PC Network Essentials III 6
ENG 221 Business Communications 3
ITS 12S Beginning Spreadsheet l

- Management/Marketing/

Accounting Elective*** 3
Social Science Elective 3
Fall
NTK - Concentration A, Course 1* 5
MGT 221 CyberSecurity Management I* 5
NTK 225 Wireless Networking 5

- Humanities/Social Science Elective


## Winter

NTK - Concentration A, Course 2* 5
MGT 222 CyberSecurity Management II 5
NTK 245 CyberSecurity - OS and Networks** 5
COM 121 Effective Speaking 3

## Spring

NTK - Concentration A, Course 3* 5
NTK 246 CyberSecurity - Firewall Technologies** 5
NTK 247 CyberSecurity - Forensic Analysis** 5
NTK 288 Advanced Networking Topics 5
Total credit hours 106

* Choose any one concentration from Network Administration, Network Infrastructure, Oracle Database (see concentrations
on earlier page).
**Students may substitute EBE 100 and EBE 283 for NTK 245 or NTK 246 or NTK 247.
***Any MGT, MKT or ACC course not already prescribed.
****ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.


## Technical Systems Support Option

Information technology is one of the fastest-growing career fields today. The Technical System Support curriculum prepares students to support computer and network endusers. The curriculum allows students to customize their program by choosing one area of concentration during the second year. The areas of concentration can be found on the page following the Computer Networking curriculum in this section. Students should discuss with their academic advisor which concentrations are best for meeting their career goals.

This curriculum can assist students in preparing for the following certifications: CompTIA (Network+, Linux+, Security+, Project+); Microsoft Certified Professional, Cisco Certified Network Associate and Oracle Certified Administrator.

Technical Systems Support students can increase their learning (and earning) potential by participating in the cooperative education work experience program. Through this program, students can spend up to two quarters working in the information technology field while earning college credits. Interested students should contact their academic advisor or the Director of Career Management for more information.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Technical Systems Support, a graduate will be able to:

- demonstrate knowledge of computer terms and concepts.
- troubleshoot basic desktop and server hardware and operating system problems.
- use and troubleshoot basic application software.
- install, manage and configure network operating systems. (Administration concentration)
- install, manage and configure database management systems. (Oracle Database concentration)
- implement LAN/WAN infrastructure technologies. (Infrastructure concentration)
- implement network security technologies. (CyberSecurity concentration)

Technical Support students need a high school algebra background equivalent to DEV 101 or CPE 101 Introduction to Algebra. Students with little or no computer background should enroll in ITS 080 Computer Fundamentals as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102 Keyboarding/Word Processing.

## Degree Availability

These programs are available during the day and evening. Contact your academic advisor about evening curriculum guides.

Humanities/Social Science Electives
A complete listing of humanities and social science electives begins on page 5 .

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| NTK 176 | PC/Network Essentials I | 6 |
| ACC 111 | Principles of Accounting I | 4 |
| MGT 105 | Contemporary American Business | 3 |
| ENG 111 | English I | 4 |
|  |  |  |
| Winter |  | 6 |
| NTK 178 | PC/Network Essentials II |  |
| ENG 112 | English II or | 4 |
| ENG 135 | Business Report Writing**** | 4 |
| MGT 200 | Project Management |  |
| - | Humanities/Social Science Elective | 3 |

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Humanities/Social Science Elective

## Spring

NTK 179 PC/Network Essentials III 6
ENG 221 Business Communications 3
ITS 12S Beginning Spreadsheet

-     - Management/Marketing/

Accounting Elective***

- Social Science Elective

Fall
NTK - Concentration A, Course 1* 5
NTK - NTK/CSD or Co-op Elective(s)** 5
ITS 12A Windows Concepts 2
ITS 12D Beginning Database
ITS 12W Beginning Word Processing 1
ITS - ITS Elective***** 1

- Humanities/Social Science Elective (GA)


## Winter

NTK - Concentration A, Course 2* 5
NTK - NTK/CSD or Co-op Elective(s)* 5
COM 121 Effective Speaking 3
ITS 14D Intermediate Database 2
ITS -

ITS Elective*****

Spring
NTK - Concentration A, Course 3* 5
NTK 288 Advanced Networking Topics 5
NTK - NTK/CSD or Co-op Elective(s) 3
ITS 14W Intermediate Word Processing 2
ITS -
ITS Elective(s)*****

Total credit hours
102
*Choose any one concentration from CyberSecurity, Network Administration, Network Infrastructure, Oracle Database (see concentrations on earlier page).
**NTK/CSD elective hours must total a minimum of 13 hours. Cooperative Education courses (EBE 100, EBE 282, EBE 283, EBE 284, EBE 292, EBE 293, and EBE 294) can be applied in place of NTK/CSD elective hours. ITS electives cannot include ITS 080, ITS 081.
***Any MGT, MKT or ACC course not already prescribed.
****ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.
*****ITS electives must total a minimum of 5 hours. ITS courses may not include ITS 080, ITS 081, ITS 12K, ITS 102, ITS 103.

## Computer Networking Departmental Certificates

A number of departmental certificates are offered in Information Technology and are designed for individuals working in the field who may wish to upgrade their skills. Students who have little or no computer background are cautioned that these certificates may not provide the necessary information technology skills for them to achieve their goals. All course work completed is applicable to the appropriate associate degree program. These certificates can be applied for by filling out the certificate application form in the Business and Applied Technologies Division Office in the Brinkman Educational Center.

## CyberSecurity Certificate

This certificate is focused on providing the knowledge and skills necessary to design, implement, manage and maintain computer and network-based security technologies.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | :--- |
| NTK 176 | PC/Network Essentials I | 6 |
| NTK 178 | PC/Network Essentials II | 6 |
| NTK 179 | PC Network Essentials III | 6 |
| MGT 211 | Cyber Security Management I | 5 |
| MGT 212 | CyberSecurity Management II | 5 |
| NTK 245 | Cyber Security Management III | 5 |
| NTK 246 | CyberSecurity - OS \& Networks | 5 |
| NTK 247 | CyberSecurity - Firewall Technologies | 5 |
|  |  | 43 |

## Network Administration Certificate

This certificate is focused on providing the knowledge and skills necessary to install, configure and administer a variety of network operating systems and services.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| NTK 176 | PC/Network Essentials I | 6 |
| NTK 178 | PC/Network Essentials II | 6 |
| NTK 179 | PC Network Essentials III | 6 |
| NTK 240 | Linux/Unix Administration I | 5 |
| NTK 270 | Administering Microsoft Professional | 5 |
| NTK 272 | Administering Microsoft Server | 5 |
|  |  |  |
|  | Total credit hours | 33 |

## Network Infrastructure Certificate

This certificate is focused on providing the knowledge and skills necessary to design, configure, install and manage a computer network infrastructure.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

NTK 176 PC/Network Essentials I ..... 6
NTK 178 PC/Network Essentials II ..... 6
NTK 179 PC/Network Essentials III ..... 6
NTK 201 Cisco Associate I ..... 5
NTK 202 Cisco Associate II ..... 5
NTK 203 Cisco Associate III ..... 5
Total credit hours ..... 33

## Oracle Database Management Certificate

This certificate is focused on providing the knowledge and skills necessary to configure and administer an Oracle database management system.
Course Course Credit
Number Title ..... Hours
NTK 176 PC/Network Essentials I ..... 6
NTK 178 PC/Network Essentials II ..... 6
NTK 179 PC/Network Essentials III ..... 6
NTK 255 Introduction to Oracle ..... 5
NTK 256 Oracle Administration I ..... 5
NTK 257 Oracle Data Mining and Warehousing ..... 5
Total credit hours ..... 33

## Technical Support Certificate

This certificate is focused on providing the knowledge and skills necessary to support computer and network end-users and support desktop application software.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| NTK 176 | PC/Network Essentials I | 6 |
| NTK 178 | PC/Network Essentials II | 6 |
| NTK 179 | PC/Network Essentials III | 6 |
| ITS 12A | Window Concepts | 2 |
| ITS 14A | Intermediate Window Concepts | 2 |
| ITS 12D | Beginning Database | 1 |
| ITS 14D | Intermediate Database | 2 |
| ITS 12S | Beginning Spreadsheet | 1 |
| ITS 14S | Intermediate Spreadsheet | 2 |
| ITS 12W | Beginning Word Processing | 1 |
| ITS 14W | Intermediate Word Processing | 2 |
| ITS - | ITS Elective(s)* | 5 |
|  |  |  |
|  | Total credit hours | 36 |

* ITS 080. ITS 081, ITS 12K, ITS 102 and ITS 103 cannot


## Computer Software Development Computer Software Development

Information technology is one of the fastest-growing career fields today. The Computer Software Development curriculum prepares the students to analyze, design and develop solutions to business problems through the use of technology. Students learn and work with a variety of popular programming languages and industry-standard development tools, as well as database management tools. Object-oriented and client-server application environments are used. Students will work within a variety of operating system environments. Specific attention will be paid to the Web Services programming model.

Computer Software Development students can increase their learning (and earning) potential by participating in the cooperative education work-experience program. Through this program, students can spend up to two quarters working in the information technology field while earning college credits. Interested students should contact their academic advisor or the Director of Career Management for more information.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Computer Software Development, a graduate will be able to:

- critically analyze information system requirements.
- build traditional and object-oriented information system models.
- write computer programs to implement information system designs.
- model business data requirements.
- develop back-end relational databases.


## Scholastic Preparation

Computer Software Development students need a high school algebra background equivalent to CPE 101 Introduction to Algebra. Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

## Degree Availability

The first year of this program is available during the day and evening. Many of the second-year courses are only available in the evening. Contact your academic advisor about course sequencing.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

## Fall

CSD 105 Programming Fundamentals 4
COM 121 Effective Speaking 3
ENG 111 English I 4
ITS 12A Windows Concepts 2
ITS 12S Beginning Spreadsheet 1
MGT 105 Contemporary American Business 3

## Winter

CSD 121 Visual Basic Programming I 4
ENG 112 English II or
ENG 135 Business Report Writing** 4
ITS 12D Beginning Database 1
ITS 115 HTML Fundamentals 4
PHL 205 Deductive Logic 3
--
Social Science Elective

## Spring

CSD 12
Visual Basic Programming II 4
CSD 145 UNIX Concepts 4
ITS 110 Database Management Systems 6
ITS 118 XML Web Services 4

## Fall

CSD 150 Database Administration 5
CSD 224 Java Concepts I 4
CSD- CSD, EBE, ITS, or NTK Elective* 3
ENG 221 Business Communications 3
ITS 230 Introduction to Web Design 3

## Winter

CSD 220 Systems Analysis 4
CSD 225 Java Concepts II 4
CSD CSD, EBE, ITS, or NTK Elective* 3
ITS 231 Web Page Multimedia 3
MGT 106 Organizational Behavior 4
Spring
CSD 160 Database Design 5
CSD 222 Systems Design 4
CSD 270 Creating and Publishing Websites 4
CSD- CSD, EBE, ITS, or NTK Elective* 3
COM 111 Interpersonal Communication 3
Total credit hours 109

* EBE 110, ITS 080, ITS 081, ITS 12K, ITS 102, cannot be used as electives. CSD elective hours must total a minimum of 9 hours.
** ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.


## Computer Software Development Departmental Certificates

A number of departmental certificates are offered in Information Technology and are designed for individuals working in the field who may wish to upgrade their skills. Students who have little or no computer background are cautioned that these certificates may not provide the necessary information technology skills for them to achieve their goals. All course work completed is applicable to the appropriate associate degree program. These certificates can be applied for by filling out the certificate application form in the Business and Applied Technologies Division Office in the Brinkman Educational Center.

## Computer Software Development/ <br> Programming Certificate

This certificate provides the knowledge and skills necessary to design and develop computer software applications. Programming languages will include both procedural and object-oriented methodologies.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CSD 105 | Programming Fundamentals | 4 |
| CSD 121 | Visual Basic Programming I | 4 |
| CSD 122 | Visual Basic Programming II | 4 |
| CSD 150 | Database Administration | 5 |
| CSD 160 | Database Design | 5 |
| CSD 224 | Java Concepts I | 4 |
| CSD 225 | Java Concepts II | 4 |
| ITS 110 | Database Management Systems | 6 |
| ITS 115 | HTML Fundamentals | 4 |
| ITS 118 | XML Web Services | 4 |
|  |  | 44 |

## Microsoft Database Administration/ Programming Certificate

This certificate is mapped to the MCDBA certification and focuses on the programming track.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CSD 105 | Programming Fundamentals | 4 |
| CSD 121 | Visual Basic Programming I | 4 |
| CSD 122 | Visual Basic Programming II | 4 |
| CSD 150 | Database Administration | 5 |
| CSD 160 | Database Design | 5 |
| ITS 110 | Database Management Systems | 6 |
| ITS 115 | HTML Fundamentals | 4 |
| ITS 118 | XML Web Services | 4 |
| NTK 270 | Administering Microsoft Professional | 5 |
| NTK 272 | Administering Microsoft Server | 5 |
|  |  | 46 |

## Microsoft Database Administration/ <br> Networking Certificate

This certificate is mapped to the MCDBA certification and focuses on the networking track.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CSD 150 | Database Administration | 5 |
| CSD 160 | Database Design | 5 |
| ITS 110 | Database Management Systems | 6 |
| ITS 118 | XML Web Services | 4 |
| NTK 270 | Administering Microsoft Professional | 5 |
| NTK 272 | Administering Microsoft Server | 5 |
| NTK 274 | Administering Microsoft Network | 5 |
|  |  |  |
|  | Total credit hours | 35 |

## Systems Analysis Certificate

This certificate provides the knowledge and skills necessary to analyze and develop business information systems. Both traditionally structured procedural methodologies and object-oriented methodologies will be included.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CSD 105 | Programming Fundamentals | 4 |
| CSD 150 | Database Administration | 5 |
| CSD 160 | Database Design | 5 |
| CSD 220 | Systems Analysis | 4 |
| CSD 222 | Systems Design | 4 |
| ITS 110 | Database Management Systems | 6 |
| ITS 118 | XML Web Services | 4 |
| MGT 200 | Introduction of Project Management | 4 |
|  |  | 36 |

## Web Services Certificate

The focus of this certificate is to provide the knowledge and
skills necessary to develop web applications and e-business systems. Web languages will include both procedural and object-oriented methodologies.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CSD 105 | Programming Fundamentals | 4 |
| CSD 121 | Visual Basic Programming I | 4 |
| CSD 122 | Visual Basic Programming II | 4 |
| CSD 270 | Creating and Publishing Web Sites | 4 |
| ITS 110 | Database Management Systems | 6 |
| ITS 115 | HTML Fundamentals | 4 |
| ITS 118 | XML Web Services | 4 |
| ITS 230 | Introduction to Web Design | 3 |
| ITS 231 | Web Page Multimedia | 3 |
|  |  |  |
|  | Total credit hours | 36 |

## Criminal Justice

## Basic Peace Officer Training Academy

Clark State Community College, in cooperation with local law enforcement agencies, the State of Ohio and the Ohio Peace Officers' Training Council, offers the Basic Peace Officer Training Academy. This is the state certifying academy mandated by the Ohio Peace Officer Training Council.

The objective of the academy is to provide the recruit with the basic fundamentals of entry-level peace officer training.

Academy applicants must meet stringent entrance requirements as directed by the Attorney General of the State of Ohio.
Formal class meetings for this academy may be held on the Clark State Campus or at a satellite location. Firearms training is conducted at both indoor and outdoor ranges at off-campus locations.

Recruits successfully completing this academy will earn some college credit toward a Criminal Justice Technology degree as well as the opportunity to sit for the state certification examination. Basic Peace Officer Training topics include administration, legal, human relations, firearms, driving, traffic accidents, investigation, patrol, traffic enforcement, civil disorders, unarmed self-defense, first aid and physical conditioning.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

CRJ 287
Basic Law Enforcement I Hours

CRJ 289
Basic Law Enforcement II
Total credit hours

## Corrections

Few careers in public service offer more challenge and variety to men and women than criminal justice.

The Corrections degree program offers the student a broad overview of the correctional system. The program prepares students for immediate employment in federal, state and local correctional facilities. Graduates may expect to qualify for entry-level positions as corrections officers, parole officers, and probation officers, as well as investigators and youth counselors.

The program schedules that follow are designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking developmental courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Corrections, a graduate will be able to:

- demonstrate the ability to use the on-campus email program by receiving, sending and attaching files to email.
- demonstrate competency by writing an incident report using acceptable college-level vocabulary, grammar and punctuation as appropriate in a correctional facility.
- demonstrate the ability to work and participate in small group projects.
- demonstrate the ability to identify a community problem and suggest a solution using critical thinking skills.
- demonstrate the ability to make a law enforcement oral presentation before an audience.
- demonstrate competency by working at a prison and performing as a professional in that arena.


## Prerequisites

Anyone considering a law enforcement career should recognize that employment involves meeting physical requirements, which vary greatly among different agencies.

A conviction of any of the below crimes is a disqualifier for this program:

- any felony.
- domestic violence or reduced charge stemming from a domestic violence incident.

Any questions should be directed to the Program Coordinator.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | :---: |
| Fall |  | 4 |
| CRJ 100 | Intro to Criminal Justice |  |
| CRJ 116 | Systems Approach to Computer | 3 |
|  | Technology | 4 |
| COR 100 | Intro to Corrections | 4 |
| ENG 111 | English I | 4 |
| SWK 105 | Chemical Dependency I |  |

## Winter

CRJ 120 Juvenile Procedures 3
COR 105 Probation and Parole 4
ENG 112 English II 4
MTH 106 Business Math 3
PSY 111 Psychology I 3

## Spring

CRJ 125 Community Policing 3
COM 111 Interpersonal Communication 3
COR 130 Adult/Juvenile Corrections 4
ENG 223 Technical Report Writing 3
SOC 110 Sociology 3
SOC 240 Racial and Cultural Minorities 3

## Fall

COR 280 Jail Practicum 4
PHL 240 Philosophy of World Religions 3
PLS 220 Constitutional Law 3
PSY 230 Abnormal Psychology 3

Winter
CRJ 226 Interview and Interrogation 3
CRJ 228 Criminal Investigations 3
CRJ 231 Criminal Law 3
COR 281 Juvenile Institutions Practicum 4

## Spring

CRJ 230 Social Justice 3
CRJ 250 Community Resources 3
COR 282 Adult Institutions Practicum 4

Total credit hours

## Criminal Justice

The Criminal Justice program provides students with a contemporary curriculum. The program is responsive to our ever-changing society, which demands highly-educated and well-qualified candidates to meet the increasing standards of a variety of peace officer agencies.

Opportunities are plentiful in the criminal justice system in sheriffs' departments, municipal police departments, the state highway patrol, corrections agencies and other public and private agencies.

The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Criminal Justice, a graduate will be able to:

- demonstrate the ability to use the on-campus e-mail program by receiving, sending and attaching files to email.
- demonstrate competency by writing an incident report using acceptable college-level vocabulary, grammar and punctuation as appropriate in the criminal justice field.
- demonstrate the ability to work and participate in small group projects.
- demonstrate the ability to identify a community problem and suggest a solution through critical thinking skills.
- demonstrate the ability to make a law enforcement oral presentation before an audience.
- demonstrate competency by working at a police agency and performing as a professional in that arena.


## Prerequisites

Anyone considering a law enforcement career should recognize that employment involves meeting physical requirements, which vary greatly among different agencies.

A conviction of any of the below crimes is a disqualifier for this program:

- any felony.
- domestic violence or reduced charge stemming from a domestic violence incident.

Any questions should be directed to the program coordinator.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | :--- |
| Fall |  |  |
| CRJ 100 | Intro to Criminal Justice | 4 |
| CRJ 112 | Traffic Management |  |
| CRJ 116 | Systems Approach to Computer | 3 |
|  | Technology | 3 |
| PHO 111 | Photography I | 3 |
| PSY 111 | Psychology I | 3 |
| Winter |  | 3 |
| CRJ 118 | Forensic Photography | 3 |
| CRJ 120 | Juvenile Procedures | 3 |
| CRJ 123 | Patrol Operations | 3 |
| ENG 111 | English I | 3 |
| MTH 106 | Business Math | 4 |

## Spring

CRJ 125 Community Policing 3
COM 111 Interpersonal Communication or
COM 121 Effective Speaking 3
ENG 112 English II 4
PHO 121 Color Photography I 3
SOC 110 Sociology 3
Fall
CRJ 201 Police Administration 3
CRJ 216 Community Relations 3
CRJ 221 Forensic Science I 5
ENG 223 Technical Report Writing 3
PLS 220 Constitutional Law 3
SWK 105 Chemical Dependency I 4
Winter
CRJ 223 Forensic Science II 5
CRJ 226 Interview/Interrogation 3
CRJ 228 Criminal Investigation 3
CRJ 231 Criminal Law 3

- Humanities/Social Science Elective 3

Spring
CRJ 230 Social Justice 3
CRJ 232 Ohio Criminal Code 3
CRJ 250 Community Resources 3
CRJ 280 Practicum 3
Total credit hours 98
Note: See Criminal Justice Coordinator for additional information on technical electives.

## Early Childhood Education <br> Early Childhood Education

The Early Childhood Education (ECE) program prepares individuals for employment in licensed child centers, nursery schools, hospitals, group homes, children's homes and other programs concerned with the well-being, development, and education of the infant, toddler, preschool child and the school-aged child enrolled in a child program.

Graduates of the Early Childhood Education degree work with children, helping them develop into the whole, productive persons they are meant to be.
The program schedules that follow are designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory requirements, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

Learning Outcomes
Upon completion of an associate degree in Early Childhood Education, a graduate will be able to:

- demonstrate knowledge of child development and learning.
- demonstrate knowledge of effective family and community relations.
- demonstrate ability to observe, document and assess young children and families.
- demonstrate teaching and learning processes.
- exhibit professional behaviors and attitude.
- demonstrate proficiency in general education and supportive skills.
- practice an appreciation and respect of diversity.


## Course Format

Selected courses are presented in both traditional and online formats. All courses with labs will be conducted on campus regardless of the format. Contact your advisor for further information.

## Overview

Students receive a total of 320 clock hours of supervised experiences in approved early childhood education settings during Practicum I and II. They are given the opportunity to observe and to complete student teaching with young children in the learning environment. Students have the unique opportunity to spend their practicums in the NAEYCaccredited Early Childhood Education Center adjacent to the Leffel Lane Campus, operated by Clark State and SpringfieldClark JVS. Seminars I and II give the students the chance to discuss their experiences and share ideas concerning curriculum planning and behavior management.

## Certification

The Early Childhood Education program is approved by the State Board of Education as meeting all criteria for preparing individuals for pre-kindergarten associate certification.

Students who choose to obtain Pre-K certification must meet all guidelines listed in the pre-kindergarten associate certification orientation packet, which is available in the ECE Office.

## Graduation Requirements

A grade of C or better in all ECE, EEP and EDU courses is required for graduation. Requests to repeat technical courses more than once must be approved by the program coordinator. Beginning in 2005, all graduating students must successfully complete the Capstone Course (ECE 292) regardless of their entry date into the program.

## Liability Insurance

Students will be billed for liability insurance for each year of Early Childhood Education courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | :--- |
| Fall |  |  |
| ECE 101 | Professional Development for <br>  <br> Educators | 1 |
| ECE 102 | Intro to Early Childhood Education | 4 |
| ECE 114 | Art, Music and the Child | 3 |
| ENG 111 | English I | 4 |
| PSY 111 | Psychology I | 3 |
| SOC 110 | Sociology | 3 |
| Winter |  |  |
| ECE 110 | Infant/Toddler Education | 3 |
| ECE 115 | Resources in Early Childhood | 2 |
|  | Education | 4 |
| ENG 112 | English II |  |
| PSY 221 | Human Growth and Development I | 3 |
| EEP 122 | Diversity In Education | 3 |

## Spring

ECE 108

## Observing and Assessing Young Children <br> 4

ECE 120 Language Development and the Child ..... 3
ECE 250 Positive Guidance: Early Childhood ..... 3
COM 121 Effective Speaking ..... 3
ITS 12 W Beginning Word Processing ..... 1
SOC 240 Racial and Cultural Minorities ..... 3

Fall

ECE 211 Sensory Motor Skills 3
ECE 213 Health, Safety and Nutrition 3
ECE 215 Math/Science Activities
ECE 223 Curriculum and Instruction In Early Childhood Education
ENG 223 Technical Report Writing 3

Winter
EDU 217 Individuals with Exceptionalities 4
ECE 224 School Age Curriculum 3
ECE 271 ECE Practicum I 2
ECE 291 Child Care Seminar I 2
MTH 121 College Algebra I** 3

- Technical Elective* 3

Spring
ECE 225 Professional, Legal, Ethical Issues 2
ECE 230 Organizational Management 3
ECE 272 ECE Practicum II 2
ECE 292 Child Care Seminar II 2

- Technical Elective* 3
- Humanities/Social Science Elective(GA) 3

$$
\text { Total credit hours } 97
$$

*Technical electives include: ECE 210, ECE 220, ECE 221, ECE 222 or any EEP or EDU course.
**Students may substitute MTH 106 Business Mathematics for MTH 121 College Algebra I.

## Early Childhood Education

## Administration Option

The Early Childhood Education Administration degree will prepare the graduate to be endorsed as a director of a preschool/child care center.

This option will follow the guidelines of the Ohio Department of Human Services, Licensing Rules, \#5101:2-12-25, for a child care administrator.

The Early Childhood Administration graduate will have knowledge of early childhood development theories, developmentally appropriate practice in early childhood and business and management skills.

Students will receive 160 hours of supervised experiences under an administrator in an approved early childhood education program during Practicum II.

Selected courses are presented in both traditional and on-line formats. All courses with labs will be conducted on campus regardless of the format. Contact your advisor for further information.


ECE 101 Professional Development for Educators1
ECE 102 Intro to Early Childhood Education ..... 4
ECE 114 Art, Music and Child ..... 3
MGT 112 Principles of Management ..... 4
ENG 111 English I ..... 4
PSY 111 Psychology I ..... 3
Winter
ECE 110 Infant/Toddler Education ..... 3
ECE 115 Resources in Early Childhood Education ..... 2
ENG 112 English II ..... 4
PSY 221 Human Growth and Development I ..... 3
EEP 122 Diversity In Education ..... 3
Spring
ECE 250 Positive Guidance: Early Childhood ..... 3
MGT 106 Organizational Behavior ..... 4
COM 121 Effective Speaking ..... 3
ITS 103 Information Technology Basics ..... 3
SOC 110 Sociology ..... 3
Fall
ECE 213 Health, Safety and Nutrition ..... 3
ECE 223 Curriculum and Instruction In Early Childhood Education ..... 3
ACC 111 Principles of Accounting I ..... 4
ENG 223 Technical Report Writing ..... 3

- Technical Elective* ..... 3
Winter
EDU 217 Individuals with Exceptionalities ..... 4
ECE 224 School Age Curriculum ..... 3
ECE 271 ECE Practicum I ..... 2
ECE 275 Leadership and Mentoring in Childhood Programs ..... 2
ECE 291 Child Care Seminar I ..... 2
Spring
ECE 225 Professional, Legal, Ethical Issues ..... 2
ECE 230 Organizational Management ..... 3
ECE 283 Child Care Practicum - Administration ..... 2
ECE 293 Child Care Seminar - Administration ..... 2
SOC 240 Racial and Cultural Minorities ..... 3
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Credit Hours

## Fall

## Early Childhood Education Departmental Certificates

Two departmental certificates are available for students interested in gaining specialized knowledge in literacy or early childhood administration. A certificate application form is available in the Health and Human Services Office located in the Applied Science Center. These certificates can be completed in one year.

## Early Childhood Administration

## Departmental Certificate

The Early Childhood Administration Certificate enables students to meet the state minimum requirements for a director of a licensed child care center. The certificate can be completed in one academic year.

| Course | Course | Credif |
| :--- | :--- | :--- |
| Titherer | Hours |  |

## Number

Cours Hours

Fall
ECE 101 Professional Development for
 ECE 102 Intro to Early Childhood Education
ECE 213 Health, Safety and Nutrition1ENG 111 English I3
ITS 12W Beginning Word Processing4
Winter
ECE 110 Infant/Toddler Education ..... 3
EDU 217 Individuals with Exceptionalities ..... 4
ECE 275 Leadership and Mentoring ..... 2
PSY 111 Psychology ..... 3
Spring
ECE 225 Professional, Legal, Ethical Issues ..... 2
ECE 230 Organizational Management ..... 3
ECE - Technical Elective ..... 3
MTH 106 Business Math ..... 3
Total credit hours ..... 36

## Early Literacy Development Departmental Certificate

The Early Literacy Development Certificate is intended to expand the core knowledge of in-service teachers

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| ECE 220 | Early Literacy Development - A | 3 |
| Winter |  | 3 |
| ECE 210 | Children's Literature | 3 |
| ECE 221 | Early Literacy Development - B | 3 |
|  |  | 3 |
| Spring |  |  |
| ECE 222 | Early Literacy Development - C |  |
| ECE 120 | Language Development and the Child | 3 |
|  |  | 15 |

Note: Enrollment must be approved in advance. A grade of $C$ or better must be achieved in all the courses. Limit of three transfer credit hours.

## Early Elementary Paraprofessional

The Early Elementary Paraprofessional program prepares individuals for employment as educational paraprofessionals in a variety of school settings.

The program follows the guidelines set by the Ohio Department of Education. Graduates of the Early Elementary Paraprofessional program will have knowledge of elementary education theory, best practices and educational standards.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory education requirements, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in the Early Elementary Paraprofessional program, a graduate will be able to:

- demonstrate the basic academic skills required to proficiently assist P-12 students in reading, writing and mathematics.
- demonstrate knowledge of how children and youth learn and develop and provide assistance that supports the intellectual, social/emotional and personal development of all learners.
- demonstrate knowledge of the purposes and value of programs for individuals with exceptional learning needs.
- demonstrate knowledge of and apply effective instructional and assessment strategies to assist teaching and learning in a variety of settings.
- use the principles of effective classroom management and individualized behavior interventions.
- follow and use prescribed district or agency policies and procedures, to ensure the safety, health and general well-being of learners.
- demonstrate ability to communicate effectively, follow instructions and use problem solving to work as an effective member of an instructional team.
- practice ethical and professional standards of conduct.
- demonstrate an ability to utilize technology to enrich learning opportunities.


## Course Format

Selected courses are presented in both traditional and on-line formats. You may also be able to earn credit for your life experiences through the College's Prior Learning Portfolio program. Contact your advisor for further information.

## Overview

Students receive a total of 160 clock hours of supervised experiences in approved classroom settings during Practicums. They are given the opportunity to observe and to complete practical experiences with children in the learning environment. Seminars give the students the chance to discuss their experiences and share ideas concerning curriculum planning and behavior management.

## Certification

The Early Elementary Paraprofessional program is approved by the State Board of Education as meeting all criteria for preparing individuals for an Educational Paraprofessional Associates license.

## Graduation Requirements

A grade of $C$ or better in all ECE, EDU and EEP courses is required for graduation.

## Liability Insurance

Students will be billed for liability insurance for each year of Early Elementary Paraprofessional courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

Fall
ECE 101 Professional Development For

Educators
ECE 102 Introduction to Early Childhood Education
ECE 114 Art Music \& Young Child 3
ECE 213 Health Safety \& Nutrition 3
ENG 111 English I
4
PSY 111 Psychology I

## Winter

EEP 122 Diversity in Education 3
EDU 217 Individuals with Exceptionalities 4
ECE 210 Children's Literature 3
ENG 112 English II 4
PSY 221 Human Growth and Development I

Spring
EDU 110 Introduction to Education 5
ECE 120 Language Development \& the Child 3

COM 111 Interpersonal Communication 3

ECE 108 Observing and Assessing Young Children
ITS 103 Information Technology Basics3

## Fall

ECE 250 Positive Guidance in Early Childhood 3
ECE 223 Curriculum and Instruction in Early
EEP 200 Educational Teaming:
SOC 110 Sociology I 3
MTH 121 College Algebra I
3

- Technical Elective*

3

Childhood Education
Childhood Education3

Working with FamiliesSOC 110 Sociology I3
-

## Winter

EEP 228 Tutoring and Small Group Instruction ..... 3
COM 121 Effective Speaking ..... 3
ECE 271 Practicum I ..... 2
ECE 291 Seminar I ..... 2
ENG 223 Technical Report Writing ..... 3

- Technical Elective* ..... 3
Spring
EDU 216 Technology for Educators ..... 4
SOC 240 Racial and Cultural Minorities ..... 3
ECE 225 Professional Legal and Ethical Issues ..... 2
ECE 272 Practicum II ..... 2
ECE 292 Seminar II ..... 2
Total Credit Hours ..... 100
*Technical electives include ECE 211, ECE 215, ECE 220ECE 221 and ECE 222


## Emergency Medical Services <br> Emergency Medical Services

Emergency medical services are expanding rapidly with more opportunities developing for emergency medical technicians (EMTs) and paramedics.

Although working in EMS has traditionally meant working for a fire department, rescue squad or ambulance, there are also positions in education, management, research publishing, communications, support services and health agencies.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory requirements, will require additional quarters of study. Students should consult their EMS advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Emergency Medical Services, a graduate will be able to:

- demonstrate technical proficiency in all skills necessary to fulfill the role of entry-level paramedic.
- communicate effectively with victims, families and other healthcare providers.
- exhibit behaviors consistent with professional standards and employer expectations.
- demonstrate ability to integrate pathophysiologic and psychosocial principles and assessment findings to formulate a field impression and implement a treatment plan for the out-of-hospital client.


## Overview

Clark State Community College offers a two-year associate degree and several certification programs. The certification courses may be taken separately or in conjunction with the associate degree program. The program introduces the student to a variety of emergency care situations and experiences both in the hospital setting and on emergency vehicles. Both day and evening courses are available. The associate degree program is normally held in the evening, but many courses may be taken during the day.

## Scholastic Preparation

All entering students must have a high school diploma or its equivalent. In addition, each student must take reading, writing and math placement tests and may need to take college preparatory courses if indicated by placement testing scores.

## Prerequisites

An individual seeking a career in emergency medical services should realize that to be successful, he/she must be emotionally stable, flexible and physically fit enough to perform the minimum entry-level job requirements.
Prior to entering EMS 131, the student must meet the following entrance requirements:

- Complete a Request to Enter form which can be obtained from the Admissions Office or online.
- Ohio EMT-Basic certification.
- Current CPR provider certification.
- Three letters of recommendation.
- Pass Health Occupations Basic Entrance Test (HOBET).
- Physical exam and health requirements.
- Criminal background check.
- Complete BIO 102 and BIO 105 with a C or better.


## Articulated Credit

Students who have current Ohio EMT-Paramedic certification and wish to obtain an associate degree in Emergency Medical Services will be granted articulated credit for BIO 102 Medical Terminology, BIO 105 Fundamentals of Anatomy and Physiology and the EMS Paramedic courses listed in the first year of the curriculum after completing 20 hours of course work towards their EMS degree at Clark State. Students who wish to be granted articulated credit must submit an EMS Articulated Credit Application form and appropriate documentation to the Dean of Health and Human Services. The Articulated Credit Application form is available in the Health and Human Services Division Office, Applied Science Center, Room 133.

## Graduation Requirements

To qualify for an Associate Degree, Emergency Medical Services students must pass all the required courses, have a cumulative GPA of 2.0 , and have a " $C$ " as a minimum grade in all the technical (EMS) courses.

In addition, students must have completed at least 30 credits of course work, including MGT 106, all second year EMS course, and the 7 credit hours of technical electives at Clark State.

Credit equivalencies such as articulated, experiential, transfer or proficiency credit do not count towards this requirement.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

Summer
BIO 102
Medical Terminology
BIO 105 Fundamentals of Anatomy and Physiology

Fall
EMS 131 Paramedic Theory/Practice I* 6
EMS 132 Paramedic Practical Skills Lab I* 1
EMS 112 Paramedic Hospital Practice I* 1
EMS 118 Paramedic Field Practice I* 1
ENG 111 English I 4
ITS - Computer Modules 3

## Winter

EMS 133 Paramedic Theory II 6
EMS 134 Paramedic Practical Skills Lab II 1
EMS 114 Paramedic Hospital Practice II 2
EMS 120 Paramedic Field Practice II

| ENG 112 | English II | 4 |
| :--- | :--- | :--- |
| PSY 111 | Psychology I | 3 |
| Spring |  |  |
| EMS 135 | Paramedic Theory III | 6 |
| EMS 136 | Paramedic Practical Skills Lab III | 1 |
| EMS 116 | Paramedic Hospital Practice III | 2 |
| EMS 122 | Paramedic Field Practice III | 1 |
| COM 111 | Interpersonal Communication | 3 |
| PSY 230 | Abnormal Psychology | 3 |
| Fall |  |  |
| EMS 225 | Advanced Patient Assessment | 4 |
| MGT 106 | Organizational Behavior | 4 |
| PHL 210 | Ethics | 3 |
| - | Humanities/Social Science Elective | 3 |
| Winter |  |  |
| EMS 220 | EMS Pharmacology | 3 |
| EMS 240 | Hazardous Material/Disaster |  |
|  | Management | 3 |
| PSY 223 | Lifespan Human Growth and |  |
|  | Development | 5 |
| Technical Elective* | 3 |  |
| Spring |  |  |
| EMS 250 | EMS Legal Insights | 96 |
| ENG 223 | Technical Report Writing | 2 |
| -- | Humanities/Social Science Elective | 3 |
| -- | Technical Elective** | 4 |
|  | Total credit hours |  |

*Students who have current Ohio EMT Intermediate certification can obtain articulated credit for BIO 102, BIO 105, EMS 131, EMS 132, EMS 112 and EMS 118
**Technical electives include: SWK 105, SWK 220, MGT 112, HRM 225

## Emergency Medical Services Departmental Certificates

## EMT-Basic Certification Program

The EMT-Basic Course is an eight credit-hour course that includes 130 hours of classroom, clinical and lab instruction that can be completed in one quarter. Upon successful completion of this course the student is eligible to sit for the National Registry and State Certification Examination at the basic level. Those who complete the course are prepared to work in an entry-level position providing ambulance services and in fire divisions statewide. This course is the foundation course that serves as a stepping stone to full paramedic certification. Students entering EMS 100 must:

- have Basic Life Support (BLS) certification for professional CPR or must obtain instructor permission to enroll in EMS 171, Basic Life Support, concurrently.
- obtain a criminal background check.

Students must be 18 years of age to sit for the state examination.

## EMT-Intermediate Certification Program

This program builds on the existing knowledge and skill of the EMT-Basic certification in the following distinct areas: roles and responsibilities of the advanced-level provider, pre-hospital environment, preparatory skills including advanced patient assessment, medical communications, advanced airway management, defibrillation, epinephrine administration, pain management and shock management with intravenous fluid therapy. The courses listed below provide the foundation for state and National Registry Certification at the intermediate level. Students who have current EMT Intermediate certification can apply to enter the paramedic program in the winter quarter if they have completed BIO 102 and BIO 105 with a C or better.

Prior to entering EMS 107, the student must meet the following entrance requirements:

- Complete a Request to Enter form which can be obtained from the Admissions office or online.
- Ohio EMT-Basic certification.
- Current CPR provider certification.
- Three letters of recommendation.
- Pass Health Occupations Basic Entrance Test (HOBET).
- Physical exam and health requirements.
- Criminal background check.


## Prerequisites

An individual seeking a career in emergency medical services should realize that to be successful he/she must be emotionally stable, flexible and physically fit enough to perform the minimum entry-level job requirements.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Winter

EMS 107 EMT Intermediate Theory/Practice I 4
Spring
EMS 108 EMT-Intermediate Theory/Practice II 3
EMS 113 EMT-Intermediate
Hospital/Field Practice
Total credit hours
8

## Paramedic Certification Program

The Paramedic Certification Program provides quality education in the "art and science" of advanced out-of-hospital emergency care. This curriculum provides for integration of knowledge and skills including pre-hospital environment, preparatory skills, trauma and burns, medical emergencies, OB/GYN emergencies, behavioral emergencies and crisis intervention. Upon successful completion, the student will meet the objectives of the National Standard Paramedic

Training Curriculum, providing eligibility for National Registry Certification exam.

## Prerequisites

An individual seeking a career in emergency medical services should realize that to be successful, he/she must be emotionally stable, flexible and physically fit enough to perform the minimum entry level job requirement.

Prior to entering EMS 131, the student must meet the following entrance requirements:

- Complete a Request to Enter form which can be obtained from the Admissions Office or online.
- Ohio EMT-Basic certification.
- Current CPR provider card.
- Three letters of recommendation.
- Pass Health Occupations Basic Entrance Test (HOBET).
- Physical exam and health requirements.
- Criminal background check.
- Complete BIO 102 and BIO 105 with a "C" or better.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Summer

BIO 102 Medical Terminology
Credit
Hours
Number
Title
Hours

BIO 105 Fundamentals of Anatomy \& Physiology

34

## Fall

EMS 131 Paramedic Theory I* 6
EMS 132 Paramedic Practical Skills Lab I* 1
EMS 112 Paramedic Hospital Practice I* 1
EMS 118 Paramedic Field Practice I* 1

## Winter

EMS 133 Paramedic Theory II 6
EMS 134 Paramedic Practical Skills Lab II 1
EMS 114 Paramedic Hospital Practice II 2
EMS 120 Paramedic Field Practice II 1

Spring
EMS 135 Paramedic Theory III 6
EMS 136 Paramedic Practical Skills Lab III 1
EMS 116 Paramedic Hospital Practice III 2
EMS 122 Paramedic Field Practice III 1

Total credit hours 36
*Students who have current EMT Intermediate certification can obtain articulated credit for EMS 131, EMS 132, EMS 112 and EMS 118

## Paramedic Certification Program for Registered Nurses

This program is designed to provide education encompassing the six divisions of the USDOT National Standard Paramedic Training Curriculum in an enhanced format. The registered nurse who has prior education and experience in emergency and/or critical care will have the opportunity to achieve advanced standing in the Paramedic Certification Program.

## Prerequisites

An individual seeking a career in emergency medical services should realize that to be successful, he/she must be emotionally stable, flexible and physically fit enough to perform the minimum entry-level job requirements.

Prior to entering EMS 288, the student must meet the following entrance requirements:

- Complete a Request to Enter form in the Admissions Office.
- Ohio EMT-Basic certification.
- Current CPR provider card; ACLS provider; PALS provider, PHTLS or BTLS provider.
- Three letters of recommendation.
- Physical exam and health requirements.
- Criminal background check if required by clinical agency.
- Proof of licensure for RN, nurse practitioner or physician's assistant.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

EMS 288 Paramedic Theory for RNs

## Engineering Technologies

Students completing an associate degree in Computer-Aided Design (CAD) Technology are qualified to play a support role to the engineering professions in industrial, research and academic areas preparing drawings, blueprints, layouts, bills of materials, manufacturing and product support documentation. Training in the area of advanced computer-aided drafting is also included.

In addition to applied technical courses, Computer-Aided Design (CAD) Technology includes an optional co-op experience. Students must complete EBE 100, Employability Skills, as a technical elective and then work with Career Services to secure an appropriate co-op site.

Most of the first-year courses are offered as both day and evening sections. It is intended that the programs can be completed by taking courses in the evening on a part-time basis. Students may be required to take evening classes to complete the program since day sections may not be offered for some of the second-year courses.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisor for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Computer-Aided Design (CAD) Technology, a graduate will be able to:

- produce a finished product per quality specifications using knowledge of engineering materials, metrology and manufacturing processes.
- prepare drawings to completely describe a part for manufacture per American National Standards Institute (ANSI) specifications.
- apply Design (CAD) to produce mechanical drawings using a CAD system.
- use knowledge of construction materials and practices to specify and provide cost and material estimates for a construction project.
- apply Design (CAD) to produce an illustrated part/maintenance manual.


## Scholastic Preparation

Students starting the program should have had two years of high school drafting and one year each of high school algebra, trigonometry and physics or equivalent. Students may take these preparatory courses at Clark State, but it will require a longer amount of time to complete their degree program. Students who have not had two years of high school drafting or significant work experience in drafting will be required to take DFT 101, Drafting I. Those without high school physics must complete PHY 110, Fundamentals of Physics.

## Fall

DFT 102 Drafting II 3
ENG 111 English I 4
ENT 101 Engineering Methods 3
$\begin{array}{ll}\text { ENT } 121 & \text { Computer Basics for } \\ & \text { Applied Technology }\end{array}$
INT 101 Metrology I 2
MTH 101 Technical Math Applications A 1

## Winter

DFT 211 Computer-Aided Design 4
ENG 112 English II 4
ENT 109 Manufacturing Lab 2
ENT 110 Manufacturing Processes 3
MTH 107 Technical Math Applications B 1
MTH 121 College Algebra I 3
Spring
DFT 212 Computer Aided Design II 4
ENG 223 Technical Report Writing 3
ENT 111 Engineering Materials 3
MTH 108 Technical Math Applications C 1
MTH 140 Trigonometry 3
PHY 111 Physics I 4
Fall
DFT 111 Architecture I 4
DFT 214 Solid Modeling 4
ENT 205 Circuits and Machines 4
ENT 211 Statics 3

## Winter

DFT 215 Advanced Solid Modeling 3
COM 121 Effective Speaking 3
ENT 213 Strength of Materials 4
--- Co-op or Technical Elective** 2
--- Humanities/Social Science Elective (GA) 3
Spring
DFT 203 Technical Publication 4
--- Co-op or Technical Elective** 4
ECO 110 Economics* 3
SOC 110 Sociology* 3
Total credit hours 95
*Other humanities/social science electives may be substituted (at least one must be a social science and one must fulfill the Global Awareness requirement).
** Students must earn a minimum of 6 credit hours in any combination of co-op (EBE 100, EBE 282 - EBE 284, EBE 292 - EBE 294) or technical electives. Technical electives may come from any course not already prescribed in the following areas: DFT (except DFT 101), ENT, INT or NTK 176.

## Engineering Transfer

The Engineering and Industrial Technologies Transfer program is a calculus-based, pre-engineering curriculum that will prepare a student to transfer into a baccalaureate degree engineering program at a college or university. It serves as a general guideline for transfer. The best selection of courses for a given student will vary depending upon the area of engineering in which the student is interested and the institution to which the student plans to transfer.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory education recommendations. Many individuals, especially part-time students and those taking college preparatory education courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in pre-engineering, a graduate will be able to meet the goals outlined for the general associate of science degree plus the student will be able to:

- formulate the mathematical models for physical and engineering problems.
- analyze the mathematical models of physical and engineering problems.
- formulate kinematics and dynamics problems.
- analyze kinematics and dynamics problems.


## Scholastic Preparation

Students entering this program should have taken all of the high-level mathematics and calculus-based courses offered by their high schools. Students who cannot test into Calculus I will need to take the necessary prerequisite mathematics courses before beginning the calculus sequence. Students should also have taken all of the high school physics and chemistry courses available to them. If they have not had adequate preparation in these areas, they will need to take the prerequisite chemistry (CHM 115) and physics (PHY 110) courses. Students who have not had two years of high school drafting or significant work experience in drafting will be required to take DFT 101, Drafting I.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  | 5 |
| CHM 121 | General Chemistry I | 4 |
| ENG 111 | English I |  |
| HST 111 | Western Civilization to 14th Century | 3 |
| MTH 221 | Calculus I** | 5 |
| Winter |  | 4 |
| DFT 211 | Computer Aided Design I | 4 |
| ENG 112 | English II |  |
| HST 112 | Western Civilization from | 3 |
| MTH 222 | 14th through 18th Century | Calculus II |

## Spring

ENG 230 Great Books: Literature 3
HST 113 Western Civilization from 19th Century to Present3

MTH 223 Calculus III 5
SOC 110 Sociology 3

## Summer

ECO 110 General Economics 3
MTH 240 Linear Algebra 3
PLS 130 Political Issues 3
Fall
MTH 224 Calculus IV/Multivariate Calculus 5
PHY 250 General Physics I*** 6
PSY 111 Psychology I 3
GEO 220 World Regional Geography 3
SOC 220 Comparing Cultures 3

Winter
ENT 261 Engineering Mechanics I
MTH 230 Differential Equations or
CHM 122 General Chemistry II****"
PHY 251 General Physics II
ART 130 Appreciation of the Arts or
MUS 130 Music Appreciation or
THE 130 Introduction to Theatre
Spring
ENT 262 Engineering Mechanics II 5
PHL 250 Great Books: Philosophy 3
PHY 252 General Physics III 5
RST - Regional Studies course 3
Total credit hours 110
*This is a general guideline for Engineering transfer. The best selection of courses for a given student will vary depending upon the actual area of engineering he or she wishes to enter and the college or university to which the student plans to transfer. All engineering transfer students should consult with their engineering academic advisor.
**Students who are not prepared for calculus must take the necessary math prerequisites before MTH 221. Students who need the College Algebra sequence and Trigonometry courses will need three years to progress through the course sequence.
***Students who cannot test out of PHY 110 will need to take that as a prerequisite to PHY 250.
****Some students may wish to complete the 3 -quarter chemistry sequence for transfer purposes.

## Industrial Technology

The Industrial Technology program has been developed in response to the great need expressed by manufacturers in the Champaign, Clark, Greene and Logan County areas for skilled technicians. The program is intended to train for career fields such as machine repair technician or electrical maintenance technician.

Technical coursework in the program is designed such that it can be used to support company-sponsored apprenticeship programs.

In addition to applied technical courses, Industrial Technology includes an optional co-op experience. Students must complete EBE 100, Employability Skills, as a technical elective and then work with Career Services to secure an appropriate co-op site.

## Learning Outcomes

Upon completion of an associate degree in Industrial Technology, a graduate will be able to:

- demonstrate basic knowledge of electrical, mechanical and fluid power machines.
- use commonly available instruments to assist in analysis and troubleshooting of electrical and electrically controlled systems.
- use schematics, operating manuals and troubleshooting guides to troubleshoot equipment.
- design, build and document an industrial project.
- demonstrate a basic knowledge of operating and programming automated systems.
- use computers in troubleshooting, maintenance planning and report writing using application software.


## Directed Learning Laboratory

Clark State Community College has recognized the need for students who are currently working to have flexible class hours. As a result, many of the courses in the Industrial Technology program will be offered in the College's Directed Learning Laboratory. Most Industrial Technology (INT) courses, along with other selected technical courses, will be offered in a modular format that will allow students to come to the lab on their own schedule and complete the coursework and laboratory assignments. The lab will be staffed by a faculty member and is open both day and evening hours to accommodate many working schedules. The days and times that students complete the coursework in the lab is up to the individual student within the open hours of the lab. Some group assignments may be required. The ability to learn on an independent basis will help ensure student success in this program.

## Scholastic Preparation

Students should have had one year of high school algebra or the equivalent. Students may take preparatory courses at Clark State, but it will require a longer amount of time to complete their degree program. Students who have not had two years of high school drafting or significant work experience in drafting will be required to take DFT 101, Drafting I.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

INT 101 Metrology I 2
INT 120 Hydraulics/Pneumatics I 4
DFT 102 Drafting II 3
ENG 111 English I 4
ENT 121 Computer Basics for Applied Technology

## Winter

INT 115 Industrial Calculations 3
INT 125 Hydraulics/Pneumatics II 4
INT 140 Industrial Safety 2
INT 150 Electrical Systems 4
DFT 211 Computer Aided Design I 4

## Spring

INT 155 Motors and Motor Controls 4
INT 170 Mechanical Maintenance 4
COM 111 Interpersonal Communication 3
EBE 100 Employability Skills 2
ENG 112 English II 4
Summer
INT
Co-op or Technical Elective
Fall
INT 251 Programmable Logic Controllers 4
INT 252 Automated Systems 4
NTK 176 Network Essentials I 6
SPN 100 Conversational Spanish* 3

## Winter

INT 255 Electrical Troubleshooting 4
INT 260 Electrical Distribution 4
ENG 223 Technical Report Writing 3
---
Humanities/Social Science Elective
Spring
INT 270 Industrial Machine Maintenance 4
INT 280 Industrial Technology Projects 4
INT -
COM 121 Effective Speaking 3
ECO 110 General Economics* 3
Total credit hours 103
*Other humanities/social science electives may be substituted (at least one must be a social science and one must fulfill the Global Awareness requirement)
** Students must earn a minimum of 8 credit hours in any combination of co-op (EBE 100, EBE 282 - EBE 284, EBE 292 - EBE 294) or technical electives. Technical electives may come from any course not already prescribed in the following areas: DFT (except DFT 101), ENT, INT.

## Manufacturing Engineering Technology

The Manufacturing Engineering Technology program prepares students for a variety of positions within a manufacturing enterprise. The program builds on the student's knowledge of computer-aided design, electronics and manufacturing processes, providing additional skills in areas such as statistical process control, automation and computer numerical control.

In addition to applied technical courses, Manufacturing Engineering Technology includes an optional co-op experience.

Students must complete EBE 100, Employability Skills, as a technical elective and then work with Career Services to secure an appropriate co-op site.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Scholastic Preparation

Students starting the program should have had two years of high school drafting and one year each of high school algebra, trigonometry and physics or the equivalents. Students may take these preparatory courses at Clark State, but they will require a longer amount of time to complete their degree program. Students who have not had two years of high school drafting or significant work experience in drafting will be required to take DFT 101, Drafting I. Those without high school physics must complete PHY 110, Fundamentals of Physics.

## Learning Outcomes

Upon completion of an associate degree in Manufacturing Technology, a graduate will be able to:

- demonstrate basic knowledge of manufacturing processes including fabrication and assembly of metals, plastics, ceramics and composites.
- use basic computer-aided design skills to draw parts, fixtures and equipment layouts.
- demonstrate a basic knowledge of quality assurance.
- demonstrate a basic knowledge of process control including CNC programming and PLC controls.
- demonstrate a basic knowledge of materials properties, manufacturing methods and cost.
- design, build and document an industrial project.


## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

Engineering MethodsComputer Basics forApplied Technology3
Drafting II ..... 3
ENG 111
INT 101 Metrology I ..... 4 ..... 2
MTH 101 Technical Math Applications A ..... 1
Winter
ENT 109ENT 110DFT 211Manufacturing Lab2Manufacturing ProcessesComputer Aided Design IMTH 107Technical Math Applications B3
MTH 121
College Algebra ISpring
ENT 111 Engineering Materials ..... 3
DFT 212 Computer Aided Design II ..... 4
EBE 100 Employability Skills ..... 2
MTH 108 Technical Math Applications C ..... 1
MTH 140 Trigonometry ..... 3
PHY 111 Physics I ..... 4
Summer
ENT 205 Circuits and Machines ..... 4
ENT 210 Engineering Statistics ..... 3
ENT Co-op or Technical Elective** ..... 4
Fall
ENT 211
Statics3
ENT Co-op or Technical Elective** ..... 3
ENG 223 Technical Report Writing ..... 3
INT 215 ..... 3INT 251Programmable Logic Controllers
Winter
ENT 213 Strength of Materials ..... 4
ENT 221 ..... 4
ENTINT 252
Spring
ENT
COM 121Co-op or Technical Elective**4
ECO 110Effective Speaking3
SOC 110 Sociology* ..... 3
Total credit hours ..... 108
*Other humanities/social science electives may be substituted (at least one must be a social science and one must fulfill the Global Awareness requirement).
** Students must earn a minimum of fourteen credit hours in any combination of co-op (EBE 100, EBE 282 - EBE 284, EBE 292 - EBE 294) or technical electives. Technical electives may come from any course not already prescribed in the following areas: DFT (except DFT 101), ENT, INT, or NTK 176.


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4
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$\qquad$
Co-op or Technical Elective** ..... 3
Automated Systems ..... 4
Humanities/Social Science Elective ..... 3

## Mechanical Engineering Technology

The Mechanical Engineering Technology program is designed to prepare students for entry-level technology occupations related to mechanical engineering. These occupations include a variety of jobs titles in the areas of product design, drafting, analysis, manufacturing, quality control and testing. Skills in the area of creating and interpreting engineering drawings and the practices and procedures of manufacturing and principles of product design are emphasized.

Students that might wish to transfer coursework from Clark State to other institutions to earn a bachelor's degree in mechanical engineering should contact the transfer institution very early in their program at Clark State. Students should also consult their academic advisor for help in planning their schedules.
The program schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study.

## Scholastic Preparation

Students starting the program should have had two years of high school drafting and the entire high school highlevel math, trigonometry, chemistry and physics sequences. Students may take these courses at Clark State, but they will require additional time to complete their degree program. Students who have not had two years of high school drafting or significant work experience in drafting will be required to complete DFT101, Drafting I. Those without high school physics must complete PHY110, Fundamentals of Physics.

## Learning Outcomes

Upon completion of an associate degree in Mechanical Engineering Technology a graduate will be able to:

- demonstrate basic knowledge of manufacturing processes including fabrication and assembly of metals, plastics, ceramics and composite materials.
- use basic computer-aided design skills to draw parts, fixtures and equipment layouts.
- demonstrate a basic knowledge of quality assurance.
- demonstrate a basic knowledge of process control including PLC controls and CNC programming.
- demonstrate a basic knowledge of materials properties, manufacturing methods and product cost.
- design, build and document an industrial project.
- formulate and analyze the mathematical models for physical and engineering problems.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | :--- |
| Fall |  | 3 |
| DFT 102 | Drafting II | 3 |
| ENT 101 | Engineering Methods |  |
| ENT 121 | Computer Basics for Applied Technology | 3 |
| ENG 111 | English I | 4 |
| MTH 121 | College Algebra I | 3 |

Course
Credit Hours3
$\begin{array}{lll}\text { DFT } 102 & \text { Drafting II } & 3 \\ \text { ENT } 101 & \text { Engineering Methods } & 3\end{array}$
ENT 121 Computer Basics for Applied Technology3

ENG 111 English I 4
MTH 121 College Algebra I

ENT 110 Manufacturing Processes
ECO 221 Principles of Macroeconomics 3
ENG 112 English II
HST 112* Western Civilization from 14th through 18th Century
MTH 122 College Algebra II 3

## Spring

ECO 222 Principles of Microeconomics 3
ENG 223 Technical Report Writing 3
HST 113* Western Civilization from 19th Century to Present 3
ENT 111 Engineering Materials 3
ENT 210 Engineering Statistics 3
MTH 140 Trigonometry
Summer
COM 121 Effective Speaking 3
SOC 110 Sociology*
Fall
MTH 221 Calculus I 5
PHY 250 General Physics 6
ENT 211 Engineering Statics 3
ENT 205 Circuits and Machines 4

## Winter

DFT 211 Computer Aided Design I 4
MTH 222 Calculus II 5
ENT 213 Strength of Materials 4
PHY 251 General Physics II 5
Spring
MTH 223 Calculus III 5
PHY 252 General Physics III 5
CHM 115 Introduction to General Chemistry 5
Total credit hours 109
This is the general guideline for Mechanical Engineering Technology. Students wishing to seek an Engineering Bachelors Degree at a four-year institution are highly encouraged to review articulation agreements and consult with your engineering academic advisor.

* Other humanities/social science electives may be substituted (at least one must be a social science and one must fulfill the Global Awareness requirement)
**Up to 11 additional quarter hours of ENT Core courses may be required before transfer to a four year Engineering Program. Any of the following courses are recommended: DFT111, DFT212, DFT214, DFT215, ENT221, ENT222, INT251, INT252 or INT280
***If students begin the math series early with Calculus 221, ENT core courses may be substituted for MTH121, 122, or 140


## Computer-Aided Design (CAD) Certificate

The Computer-Aided Design (CAD) Certificate is designed to provide the technical background necessary to produce mechanical drawings using both manual and computer-aided drafting techniques. Manufacturing coursework is included to help students understand the principles of manufacturability in mechanical design.

Certificate programs are designed for those students who seek to enhance their job-related skills in a specialized area. These certificates are typically a portion of the courses in one of the associate degree programs. Certificate programs will take somewhat longer than one year to complete due to the sequence of prerequisites and the terms in which courses are offered. Coursework included in a certificate program may ultimately be applied for the associate degree in the related technology program.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Scholastic Preparation

The amount of time required to complete a certificate program is dependent on the level of student preparation. Students starting the programs should have had one year each of high school algebra, trigonometry, and physics or equivalent. Students electing the Computer-Aided Design (CAD) certificate program should also have had two years of high school drafting. Students who have not had two years of high school drafting or significant work experience in drafting will be required to take DFT 101, Drafting I. Students may take these preparatory courses at Clark State, but it will require a longer amount of time to complete their program.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| DFT 102 | Drafting II | 3 |
| ENG 111 | English I | 4 |
| ENT 101 | Engineering Methods | 3 |
| ENT 121 | Computer Basics for <br>  <br> Applied Technology | 3 |
| INT 101 | Metrology I | 2 |
| MTH 101 | Technical Math Applications A | 1 |
| Winter |  |  |
| DFT 211 | Computer-Aided Design I | 4 |
| ENT 109 | Manufacturing Laboratory | 2 |
| ENT 110 | Manufacturing Processes | 3 |
| MTH 107 | Technical Math Applications B | 1 |
| MTH 121 | College Algebra I | 3 |

## Spring

DFT 212 Computer-Aided Design II 4
ENT 111 Engineering Materials 3
MTH 108 Technical Math Applications C 1
MTH 140 Trigonometry 3

## Fall

DFT 111 Architecture I 4
DFT 214 Solid Modeling 4
Total credit hours 48

## Electronics Certificate

The Electronics Certificate provides an extensive study of solid-state devices and systems for industrial operations.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

Fall
INT 101 Metrology I 2
INT 105 Blueprint Reading and Schematics 3
INT 115 Industrial Calculations 3
INT 150 Electrical Systems 4
$\begin{array}{ll}\text { ENT } 121 & \begin{array}{l}\text { Computer Basics for } \\ \text { Applied Technology }\end{array}\end{array}$
Winter
INT 175 Foundations of Digital Control 4
INT 251 Programmable Logic Controllers 4
COM 121 Effective Speaking 3
EBE 100 Employability Skills 2
ENG 111 English I 4
Spring
INT 155 Motors and Motor Controls 4
INT 212 Electronic Systems 4
INT 252 Automated Systems 4
INT

Summer
INT 225

Winter

INT 115
INT 125
Industrial Calculations

INT 150
Hydraulics/Pneumatics II

INT 170 Mechanical Maintenance
EBE 100
Employability Skills

## Spring

INT 155 Motors and Motor Controls
INT 251 Programmable Logic Controllers
INT Co-op or Technical Elective
COM 121 Effective Speaking
Total credit hours

## Manufacturing Certificate

The Manufacturing Certificate is designed for students who wish to enhance their skills in areas related to manufacturing. Courses in drafting, computer-aided design, programmable logic controllers, automated systems and robotics are included since these skills are needed in new and in updating existing manufacturing processes. The program courses are all included in the Manufacturing Technology associate degree so students can continue with that program after achieving their certificate. Some of the courses are taught in the Directed Learning Lab, so they can fit the student's schedule.

## Scholastic Preparation

The time required for a student to complete the certificate will depend on their level of preparation. They should have high school drafting, algebra, trigonometry and physics or their equivalents. These preparatory courses can be taken at Clark State, but that will increase the time required to complete the program.

| Course <br> Number | Course Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Fall |  |  |
| ENT 101 | Engineering Methods | 3 |
| ENT 121 | Computer Basics for |  |
|  | Applied Technology | 3 |
| DFT 102 | Drafting II | 3 |
| ENG 111 | English I | 4 |
| MTH 101 | Technical Math Applications A | 1 |
| MTH 121 | College Algebra I | 3 |
| Winter |  |  |
| ENT 109 | Manufacturing Lab | 2 |
| ENT 110 | Manufacturing Processes | 3 |
| ENT 205 | Circuits and Machines | 4 |
| DFT 211 | Computer Aided Design I | 4 |
| MTH 107 | Technical Math Applications B | 1 |
| MTH 140 | Trigonometry | 3 |
| Spring |  |  |
| ENG 112 | English II | 4 |
| INT 101 | Metrology I | 2 |
| INT 250 | Programmable Logic Controllers | 3 |
| INT 252 | Automated Systems | 4 |
| MTH 108 | Technical Math Applications C | 1 |
| PHY 111 | Physics I | 4 |
|  | Total credit hours | 52 |

Winter
ENT 109 Manufacturing Lab 2
ENT 110 Manufacturing Processes 3
ENT 205 Circuits and Machines 4
DFT 211 Computer Aided Design I 4
MTH 107 Technical Math Applications B 1
MTH 140 Trigonometry 3

Spring
ENG 112 English II 4
INT 101 Metrology I 2
INT 250 Programmable Logic Controllers 3
INT 252 Automated Systems 4
MTH 108 Technical Math Applications C 1

Total credit hours 52

## Graphic Design <br> Graphic Design

Graphic design is one of the fastest growing and most diverse professions in the communications field. Graphic designers develop a variety of visual communication solutions for clients including magazine and newspaper advertising, annual reports, product packaging, brochures, corporate identity, catalogs, editorial graphics, book covers and posters.

The aim is integration of the conceptual and the technical. Students will develop critical and conceptual thinking abilities so that they can communicate any idea clearly and powerfully. Students will be prepared for the practice of design in the professional context and provided the basis for their continued creative and personal growth. With a problem-solving format, students will develop visual communication skills, explore the integration of type and images through a variety of traditional and computer media and imaginatively deliver messages responsive to the needs of the sender and the receiving audience.

The Graphic Design program is a two-year computer intensive learning experience focusing on industry-standard practices. Dedicated to keeping up with technological advances affecting the visual arts, the program integrates technology with fine arts sensibility.

The program course schedule is designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisor for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Graphic Design, a graduate will be able to:

- utilize QuarkXpress effectively as a layout tool.
- utilize Adobe PhotoShop effectively as an image-editing tool.
- utilize Adobe Illustrator effectively as a vector graphic/ illustration tool.
- verbally communicate ideas, concepts and design knowledge.
- design effectively with type.
- present himself or herself in an organized and professional manner.
- write and design a professional resume and portfolio.
- manage a design problem from conceptualization to a finished layout.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

GPH 100 Introduction to Graphic Design 4
GPH 105 Design Fundamentals 3
ART 111 Drawing I 3
ENG 111 English I 4
MGT 105 Contemporary American Business 3
Winter
GPH 110 Digital Illustration 3
GPH 112 Digital Typography I 3
ART 112 Drawing II 3
ENG 112 English II 4
Humanities/Social Science Elective
3
Spring
GPH 114 Digital Typography II 3
GPH 201 Electronic Imagery I 3
ART 113 Drawing III 3
ART 135 Art History III 3
ENG 223 Technical Report Writing 3
Fall
GPH 120 Logo, Symbol, Corporate ID 3
GPH 202 Electronic Imagery II 3
GPH 211 Computer Layout I 3
PHL 220 Business Ethics 3
MGT 106 Organizational Behavior 4

## Winter

GPH 203 Electronic Imagery III 3
GPH 212 Computer Layout II 3
GPH 220 Illustration Techniques 3
ITS 230 Introduction to Web Design 3
GPH 251 Professional Development I 3
Spring
GPH 205 Advertising Layout 3
ITS 231 Web Page Multimedia 3
GPH 252 Professional Development II 3
GPH 285 Graphic Design Internship 3
Social Science Elective 3
Total credit hours 94
Note: It is extremely important that students save all artwork from the first quarter forward to enable them to build a portfolio in GPH 251 and GPH 252.

## Management

## Management Technology

The Management curriculum provides a well-rounded education consisting of basic courses in accounting, information technology, economics, finance, business law, management, marketing operations, interpersonal and customer service skills and communications. The associate degree in Management provides students with knowledge and skills for managing people, finances and operations.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

Students with significant business experience, where expertise equals or exceeds the outcomes of a particular course(s), are offered two options for earning experiential credit. Proficiency exams are available for selected courses. Other courses may allow a student to potentially earn credit through a portfolio presentation.

Students who would like to enhance a degree in any field or those who do not plan to complete an associate degree in Management may select an abbreviated education by completing the course requirements for any of several certificate programs in Marketing and E-Business, Human Resources Management, Logistics and Supply Chain Management, Management, Small Business, Customer Service and Supervision. Courses taken completing these certificates can be counted in the relevant degree programs.

## Learning Outcomes

Upon completion of an associate degree in Management, a graduate will be able to do the following:

- apply basic business and management concepts, skills and tools.
- effectively use communications and human relations knowledge and skills.
- analyze quantitative data.
- demonstrate understanding of social responsibility, ethical and legal issues.
- demonstrate understanding of international business issues.
- effectively use information technology skills in the business environment.


## Degree Availability

The Management program is available during the day and the evening. Students should consult with an advisor for the recommended sequencing of courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

## Fall

MGT 105 Contemporary American Business 3
MGT 106 Organizational Behavior 4
ACC 111 Principles of Accounting I 4
ENG 111 English I 4
ITS 103 Information Technology Basics* 3

## Winter

MGT 112 Principles of Management 4
ACC 112 Principles of Accounting II 4
COM 121 Effective Speaking 3
ENG 135 Business Report Writing**** or
ENG 112 English II
ITS 12P Beginning Presentation Graphics* 1
ITS 12S Beginning Spreadsheet*

## Spring

MGT 202 Quality Management 4
HRM 225 Human Resource Management 3
ACC 113 Principles of Accounting III 4
ENG 221 Business Communications 3
ITS 12D Beginning Database* 1
MTH 106 Business Mathematics 3
Fall
MGT 266
STT 264 Statistics I
MGT 200
ECO 221
-CO 221 Principles of Macrocconomics
PSY 111 Psychology I 3
-- Technical Elective or Co-op** 3

## Winter

MGT 260
MGT 270
Legal Environment of Business
3
Business Finance 4
Principles of Marketing
4
LSC 272 Operations and Supply
Chain Management 5
Humanities/Social Science

Elective (GA)***
3

## Spring

MGT 250 Leadership in Organizations 4
MGT 265 Negotiation Skills 3
MGT 290 Business Strategy and Policy Seminar 4
ECO 222 Principles of Microeconomics 3

- Humanities/Social Science Elective*** 3

Total credit hours106
*Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.
**Technical electives must total 3 credit hours. They can come from any combination of courses not already prescribed
that use the following course codes: HRM, LSC ,MGT, MKT, ACC, CSD, EBE (except EBE 110), ITS (except ITS 080, ITS 081 or other college prep level course), NTK, OAD, RES.
***ECO 110 is not acceptable for a social science elective; at least one humanities or one social science elective must be designated as a global awareness (GA) course.
****ENG 135 will not necessarily transfer as the equivalent of ENG 112 .

## CyberSecurity Management Option

The Management curriculum provides a well-rounded education consisting of basic courses in accounting, information technology, economics, finance, business law, management, marketing operations, interpersonal and customer service skills and communications. The CyberSecurity Management option provides insight into the information security threats faced by all business organizations. This option prepares students to manage corporate data assets in a secure and legally responsible way.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

Students with significant business experience, where expertise equals or exceeds the outcomes of a particular course(s), are offered two options for earning experiential credit. Proficiency exams are available for selected courses. Other courses may allow a student to potentially earn credit through a portfolio presentation.
Students who would like to enhance a degree in any field or those who do not plan to complete an associate degree in Management may select an abbreviated education by completing the course requirements for any of several certificate programs in Marketing and E-Business, Human Resources Management, Logistics and Supply Chain Management, Management, Small Business, Customer Service and Supervision. Courses taken completing these certificates can be counted in the relevant degree programs.

## Learning Outcomes

Upon completion of an associate degree in Management, a graduate will be able to do the following:

- apply basic business and management concepts, skills and tools.
- effectively use communications and human relations knowledge and skills.
- analyze quantitative data.
- demonstrate understanding of social responsibility, ethical and legal issues.
- demonstrate understanding of international business issues.
- demonstrate understanding of cybersecurity management and technical issues.


## Degree Availability

The Management program is available during the day and the evening. Students should consult with an advisor for the recommended sequencing of courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

Fall
MGT 105
MGT 106
ACC 111
ENG 111
ITS 103
Winter
MGT 112
ACC 112
COM 121 Effective Speaking
ENG 135 Business Report Writing**** or
ENG 112 English II
ITS 12P Beginning Presentation Graphics* 1
ITS 12 Beginning Spreadsheet* 1
Spring
MGT 202 Quality Management 4
HRM 225 Human Resource Management 3
ACC 113 Principles of Accounting III 4
ENG 221 Business Communications 3
ITS 12D Beginning Database* 1
MTH 106 Business Mathematics 3
Fall
MGT 266 Quantitative Business Methods or
STT 264 Statistics I
4
MGT 211 CyberSecurity Management I 5
PSY 111 Psychology I
3
Technical Elective or Co-op 3
Humanities/Social Science Elective3

## Winter

MGT 212 CyberSecurity Management II 5
MGT 260 Legal Environment of Business 3
ECO 222 Principles of Microeconomics 3
LSC 272 Operations and Supply Chain Management 5
MKT 200 Principles of Marketing 4
Spring
MGT 250 Leadership in Organizations 4
MGT 290 Business Strategy and Policy Seminar 4
NTK 246 CyberSecurity - Firewall Technologies or
NTK 247 CyberSecurity - Forensic Analysis 5

-     - 

| Contemporary American Business | 3 |
| :--- | :--- |
| Organizational Behavior | 4 |
| Principles of Accounting I | 4 |
| English I | 4 |
| Information Technology Basics* | 3 |
|  |  |
| Principles of Management | 4 |
| Principles of Accounting II | 4 |
| Effective Speaking | 3 |
| Business Report Writing**** or | 4 |
| English II |  |
| Beginning Presentation Graphics* | 1 |
| Beginning Spreadsheet* | 1 |

$$
(\mathrm{GA})^{* * *}
$$3

CyberSecurity - Forensic Analysis
Humanities/Social Science Elective***3


*Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102 Keyboarding/Word Processing.
**Technical electives must total 3 credit hours. They can come from any combination of courses not already prescribed that use the following course codes: HRM, LSC ,MGT, MKT, ACC, CSD, EBE (except EBE 110), ITS (except ITS 080, ITS 081 or other college prep level course), NTK, OAD, RES. ***ECO 110 is not acceptable for a social science elective; at least one humanities or one social science elective must be designated as a global awareness (GA) course.
****ENG 135 will not necessarily transfer as the equivalent of ENG 112.

## Human Resource Management Option

The Human Resource Management option provides students with a well-rounded education. It consists of basic management courses complemented with in-depth studies of staffing, training and development, employment law and compensation and benefits. The program culminates with a discussion of current human resource management trends. The Human Resource Management curriculum is designed to equip students with knowledge and practical skills for managing a company's human resource function.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

Students with significant business experience, where expertise equals or exceeds the outcomes of a particular course(s), are offered two options for earning experiential credit. Proficiency exams are available for selected courses. Other courses may allow a student to potentially earn credit through a portfolio presentation.

Students who would like to enhance a degree in any field or those who do not plan to complete an associate degree may select an abbreviated education by completing the course requirements for any of several certificate programs in Human Resource Management, Marketing and E-Business, Logistics and Supply Chain Management, Management, Small Business, Customer Service and Supervision. Courses taken completing these certificates can be counted in the relevant degree program.

## Learning Outcomes

Upon completion of an associate degree in the Human Resource Management option, a graduate will be able to do the following:

- apply basic business and management concepts, skills and tools.
- effectively use communications and human relations knowledge and skills.
- analyze quantitative data.
- demonstrate understanding of social responsibility, ethical
and legal issues.
- demonstrate understanding of international business issues.
- effectively use information technology skills, including the use of Internet resources and tools.
- apply knowledge and skills in four functional areas of human resources including staffing, training and development, employment law, and compensation and benefits.
Course
Course
Credit
Number
Title
Hours

MGT 105
MGT 106
Contemporary American Business
3

ACC 111
ENG 111
ITS 103
Organizational Behavior
4
4
4
3

## Winter

MGT 112
ACC 112
COM 121
ENG 135
ENG 112
ITS 12P
ITS 12 S
Principles of Management
Principles of Accounting II
Effective Speaking
4
4
3
Business Report Writing**** or English II

4
Beginning Presentation Graphics*
Beginning Spreadsheet*

## Spring

HRM 225
MGT 202
Human Resource Management
3

ENG 221
Quality Management
4
3
ITS 12D
MTH 106
Beginning Database*
1

SOC 110
Business Mathematics
3
Sociology

## Fall

HRM 230 Training and Development 3
HRM 235 Employment Law 3
MGT 266 Quantitative Business Methods or
STT 264 Statistics I
ECO 221 Principles of Macroeconomics 3
PSY 111 Psychology I
Technical Elective or EBE 100

## Winter

HRM 240
Staffing
4
HRM 245 Compensation and Benefits 3
MGT 260 Legal Environment of Business 3
MKT 200 Principles of Marketing 4
--
Humanities/Social Science elective (GA) 3
Spring
HRM 270 Human Resource Management Trends
MGT 250 Leadership in Organizations
MGT 265 Negotiation Skills
MGT 290 Business Strategy and Policy Seminar 4
Technical Elective or Co-op
Total credit hours
*Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing, before taking a computer class.
**Technical electives must total 6 credit hours. They can come from any combination of courses not already prescribed that use the following course codes: HRM, LSC ,MGT, MKT, ACC, CSD, EBE (except EBE 110), ITS (except ITS 080, ITS 081 or other college prep level course), NTK, OAD, RES. ***ECO 110 is not acceptable for a social science elective; at least one humanities elective or one social science elective must be designated as a global awareness (GA) course.
****ENG 135 will not necessarily transfer as the equivalent of ENG 112 .

## Logistics and Supply Chain <br> Management Option

The Logistics and Supply Chain Management option provides a well-rounded education consisting of basic management courses enhanced with concentrated studies in purchasing, logistics, negotiation and inventory and materials management. The associate degree in Logistics and Supply Chain Management provides students with foundational knowledge and skills for managing the logistics and supply chain functions in a company's operations.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

Students with significant business experience, where expertise equals or exceeds the outcomes of a particular course(s), are offered two options for earning experiential credit. Proficiency exams are available for selected courses. Other courses may allow a student to potentially earn credit through a portfolio presentation.

Students who would like to enhance a degree in any field or those who do not plan to complete an associate degree in Logistics and Supply Chain Management may select an abbreviated education by completing the course requirements for any of several certificate programs in Marketing and E-Business, Human Resources Management, Logistics and Supply Chain Management, Management, Small Business, Customer Service and Supervision. Courses taken completing these certificates can be counted in the relevant degree programs.

## Learning Outcomes

Upon completion of an associate degree in Logistics and Supply Chain Management, a graduate will be able to do the following:

- apply basic business and management concepts, skills and tools.
- effectively use communications and human relations knowledge and skills.
- analyze quantitative data.
- demonstrate understanding of social responsibility, ethical and legal issues.
- demonstrate understanding of international business issues.
- effectively use information technology skills in the business environment.
- effectively use knowledge and skills in inventory and materials management, purchasing and supply strategies, negotiation strategies and logistics and physical distribution.


## Degree Availability

The Logistics and Supply Chain Management program is available during the day and the evening. Students should consult with their advisor for the recommended sequencing of courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

ACC 111 Principles of Accounting I 4
ENG 111 English I
ITS 12S Beginning Spreadsheet*
ITS 103 Information Technology Basics*
MGT 105 Contemporary American Business
MTH 106 Business Mathematics

## Winter

ENG 135 Business Report Writing **** or
ENG 112 English II
MGT 106 Organizational Behavior 4
MGT 112 Principles of Management 4
MKT 200 Principles of Marketing 4
ITS 12P Beginning Presentation Graphics*
Spring
LSC 210 Purchasing \& Supply Management 4
ENG 221 Business Communications 3
ITS 12D Beginning Database* 1
MGT 202 Quality Management 4
MGT 268 Introduction to International Business 3
PSY 111 Psychology I
Fall
LSC 220 Logistics \& Physical Distribution 4
Technical Elective or EBE 100** 2
ECO 221 Principles of Macroeconomics
MGT 266 Quantitative Business Methods or
STT 264 Statistics I

-     - Humanities/Social Science Elective (GA)***

LSC $272 \begin{aligned} & \text { Operations \& Supply Chain } \\ & \text { Management }\end{aligned}$
COM 121 Effective Speaking 3
MGT 260 Legal Environment of Business 3
MKT 240 Electronic Business Applications 4
--
Technical Elective or Co-op**

Spring
LSC 275 Inventory \& Materials Management 4 Technical Elective or Co-op** 2
MGT 265 Negotiation Skills
MGT 290 Business Strategy and Policy Seminar 4 Humanities/Social Science Elective*** 3

Total credit hours
*Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing, before taking a computer class.
**Technical electives must total 7 credit hours. They can come from any combination of courses not already prescribed that use the following course codes: HRM, LSC ,MGT, MKT, ACC, CSD, EBE (except EBE 110), ITS (except ITS 080, ITS 081 or other college prep level course), NTK, OAD, RES. ***ECO 110 is not acceptable for a social science elective; at least one humanities elective or one social science elective must be designated as a global awareness (GA) course. ****ENG 135 will not necessarily transfer as the equivalent of ENG 112 .

## Marketing and E-Business Option

The Marketing and E-Business option provides students with a well-rounded education. It includes a strong foundation in marketing and electronic business, highlighting each of the four "P's" to provide the knowledge and skills necessary for marketing and e-business management.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

Students with significant business experience, where expertise equals or exceeds the outcomes of a particular course(s), are offered two options for earning experiential credit. Proficiency exams are available for selected courses. Other courses may allow a student to potentially earn credit through a portfolio presentation.

Students who would like to enhance a degree in any field or those who do not plan to complete an associate degree in Marketing and E-Business may select an abbreviated education by completing the course requirements for any of several certificate programs in Marketing and E-Business, Logistics and Supply Chain Management, Management,

Small Business, Customer Service and Supervision. Courses taken completing these certificates can be counted in the relevant degree programs.

## Learning Outcomes

Upon completion of an associate degree in Marketing and E-Business, a graduate will be able to do the following:

- apply basic business and management concepts, skills and tools.
- effectively use communications and human relations knowledge and skills.
- analyze quantitative data.
- demonstrate understanding of social responsibility, ethical and legal issues.
- demonstrate understanding of international business issues.
- use information technology skills, including the use of Internet resources and tools.
- apply knowledge and skills in the four "P's" of marketing: product management, promotional strategies, pricing strategies and logistics \& physical distribution.
- apply electronic business theories and concepts.


## Degree Availability

The Marketing and E-Business option is available during the day and in the evening. Students should consult with their advisor for the recommended sequencing of courses.

Humanities/Social Science Electives
A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

ACC 111
ENG 111
ITS 12S
Principles of Accounting I
4

ITS 103 Information Technology Basics* 3
MGT 105 Contemporary American Business 3
MTH 106 Business Mathematics 3

## Winter

MKT 200 Principles of Marketing 4
ACC 112 Principles of Accounting II 4
ENG 221 Business Communications 3
MGT 112 Principles of Management 4

-     - 


## Spring

ENG 135 Business Report Writing**** or
ENG 112 English II
ITS 12D Beginning Database*
MGT 106 Organizational Behavior
MGT 202 Quality Management 4
PSY 111 Psychology I 3

- Technical Elective or EBE 1002


## Fall

MKT 210 Pricing Strategies 4
MKT 215 Product Management 3
ITS 12P Beginning Presentation Graphics* 1
LSC 220 Logistics \& Physical Distribution 4
MGT 266 Quantitative Business Methods or STT 264 Statistics I

- Technical Elective or Co-op


## Winter

MKT 240 Electronic Business Applications 4
MKT 255 Promotion Strategies 4
COM 121 Effective Speaking 3
ECO 221 Principles of Macroeconomics 3
MGT 260 Legal Environment of Business 3

## Spring

MKT 245 Sales and Sales Management 3
MGT 250 Leadership in Organizations 4
MGT 265 Negotiation Skills 3
MGT 290 Business Strategy and Policy Seminar 4

- .

Humanities/Social Science Elective (GA)***3

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\text { Total credit hours } 106
$$

*Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.
**Technical electives must total 4 credit hours. They can come from any combination of courses not already prescribed that use the following course codes: HRM, LSC ,MGT, MKT, ACC, CSD, EBE (except EBE 110), ITS (except ITS 080, ITS 081 or other college prep level course), NTK, OAD, RES. ***ECO 110 is not acceptable for a social science elective; at least one humanities elective or one social science elective must be designated as a global awareness (GA) course.
****ENG 135 will not necessarily transfer as the equivalent of ENG 112 .

## Management Certificate

The Management certificate provides students with an overview of the business environment and a background for understanding and managing people. It provides them with the foundational knowledge of accounting and financial issues needed by all managers. All courses taken for this certificate are applicable to the associate degree in Management.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking
college preparatory courses, will require additional quarters of study. Students should consult their academic advisor for help in planning their schedules.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| MGT 105 | Contemporary American Business | 3 |
| ACC 111 | Principles of Accounting I | 4 |
| ENG 111 | English I | 4 |
| ITS 103 | Information Technology Basics* | 3 |
| MTH 106 | Business Mathematics | 3 |
| Winter |  |  |
| MGT 106 | Organizational Behavior | 4 |
| MGT 112 | Principles of Management | 4 |
| ACC 112 | Principles of Accounting II | 4 |
| ENG 135 | Business Report Writing*** or | 4 |
| ENG 112 | English II | 4 |
| ITS 12S | Beginning Spreadsheet* | 1 |
| ITS 12P | Beginning Presentation Graphics* | 1 |
|  |  |  |
| Spring |  | 4 |
| MGT 202 | Quality Management | 3 |
| -- | Technical Elective** | 4 |
| ACC 113 | Principles of Accounting III | 3 |
| COM 121 | Effective Speaking |  |
| ENG 221 | Business Communications | 3 |
| ITS 12D | Beginning Database* | 1 |
|  |  | 53 |

*Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.
**Technical electives must total 3 credit hours. They can come from any combination of courses not already prescribed that use the following course codes: MGT, MKT, LSC, ACC, CSD, EBE (except EBE 110), ITS (except ITS 080), NKT, OAD, RES.
***ENG 135 will not necessarily transfer as the equivalent of ENG 112 .

## Management Departmental Certificates

## Customer Service Certificate

This certificate is focused on developing the essential skills and knowledge needed by anyone desiring to provide excellent service to customers, both internal and external. This is particularly focused on meeting needs and expectations of an organization's customers. All courses can be applied to the associate degree in Management.

Course
Number
Course

MGT 105 Contemporary American Business
Credit Hours

MGT 106
Organizational Behavior
MGT 112
MGT 202
MKT 200
Principles of Management

MKT 245
ITS 103 Information Technology Basics
PSY 111 Psychology I
Total credit hours

## Human Resource Management Certificate

This certificate is focused on developing the essential knowledge and skills needed by an individual who wants to work in the human resource field. All courses can be applied to the Human Resource Management Option of the Associate Degree in Management.

Course
Number
Course
Title
HRM 225 Human Resource Management
Credit Hours

HRM 230 Training and Development
HRM 235 Employment Law
HRM 240 Staffing
HRM 245 Compensation and Benefits
HRM 270 Human Resource Management Trends
ACC 111 Principles of Accounting I
ENG 135 Business Report Writing
ENG 135 Business Report Writing 4
ENG 221 Business Communications 3
ITS 103 Information Technology Basics 3
ITS 12P Beginning Presentation Graphics 1
MGT 105 Contemporary American Business 3
MGT 106 Organizational Behavior 4
MGT 112 Principles of Management 4
MGT 202 Quality Management 4
MGT 260 Legal Environment of Business 3
MGT 265 Negotiation Skills 3
MGT 266 Quantitative Business Methods 4
MTH 106 Business Mathematics 3
Total credit hours 61

## Logistics and Supply Chain Management Certificate

This certificate is focused on developing essential knowledge and skills needed by an individual who wants to work in the acquisition and/or distribution of materials and products. All courses can be applied to the associate degree in Logistics and Supply Chain Management.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

LSC 210
LSC 220
LSC 272

LSC 275 Inventory and Materials Management
ACC 111 Principles of Accounting I 4
ITS 12D Beginning Database 1
ITS 12 Beginning Spreadsheet 1
ITS 103 Information Technology Basics 3
MGT 105 Contemporary American Business 3
MGT 106 Organizational Behavior 4
MGT 112 Principles of Management 4
MGT 202 Quality Management 4
MGT 260 Legal Environment of Business 3
MGT 265 Negotiation Skills 3
MGT 266 Quantitative Business Methods or
STT 264 Statistics I
MTH 106 Business Mathematics 3
Total credit hours

## Marketing E-Business Certificate

This certificate is focused on developing the essential knowledge and skills needed by an individual who wants to work in the marketing field. All courses can be applied to the associate degree in Marketing and E-Business.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MKT 200 | Principles of Marketing | 4 |
| MKT 210 | Pricing Strategies | 4 |
| MKT 215 | Product Management | 3 |
| MKT 240 | Electronic Business Applications | 4 |
| MKT 255 | Promotion Strategies | 4 |
| ACC 111 | Principles of Accounting I | 4 |
| ITS 12D | Beginning Database | 1 |
| ITS 12S | Beginning Spreadsheet | 1 |
| ITS 103 | Information Technology Basic | 3 |
| LSC 220 | Logistics and Physical Distribution | 4 |
| MGT 105 | Contemporary American Business | 3 |
| MGT 112 | Principles of Management | 4 |
| MGT 202 | Quality Management | 4 |
| MGT 266 | Quantitative Business Methods or |  |
| STT 264 | Statistics I | 4 |
| MTH 106 | Business Mathematics | 3 |

## Small Business Certificate

This certificate is focused on developing the essential knowledge needed by an individual who wants to start a small business. It will provide the student with the necessary tools for developing a successful business operation. All courses can be applied to the associate degrees in Management or Marketing and E-Business.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MGT 105 | Contemporary American Business | 3 |
| MGT 106 | Organizational Behavior | 4 |
| MGT 112 | Principles of Management | 4 |
| MGT 214 | Small Business Theory and Practice | 4 |
| MGT 202 | Quality Management | 4 |
| MGT 250 | Leadership in Organizations | 4 |
| MGT 260 | Legal Environment of Business | 3 |
| MKT 200 | Principles of Marketing | 4 |
| MKT 240 | Electronic Business Applications | 4 |
| MKT 245 | Sales/Sales Promotion | 3 |
| ACC 111 | Principles of Accounting I | 4 |
| ACC 112 | Principles of Accounting II | 4 |
| ITS 103 | Information Technology Basics | 3 |
|  |  |  |
|  | Total credit hours | 48 |

## Supervisory Certificate

This certificate is focused on developing the essential skills and knowledge needed by first-line supervisors. It will provide an individual the tools with which to motivate, challenge and manage employees. All courses can be applied to the associate degree in Management.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MGT 105 | Contemporary American Business | 3 |
| MGT 106 | Organizational Behavior | 4 |
| MGT 112 | Principles of Management | 4 |
| MGT 202 | Quality Management | 4 |
| HRM 225 | Human Resource Management | 3 |
| MGT 250 | Leadership in Organizations | 4 |
| ACC 111 | Principles of Accounting I | 4 |
| ITS 103 | Information Technology Basics | 3 |
| PSY 111 | Psychology I | 3 |
|  |  |  |
|  | Total credit hours | 32 |

Course
MGT 105
MGT 106
MGT 112
Principles of Management
urs

## Credit

Hours

## Medical Laboratory Medical Laboratory Technology

Medical Laboratory is a career opportunity in the laboratory. Two-year associate degree programs with supervised clinical experience in approved laboratories provide the opportunity to enter this challenging, ever-changing career.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory requirements, will require additional quarters of study. Students should consult the MLT program advisor for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Medical Laboratory, a graduate will be able to:

- write clearly and accurately in a variety of contexts and formats.
- verbally communicate clearly and accurately in a variety of contexts and formats.
- display professional characteristics.
- select and use appropriate, safe and effective tools to solve a variety of problems pertaining to collecting, handling and conducting tests on samples and to perform corrective and preventative maintenance on instruments.
- demonstrate the ability to think critically by assessing proper correlation between the results and predetermined values, by performing quality control activities, by relating laboratory results to common disease process and by drawing and defending reasonable conclusions.
- demonstrate an awareness of cultural diversity as pertaining to both patients and peers.


## Course Format

Each MLT course is composed of two required componentsan online lecture component and a lab component, which may be taught at the College or another college-approved supervised site. Off campus lab sites for distance students must be secured by the student and approved by the MLT Program Director prior to entry into the program. A suitable directed practice site is found for each student in the program by the MLT Program Director with the assistance of the Health and Human Services Division of Clark State Community College.

## Scholastic Preparation

Entry into the program is on a space-limited basis. Students must petition for admission. To be eligible to petition, students must successfully complete reading, math and algebra placement tests or obtain a grade of $C$ or better on the appropriate college preparatory (CPE) course.

## Health and Clinical Requirements

All Medical Laboratory Technology students must meet health requirements by the beginning of the fifth quarter that the student is in the program in order to meet requirements
for the directed practice course. Specific information will be provided prior to the directed practice course.

Distance students completing lab courses in clinical agencies will be required to complete health requirements prior to their first lab course.

A criminal background check and other requirements may be necessary depending on clinical site placement.

All students are strongly encouraged to complete Hepatitis B immunizations prior to entry into the first MLT course.

Applicants must be physically and emotionally able to fulfill the functions of the medical laboratory technician.

## Liability Insurance

Students will be billed for liability insurance for each year of courses.

Graduation Requirements
To qualify for an associate degree, a Medical Laboratory student must pass all the required courses, have a cumulative average of 2.0 and must have a $C$ as a minimum grade in all the technical courses of the program.

## Certification

Upon completion of the accredited program, graduates are eligible to take the national certifying examination. This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Ave., Suite 670, Chicago, Illinois, 60631; telephone 773-714-8880; www.naacls.org.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

Fall and Winter
MLT 101 Medical Laboratory Orientation ..... 2
MLT 102 Medical Laboratory Orientation Lab ..... 1
MLT 111 Chemistry for Technicians ..... 3
MLT 116 Phlebotomy ..... 2
MLT 117 Phlebotomy Laboratory ..... 2
BIO 105 Fundamentals of Anatomy and Physiology ..... 4
ENG 111 English I
Winter and Spring
MLT 131 Clinical Chemistry ..... 3
MLT 132 Clinical Chemistry Lab ..... 3
MLT 135 Urinalysis and Body Fluids ..... 2
MLT 136 Urinalysis and Body Fluids Lab ..... 2
ENG 112 English II ..... 4
ITS 103 Information Technology Basics ..... 3
Spring and Summer
MLT 123 Medical Microbiology I ..... 3
MLT 124 Medical Microbiology I Lab ..... 2
MLT 125 Hematology I ..... 3
MLT 126 Hematology I Lab ..... 3
COM 111 Interpersonal Communication ..... 3
PSY 111 Psychology I ..... 3
Summer and Fall
MLT 211 Immunology ..... 3
MLT 212 Immunology Lab ..... 1
MLT 213 Medical Microbiology II ..... 3
MLT 214 Medical Microbiology II Lab ..... 3
ENG 221 Business CommunicationsHumanities/Social ScienceElective(GA)3
Fall and Winter
MLT 223 Hematology II ..... 3
MLT 224 Hematology II Lab ..... 3
MLT 226 Immunohematology ..... 4
MLT 227 Immunohematology Lab ..... 4

-     - Humanities/Social Science Elective ..... 3
Winter and Spring
MLT 270 MLT Review \& Update ..... 4
MLT 280 Directed Practice ..... 8
MLT 290 Seminar ..... 4
Total credit hours ..... 101


## Multi-Skilled Health Care Multi-Skilled Health Care Certificate

The Multi-Skilled Health Care certificate program is designed for individuals who are currently working in health care or who wish to enter the health care field. This program provides an introduction to the health care environment and provides training in more than one health care skill in order to meet the ever changing needs of the health care delivery system. Upon completion of this certificate students will have the skills needed to obtain employment in a variety of health care settings.

Students complete core courses and select courses from different specialty areas. The flexibility of the program allows students to choose specialty courses that meet their individual interests and needs. Many of these specialty areas have national certification or state licensure. Students who complete these specialty courses will be eligible to sit for the appropriate certification or licensure examinations.

Courses within this program can also be taken by students in other degree or certificate programs and by health care professionals who wish to expand their knowledge/skills and/or increase marketability for employment.

Many of the courses within this program also meet course requirements for a variety of the College's associate degree programs. Students who wish to complete an associate degree may also choose the associate of technical studies option to select the courses which match their interests and/or career goals.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

Non-academic requirements:

## Students:

- must meet specified health requirements prior to enrolling in clinical or directed practice courses.
- will be billed for liability insurance when registering for specified clinical or directed practice courses.
- may be required to obtain a criminal background check prior to enrolling in specified clinical or directed practice courses.

Students should also be aware that clinical/directed practice sites may also require:

- random drug screening.
- HIV testing, if exposed to blood-borne pathogens.
- submission to treatment/counseling, if exposed to infectious diseases.


## Certificate Requirements

To qualify for a certificate in Multi-Skilled Health Care students must pass all required courses, must obtain a grade of "C" or better in all technical courses and have a minimum cumulative GPA of 2.0.

## Fall

MST 101 Introduction to Health Care 3
MST 104 Foundations of Client Care
EMS 171 Basic Life Support (Professional CPR) 1
BIO 102 Medical Terminology

- Technical Elective(s)* 6


## Winter

BIO 105 Fundamentals of Anatomy and Physiology
ENG 111 English I 4
PSY 111 Psychology I
ITS 103 Information Technology Basics
.- Technical Elective(s)* 4
Spring
SWK 136 Affective Education** 4
-- Basic or Humanities/Social $\begin{aligned} & \text { Science Elective*** }\end{aligned}$

-     - Basic or Humanities/Social

Science Elective***

- Technical Elective(s)* 8

Total credit hours
*Students must choose a total of 18 credit hours of technical elective course work from the following specialty areas. Students must choose courses from at least two different areas and should verify that course prerequisites have been met prior to registering for a course.

## Diagnostic Procedures

- MLT 116 Phlebotomy (2 credits) (must also register for MLT 117)
- MLT 117 Phlebotomy Lab (2 credits) (must also register for MLT 116)
- MST 171 Principles of Electrocardiography (3 credits)


## Direct Patient Care

- MST 181 Nurse Aide Training (6 credits)
- MST 182 Patient Care Technician (4 credits)
- LPN 108 Basic Nutrition and Diet Therapy (2 credits)


## Emergency Care

- EMS 110 Health and Health Emergencies (3 credits)
- EMS 100 EMT-Basic (8 credits)
- EMS 250 EMS Legal Insights (2 credits) (must have EMT Basic certification)


## Chemical Dependency

- SWK 105 Chemical Dependency I: Pharmacology/Physiology of Psychoactive Substances (4 credits)
- SWK 205 Chemical Dependency II: Counseling Techniques (4 credits)
- SWK 217 Chemical Dependency III: Special Populations (4 credits)
- EBE 100 Employability Skills (2 credits)
- SWK 220 Social Services to Individuals with MR/DD (3 credits)
- OAD 135 Office Procedures (4 credits)
- MST - - - Special Topics in Health Care (1-3 credits)
**May take COM 111 Interpersonal Communications (3 credit hours) instead of SWK 136 Affective Education.
***Please choose from the following courses for your Basic or Humanities/Social Science electives:
- BIO 131 Microbiology (4 credits)
- PSY 112 Psychology II (3 credits)
- SOC 110 Sociology (3 credits)
- SPN 100 Conversational Spanish I (3 credits)
- SPN 102 Conversational Spanish II (3 credits)
- PHL 230 Medical Ethics**** (3 credits)
- PSY 221 Human Growth and Development I*** (3 credits) or PSY 223 Lifespan Human Growth and Development **** (5 credits)
- PSY 222 Human Growth and Development II**** (3 credits) or PSY 223 Lifespan Human Growth and Development **** (5 credits)
- SOC 220 Comparing Cultures**** (3 credits)
- SOC 230 Social Problems**** (3 credits)
- SOC 240 Racial and Cultural Minorities**** (3 credits)
****Note: Due to the writing intensive nature of these courses, the student must have already completed or be concurrently enrolled in ENG 112-English II to enroll in these courses.


## Health Care Department Certificates

Various departmental certificates are available for students who want to obtain skills in one specialty health area. These certificates can be applied for through the Health and Human Services Division Office in the Applied Science Center and include:

## Chemical Dependency Certificate

See Social Services

## Electrocardiography Certificate

This certificate/area of specialization is focused on providing students with the basic knowledge and skills needed to perform an electrocardiogram (ECG). Knowledge and skills learned will include basic cardiac anatomy and physiology, basic ECG interpretation, identification of common abnormal tracings and equipment operation, troubleshooting and recording of rhythm strips and multi-lead ECGs. All courses can be applied to the Multi-Skilled Health Care one-year certificate program. Courses can also enhance the skills of students in the associate degree nursing programs.
Course Course
Number Title
Credit
Hours
Hours
BIO 102 Medical Terminology ..... 3
BIO 105 Fundamentals of Anatomyand Physiology4
EMS 171 Basic Life Support(Professional CPR)1
MST 171 Introduction to Electro- cardiography ..... 3
Total credit hours11
EMT-Basic Certificate
See Emergency Medical Services
EMT-Intermediate Certificate
See Emergency Medical Services
EMT-Paramedic Certificate
See Emergency Medical Services

## Nurse Aide Certificate

The Nurse Aide Training course is a six credit-hour course that incorporates both classroom and skills lab instruction and includes 24 clinical hours in a long-term care facility at the end of the course. Students must complete specific health requirements prior to participating in clinical and will be billed for liability Insurance when registering for the course.

Successful completion of this course within two years of entry into the first clinical nursing course of the LPN and RN programs meets the prerequisite nurse aide requirement of these programs. After completing the course, students are eligible to sit for the written and skills state certification
test. Successful completion of the state certification test is an employment requirement for hire as a nurse aide in Ohio's long-term care facilities.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

MST 181 Nurse Aide Training
6

## Patient Care Technician Certificate

This certificate/area of specialization is focused on providing students with the skills needed to provide direct patient care to clients in acute care settings under the direction and supervision of a registered nurse. All courses can be applied to the Multi-Skilled Health Care one-year certificate program.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MST 101 | Introduction to Health Care | 3 |
| MST 104 | Foundations of Client Care <br> ITS 103 | Information Technology <br> Basics |
| EMS 171 | Basic Life Support <br> (Professional CPR) | 3 |
| MST 181 | Nurse Aide Training* | 1 |
| BIO 102 | Medical Terminology |  |
| BIO 105 | Fundamentals of Anatomy |  |
| MST 182 | Patient Care Technician* | 6 |
|  | Total credit hours | 4 |
|  | Tonysiology |  |

*Students must complete specific health requirements prior to participating in clinical; will be billed for liability insurance when registering for the course; and may be required to obtain a criminal background check based on clinical site requirements.

## Phlebotomy Certificate

This certificate/area of specialization provides students with the knowledge and skill to collect blood samples by venipuncture and skin puncture. All courses can be applied to the Multi-Skilled Health Care one-year certificate program and the Medical Laboratory Technology associate degree program. Courses can also enhance the skills of students enrolled in the associate degree nursing programs.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIO 102 | Medical Terminology* | 3 |
| MLT 116 | Phlebotomy | 2 |
| MLT 117 | Phlebotomy Lab | 2 |
|  | Total credit hours | 7 |

[^0]
## NURSING

## Nursing Transition LPN to RN

This nursing sequence is a four-quarter modification to meet the educational needs of the licensed practical nurse that wishes to become a registered nurse. Other course requirements remain the same as in the two-year Registered Nursing program. The program is accredited by the National League for Nursing Accrediting Commission and approved by the Ohio Board of Nursing. Graduates are prepared to function in beginning staff-level registered nurse positions in hospitals, extended care facilities, clinics and comparable health care facilities as members of a health care team.

## Learning Outcomes

Upon completion of an associate degree in Registered Nursing, a graduate will be able to:

- communicate effectively with patients, families and other healthcare providers.
- recognize the influence of diversity on patients, families and other health care providers.
- manage nursing care for individuals and small groups of clients with common and recurring health problems.
- use the nursing process to provide holistic care for individuals across the life cycle.
- use critical thinking and problem solving skills to make nursing care decisions.
- develop and implement health teaching plans for individuals and small groups to assist them in achieving maximum health potential.
- display professional behaviors and practice within the ethical/legal framework of nursing.


## Course Format

Required courses are presented in both a traditional lecture format and an online format. All lab sessions are conducted on campus and/or at a health care facility, regardless of the format. Contact your nursing advisor for further information on online courses.

## Scholastic Preparation

The number of students that can be admitted to the program each year is restricted due to the limited availability of clinical sites. Students must petition for admission. All applicants are considered for admission by the date their petitioning request was granted and the date in which they complete the pre-requisite courses/requirements. The admission requirements include:

- a minimum COMPASS reading score of 75 . If the student does not obtain a 75 , he/she is required to take and pass with a grade of C or better the appropriate college preparatory course(s) (CPE 061 and/or CPE 062). Students are excused from taking the reading placement test if they have taken the ACT or SAT exam within the last three years and received English scores of greater than or equal to 20 on the ACT and 500 on the SAT or have obtained a C or better in a college-level English course.
- a minimum COMPASS score of 47 on Basic Math and 29 on the Algebra test. If the student does not obtain the required scores, he/she must take and pass with a grade of C or better the appropriate college preparatory course(s) (CPE 091 and/or CPE 101). Students are excused from taking the math placement test if they have taken and received a $C$ or better in a college level math course within the past three years.
- recent (within past 5 years) completion of either one unit of high school chemistry or a college chemistry course (CHM 115, Introduction to General Chemistry or CHM 114 Introduction to General Chemistry Review or the equivalent) with a grade of $C$ or better.
- a cumulative grade point average of 2.0 or greater in the required courses in the curriculum.
- licensure as practical nurse (PN) for at least one year.
- current practice as a PN. (Minimum of one year within the past three years).
- current professional CPR provider certification.
- satisfactory completion of NUR 114 - Dosage Calculations Proficiency test or course within the two years prior to admission into NUR 175, the transition nursing course.
- completion of the prerequisite course requirements for NUR 175, the transition nursing course.

Additional information about admission requirements can be obtained from the RN Program Coordinator.

## Licensure

Upon completion of the program, the graduate is eligible to apply to take the NCLEX-RN examination. Licensure is mandatory for practice as a RN. Candidates for licensure in Ohio must disclose information related to any misdemeanor committed in the course of practice, prior felony, crime involving gross immorality or moral turpitude, violation of a drug law and/or recent diagnosis or treatment of a psychotic disorder. The Ohio Board of Nursing will determine whether the candidate may take the licensing exam.

## Clinical Requirements

Transition students must meet health and criminal background check requirements before entering the first clinical nursing course. Specific information will be provided prior to beginning the nursing transition course.

Students will be billed for liability insurance for the clinical courses.

## Graduation Requirements

To qualify for an associate degree, Transition students must pass all the required courses, have a cumulative average of 2.0 and have a C as a minimum grade in each anatomy and physiology course and in all of the nursing (NUR) courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :---: | :---: | :---: |
| Number | Title | Hours |
| Fall |  |  |
| NUR 114 | Dosage Calculations | 1 |
| BIO 121 | Anatomy and Physiology I | 4 |
| ENG 111 | English I | 4 |
| PSY 111 | Psychology I | 3 |
| Winter |  |  |
| BIO 122 | Anatomy and Physiology II | 4 |
| ENG 112 | English II | 4 |
| ITS 103 | Information Technology Basics | 3 |
| COM 111 | Interpersonal Communications | 3 |
| Spring |  |  |
| BIO 123 | Anatomy and Physiology III | 4 |
| BIO 131 | Microbiology | 4 |
| PSY 223 | Lifespan Human Growth and |  |
|  | Development | 5 |
| Spring or Summer |  |  |
| NUR 175 | Transition to Registered Nursing* | 4 |
| NUR 200 | Service Learning Project ** | 1 |
| *Recognition of competency achievement equivalent to nursing credit hours will be given for advanced placeme after successful completion of NUR 175. |  |  |
|  |  |  |
| Summer or Fall |  |  |
| NUR 274 | Nursing IV | 5 |
| NUR 275 | Nursing V | 5 |
| ENG 223 | Technical Report Writing | 3 |
| SOC 110 | Sociology | 3 |
| Fall or Winter |  |  |
| NUR 276 | Nursing VI | 11 |
| -- | Humanities/Social Science Elective | 3 |
| Winter or Spring |  |  |
| NUR 267 | Nursing VII | 4 |
| NUR 265 | Nursing VIII | 5 |
| NUR 266 | Directed Nursing Practice | 2 |
| NUR 281 | Nursing Comprehensive Review |  |
|  | Seminar | 2 |
|  | Total credit hours | 107 |

**NUR 200 may be taken after completing NUR 170 and must be completed prior to enrolling in the final quarter of nursing courses.

## Practical Nursing Certificate

The 12-month Practical Nursing Certificate is approved by the Ohio Board of Nursing and the Ohio Board of Regents.

The program schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals may require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

Learning Outcomes
Upon completion of this program of practical nurse education, the graduate will be able to:

- contribute to the data collection of the health care client from newborn through aged within prescribed settings.
- within the legal scope of practice for the Practical Nurse, participate in the planning, implementation and evaluation of nursing care using the nursing process.
- provide safe nursing care in prescribed situations using nursing skills and principles from the biological and behavioral sciences.
- report and document significant findings of the client's condition to the appropriate individual in a timely manner.
- identify health care learning needs of assigned clients and assist in teaching the health care client.
- function as an active member of the nursing care team and assume responsibility for continuing growth in nursing knowledge and skills.
- demonstrate a code of behavior based on ethical principles and an understanding of the legal scope of practice of the Practical Nurse.


## Scholastic Preparation

The number of students that can be admitted to the program each year is restricted due to the limited availability of clinical sites. All applicants are considered for admission by the date in which they complete all petitioning prerequisites and file a petition request with the Admissions Office to be placed on the waiting list.

Prior to entering, students must demonstrate math, reading and writing competency through the COMPASS placement tests. Any student who does not have an appropriate score on the respective test must complete the college preparatory (CPE) course with a $C$ or better. In addition, students must complete all non-nursing courses and MST 181, Nurse Aide Training Course, or its equivalent prior to the fall quarter that the student is admitted into the PN program. The student is also required to present a current professional CPR card prior to taking LPN 160 or any subsequent clinical course.

## Licensure

Upon completion of the program, the graduate may apply to the Ohio Board of Nursing to take the NCLEX-PN Examination. Candidates for licensure in Ohio must disclose information related to any prior felony, any crime involving gross immorality or moral turpitude, any violation of a drug law and/or recent diagnosis or treatment of a psychotic disorder. The Ohio Board of Nursing will determine whether the candidate may take the licensing exam.

## Clinical Requirements

Practical Nursing students must meet health and criminal background check requirements before they take LPN 160 Fundamentals of Nursing I.

Students will be billed for liability insurance for the clinical courses.

## Graduation Requirements

To qualify for a certificate in Practical Nursing, students must have a cumulative average of 2.0 and must have a C as a minimum grade in BIO 105 and all LPN courses.

Course
Number
Course
Title

Summer
NUR 114 Dosage Calculations

## Credit

 HoursBIO 102 Medical Terminology 1

BIO 105 Fundamentals of Anatomy and Physiology
ENG 111 English I
ITS 12W Beginning Word Processing PSY 111 Psychology I

Fall
PSY 223 Lifespan Human Growth and Development
LPN 108 Nutrition and Diet Therapy
LPN 125 Introduction to Disease Processes
LPN 130 Nursing Trends I
LPN 160 Fundamentals of Nursing I

## Winter

LPN 146
LPN 171
Pharmacology for Practical Nurses
LPN 182 Women's Health and Obstetric Nursing

$$
2.5
$$

LPN 151 Pediatric Nursing
Spring
LPN 190
Medical-Surgical Nursing
Total credit hours

## Practical Nursing Certificate - Evening-Weekend Option

The Practical Nursing program will be offering an eveningweekend option starting winter quarter 2008. This option will allow students who are unable to attend school on a full-time basis during the day another option for certificate completion. Students can enroll on a part-time basis, taking less than 12 credit hours during all except the last quarter of the program. Students are required to enroll in 14 credit hours during the last quarter in order to complete the program. The program entrance requirements, learning outcomes, curriculum and clinical, graduation and licensure requirements are the same as listed for the full-time program. The program schedule that follows is designed for students who have completed all prerequisites and who have no college preparatory recommendations.

Course Course Credit
Number Title Hours

## Winter

BIO 102 Medical Terminology 3
ENG 111 English I 4
ITS 12W Beginning Word Processing 1
Spring
BIO 105 Fundamentals of
Anatomy and Physiology 4
PSY 111 Psychology I 3
Summer
LPN 108 Nutrition and Diet Therapy 2
LPN 125 Introduction to Disease Processes 4
LPN 130 Nursing Trends I 2
NUR 114 Dosage Calculations 1
Fall
$\begin{array}{ll}\text { PSY } 223 & \begin{array}{l}\text { Lifespan Human Growth and } \\ \text { Development }\end{array}\end{array}$
LPN 146
Pharmacology for Practical Nurses

## Winter

LPN 160 Fundamentals of Nursing I 6
$\begin{array}{lll}\text { LPN } 182 & \text { Women's Health and } & \\ & \text { Obstetric Nursing } & 2.5\end{array}$
Spring
LPN $171 \quad$ Fundamentals of Nursing II
LPN 151 Pediatric Nursing 3.5
Summer
LPN 190
Medical-Surgical Nursing
14

Total credit hours

## Registered Nursing

The Registered Nursing program is a seven-quarter associate degree program that is accredited by the National League for Nursing Accrediting Commission and approved by the Ohio Board of Nursing. Graduates are prepared to function in beginning staff-level registered nurse positions in hospitals, extended care facilities, clinics and comparable health care facilities as members of a health care team.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory requirements. Many individuals, especially part-time students and those taking college preparatory education courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Registered Nursing, a graduate will be able to:

- communicate effectively with patients, families and other healthcare providers.
- recognize the influence of diversity on patients, families and other health care providers.
- manage nursing care for individuals and small groups of clients with common and recurring health problems.
- use the nursing process to provide holistic care for individuals across the life cycle.
- use critical thinking and problem solving skills to make nursing care decisions.
- develop and implement health teaching plans for individuals and small groups to assist them in achieving maximum health potential.
- display professional behaviors and practice within the ethical/legal framework of nursing.


## Course Format

Required courses are presented in both a traditional lecture format and an online format. All lab sessions will be conducted on campus and/or at a healthcare facility, regardless of the format. Contact your nursing advisor for further information on online courses.

## Scholastic Preparation

The number of students that can be admitted to the program each year is restricted due to the limited availability of clinical sites. All applicants are considered for admission by the date in which they complete all petitioning prerequisites and file a petition online at http://www. clarkstate.edu/petitions.html to be placed on the waiting list.

To be eligible to petition to the Registered Nursing program, the student must have:

- a minimum COMPASS reading score of 75 . If the student does not obtain a 75 , he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 061 and/or CPE 062). Students are excused from taking the reading placement test if they have taken the ACT or SAT exam within the last three years and received English scores of greater than or equal to 20 on the ACT and 500 on the SAT or have obtained a C or better in a college-level English course.
- a minimum COMPASS score of 47 on Basic Math and 29 on the Algebra test. If the student does not obtain the required scores, he/she must take and pass with a grade of C or better the appropriate college preparatory course(s) (CPE 091 and/or CPE 101). Students are excused from taking the math placement test if they have taken and received a C or better in a college-level math course within the past three years).
- a recent (within past five years) grade of $C$ or better in either high school chemistry or a college chemistry course (CHM 115, Introduction to General Chemistry, CHM 114, Introduction to General Chemistry Review or the equivalent).
- a GPA of greater than or equal to 2.0 in the courses pertaining to the identified nursing major.

In order to be accepted into the clinical nursing courses, the student must maintain a 2.0 cumulative grade point average in the required courses in the curriculum while
on the waiting list. College preparatory courses and other courses, which are not listed as part of the curriculum are not included in calculating the GPA. If the student does not maintain a 2.0 GPA , his or her name will be removed from the waiting list. While students are waiting to be accepted into the clinical nursing courses, they may take any of the non-nursing courses in the curriculum. Entry into clinical nursing courses occurs once a year in the fall. Initial acceptance letters for fall entry are mailed out in February, and the acceptance process continues until all the openings are filled. Initially, students are accepted based on the date their name was placed on the waiting list. If additional openings remain after the responses from the initial acceptance mailing are returned, subsequent acceptance is more selective and based on completion of selected non-clinical nursing courses in addition to the GPA requirement and the date the student's name was placed on the waiting list.

## Clinical Requirements

Prior to entering the first clinical nursing course (NUR 170), students must have current professional CPR provider status. Students must also have current state-tested nurse aide credentials and/or satisfactorily completed MST 181 or its equivalent within the past two years. Please contact your nursing advisor for further information about these requirements.

Registered Nursing students must also meet health and criminal background check requirements before they enter the first clinical nursing course. Second-year students must update health requirements prior to taking clinical courses. Specific information will be presented at orientation after acceptance into the Registered Nursing program.

Students will be billed for liability insurance for each year of clinical courses

## Licensure

Upon completion of the program, the graduate is eligible to apply to take the NCLEX-RN examination. Licensure is mandatory for practice as a RN. Candidates for licensure in Ohio must disclose information related to any misdemeanor committed in the course of practice, prior felony, crime involving gross immorality or moral turpitude, violation of a drug law and/or recent diagnosis or treatment of a psychotic disorder. The Ohio Board of Nursing will determine whether the candidate may take the licensing exam.

## Graduation Requirements

To qualify for an associate degree, Registered Nursing students must pass all the required courses, have a cumulative average of 2.0 and have a $C$ as a minimum grade in each anatomy and physiology course and in all of the nursing (NUR) courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

## Course

Number

## Summer

BIO 102
BIO 121
Medical Terminology

ENG 111
Anatomy \& Physiology I

ITS 103 Information Technology Basics
COM 111 Interpersonal Communications
NUR 114 Dosage Calculations

Fall
NUR 110 Nursing Academic Success Seminar 1
NUR 170 Nursing I
BIO 122 Anatomy and Physiology II
ENG 112 English II
PSY 111 Psychology I

## Winter

NUR 200
NUR 171
BIO 123
Service Learning Project*
PSY Anatomy and Physiology III
PSY 223 Lifespan Human Growth and Development

## Spring

NUR 120
NUR 172
BIO 131
SOC 110
Pharmacology
Nursing III
Microbiology
Sociology
Fall
NUR 274 Nursing IV
NUR 275 Nursing V
ENG 223 Technical Report Writing

## Winter

NUR 276
Nursing VI
11

-     - 

Spring
NUR 267 Nursing VII 4
NUR 265 Nursing VIII 5
NUR 266 Directed Nursing Practice 2
NUR 281 Nursing Comprehensive Review Seminar

Total credit hours
*NUR 200 may be taken after completing NUR 170 and must be completed prior to enrolling in the final quarter of nursing courses.

## Registered Nursing - Evening

A six-quarter sequence of nursing courses is offered as an evening program. Because the nursing course schedule does not allow options for other evening classes at the same time, all other required courses should be completed before a student enrolls in the first evening nursing (NUR) course.

The Registered Nursing program is accredited by the National League for Nursing Accrediting Commission and
approved by the Ohio Board of Nursing. Graduates are prepared to function in beginning staff-level registered nurse positions in hospitals, extended care facilities, clinics and comparable health care facilities as members of a health care team.

The program schedule that follows is designed for parttime students who have completed all prerequisites and who have no college preparatory recommendations. Individuals taking college preparatory courses will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Registered Nursing, a graduate will be able to:

- communicate effectively with patients, families and other healthcare providers.
- recognize the influence of diversity on patients, families and other health care providers.
- manage nursing care for individuals and small groups of clients with common and recurring health problems.
- use the nursing process to provide holistic care for individuals across the life cycle.
- use critical thinking and problem solving skills to make nursing care decisions.
- develop and implement health teaching plans for individuals and small groups to assist them in achieving maximum health potential.
- display professional behaviors and practice within the ethical/legal framework of nursing.


## Course Format

Required courses are presented in both a traditional lecture format and an online format. All lab sessions will be conducted on campus and/or at a healthcare facility, regardless of the format. Contact your nursing advisor for further information on online courses.

## Scholastic Preparation

The number of students that can be admitted to the program each year is restricted due to the limited availability of clinical sites. All applicants are considered for admission by the date in which they complete all petitioning prerequisites and file a petition online at http://www.clarkstate. edu/petitions/html to be placed on the waiting list.

To be eligible to petition to the Registered Nursing program, the student must have:

- a minimum COMPASS reading score of 75 . If the student does not obtain a 75 , he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 061 and/or CPE 062). Students are excused from taking the reading placement test if they have taken the ACT or SAT exam within the last three years and received English scores of greater than or equal to 20 on the ACT and 500 on the SAT or have obtained a C or better in a college-level English course.
- a minimum COMPASS score of 47 on Basic Math and 29 on the Algebra test. If the student does not obtain the required scores, he/she must take and pass with a
grade of $C$ or better the appropriate college preparatory course(s) (CPE 091 and/or CPE 101). Students are excused from taking the math placement test if they have taken and received a C or better in a college-level math course within the past three years).
- a recent (within past five years) grade of C or better in either high school chemistry or a college chemistry course (CHM 115, Introduction to General Chemistry or CHM 114, Introduction to General Chemistry Review or the equivalent).
- a GPA of greater than or equal to 2.0 in the courses pertaining to the identified nursing major.

In order to be accepted into the clinical nursing courses, the student must maintain a 2.0 cumulative grade point average in the required courses in the curriculum while on the waiting list. College preparatory courses and other courses, which are not listed as part of the curriculum, are not included in calculating the GPA. If the student does not maintain a 2.0 GPA , his or her name will be removed from the waiting list. While students are waiting to be accepted into the clinical nursing courses, they may take any of the non-nursing courses in the curriculum. Entry into clinical nursing courses occurs once a year in the fall. Initial acceptance letters for fall entry are mailed out in February and the acceptance process continues until all the openings are filled. Students are accepted based on the date their name was placed on the waiting list and completion of the non-clinical nursing courses prior to entry into the clinical nursing courses.

## Clinical Requirements

Prior to entering the first clinical nursing course (NUR 170), students must have current professional CPR provider status. Students must also have current state-tested nurse aide credentials and/or satisfactorily completed MST 181 or its equivalent within the past two years. Please contact your nursing advisor for further information about these requirements.

Registered Nursing students must also meet health and criminal background check requirements before they enter the first clinical nursing course. Second-year students must update health requirements prior to taking clinical courses. Specific information will be presented at orientation after acceptance into the Registered Nursing program.

Students will be billed for liability insurance for each year of clinical courses.

## Licensure

Upon completion of the program, the graduate is eligible to apply to take the NCLEX-RN examination. Licensure is mandatory for practice as a RN. Candidates for licensure in Ohio must disclose information related to any misdemeanor committed in the course of practice, prior felony, crime involving gross immorality or moral turpitude, violation of a drug law and/or recent diagnosis or treatment of a psychotic disorder. The Ohio Board of Nursing will determine whether the candidate may take the licensing exam.

## Graduation Requirements

To qualify for an associate degree, Registered Nursing students must pass all the required courses, have a cumulative average of 2.0 and have a $C$ as a minimum grade in each anatomy and physiology course and in all nursing (NUR) courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  | 4 |
| ENG 111 | English I | 4 |
| ITS 103 | Information Technology Basics | 3 |
| Winter |  | 4 |
| ENG 112 | English II | 3 |
| PSY 111 | Psychology I |  |
| Spring |  | 3 |
| ENG 223 | Technical Report Writing |  |
| PSY 223 | Lifespan Human Growth and | 5 |
|  | Development |  |
| Summer |  | 3 |
| BIO 102 | Medical Terminology | 4 |
| BIO 131 | Microbiology |  |

## Fall

BIO 121 Anatomy and Physiology I 4
SOC 110 Sociology 3

## Winter

BIO 122 Anatomy and Physiology II 4
COM 111 Interpersonal Communications
Spring
BIO 123 Anatomy and Physiology III

- Humanities/Social Science

Elective

## Summer

NUR 114 Dosage Calculations

## Fall

NUR 110 Nursing Academic Success Seminar 1
NUR 170 Nursing I
6

Winter
NUR 171 Nursing II 6
NUR 200 Service Learning Project *
Spring
NUR 120 Pharmacology 3
NUR 172 Nursing III
Summer
NUR 274 Nursing IV 5
NUR 275 Nursing V

Fall
NUR 276 Nursing VI
11

## Winter

NUR 267 Nursing VII 4
NUR 265 Nursing VIII 5
NUR 266 Directed Nursing Practice 2
NUR 281 Nursing Comprehensive Review Seminar 2

Total credit hours 110
*NUR 200 may be taken after completing NUR 170 and must be completed prior to enrolling in the final quarter of nursing courses.

## Office Administration

All students in Office Administration (OAD) take the same courses the first year. Beginning the second year, students elect to specialize in Professional Office Administration or Medical Office Administration, and the OAD prefix is maintained in both specializations throughout the second year.

The program schedules that follow are designed for fulltime students who have completed all prerequisites and who have met any college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Office Administration, a graduate will be able to:

- produce quality business letters, memorandums, reports, forms, tables, and other business documents.
- apply proper formatting, grammar, spelling and punctuation.
- file using alphabetic, numeric, geographic and subject rules.
- perform office management and information coordination functions, including project management, software training and troubleshooting, negotiating, planning, team leading, and acting as a corporate liaison.
- demonstrate word processing functions using word processing software.
- use medical terms appropriately (Medical Office Administration only).
- compose business correspondence, research and write business reports, and deliver oral presentations.
- transcribe medical documents from dictation (Medical Office Administration only).
- demonstrate good oral communication skills.
- demonstrate good customer service skills.
- exhibit an ability to think quickly on the job.


## Scholastic Preparation

Students must possess the ability to key the alphabetic and numeric keys "by touch" using appropriate techniques to enroll in OAD 101, Document Production I. Students coming into the course should be keyboarding at a minimum of 20 wpm . Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is on page 5.

## Professional Office Administration Major

Professional office administrators function in a continually shifting role in a variety of office settings because of the availability of technology, the emphasis on greater efficiency and productivity, and an increasing managerial role With this shift generally comes greater responsibility that is reflected in the duties of the professional office administrator, which include management functions, such as project management; integrated computer software applications; organization and scheduling; internet/intranet communications and research; document preparation, storage, and retrieval; and customer service and public relations.

Today's professional office administrators often purchase office equipment and supplies; plan meetings and special events; work closely with vendors and suppliers; create and give presentations; interview, orient, and supervise other staff; write and edit documents; coordinate direct mailings; maintain multiple schedules and calendars; handle messages and correspondence; and maintain computer files, directories, and databases. By performing their responsibilities well, professional office administrators should have opportunities for promotion to management positions.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

Fall
OAD 101
OAD 105
ITS 103
MTH 106
MGT 105

## Winter

OAD 102 Document Production II 5
OAD 130 Advanced Grammar and Proofreading
COM 121 Effective Speaking 3
ENG 111 English I 4
ITS 12P Beginning Presentation Graphics 1
ITS 12S Beginning Spreadsheet 1

## Spring

OAD 103
Document Production III
OAD 135
Office Procedures
OAD 140 Records Management 3
ENG 112 English II
ENG 221 Business Communications

Fall
ACC 111 Principles of Accounting I 4
EBE 100
Employability Skills
ITS 12D Beginning Database
MGT 106 Human Relations and Organizational Behavior 4
MGT 112 Principles of Business Management 4
SPN 100 Conversational Spanish

4

4 2 1

## Hours

.


| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Fall |  |  |
| OAD 101 | Document Production I | 5 |
| OAD 105 | Business English | 4 |
| ITS 103 | Information Technology Basics | 3 |
| MTH 106 | Business Mathematics | 3 |
| MGT 105 | Introduction to Business | 3 |
|  |  |  |
| Winter |  | 5 |
| OAD 102 | Document Production II | 4 |
| OAD 130 | Advanced Grammar and Proofreading | 4 |
| COM 121 | Effective Speaking | 3 |
| ENG 111 | English I | 4 |
| ITS 12P | Beginning Presentation Graphics | 1 |
| ITS 12S | Beginning Spreadsheet | 1 |

## Medical Office Administration Major

Medical office administrators function in a wide variety of medical settings, including physicians' offices, hospitals, nursing homes, etc. They may transcribe dictation, prepare medical records or charts, schedule appointments, handle correspondence, prepare bills and process insurance forms. In addition to excellent keyboarding skills, medical office administrators must possess expertise in medical terminology, familiarization with medical references, knowledge of medical coding and familiarization with HIPAA regulations. In today's global society, basic foreign language skills are increasingly important to facilitate communication in a medical environment. Strong human relations skills are also important as medical office administrators interact with people in stressful situations. Demonstrating mastery of these skills should give medical office administrators opportunities for promotion to medical office management positions.

## Scholastic Preparation

Students must possess the ability to key the alphabetic and numeric keys "by touch" using appropriate techniques to enroll in OAD 101, Document Production I. Students coming into the course should be keyboarding at a minimum of 20 nwpm. Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is on page 5 .

## Spring

OAD 103
OAD 135
Document Production III

OAD 248 Basic Medical Machine Transcription 4
BIO 102 Medical Terminology 3

BIO 105 Fundamentals of Anatomy and Physiology 4
EBE 100 Employability Skills 2
ITS 12D Beginning Database 1
SPN 100 Conversational Spanish 3

| Winter |  |  |
| :--- | :--- | ---: |
| OAD 249 | Advanced Medical Machine |  |
|  | Transcription | 4 |
| OAD 256 | Medical Office Management | 4 |
| OAD 270 | CPT - Coding | 5 |
| COM 111 | Interpersonal Communication | 3 |
|  |  |  |
| Spring |  | 5 |
| OAD 272 | ICD-9-CM Coding | 2 |
| OAD 285 | Co-op Education | 3 |
| -- | MGT Elective* | 3 |
| -- | Social Science Elective | 100 |

*ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.
**Students are required to take three credit hours of MGT courses not already prescribed.

## Office Administration Certificate

A one-year certificate in Office Administration is available for students who need a quicker entry into the job market. This will provide the student with the skills needed for entry-level positions in today's computer-oriented and fastpaced business office. Students can fully apply this one-year certificate toward the completion of either the Professional Office Administration or the Medical Office Administration associate degree programs. This certificate can be earned through a combination of evening and online courses.

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | :---: |
| Fall |  |  |
| OAD 101 | Document Production I | 5 |
| OAD 105 | Business English | 4 |
| ITS 103 | Information Technology Basics | 3 |
| MTH 106 | Business Mathematics | 3 |
| MGT 105 | Introduction of Business | 3 |
| Winter |  |  |
| OAD 102 | Document Production II | 5 |
| OAD 130 | Advanced Grammar and Proofreading | 4 |
| COM 121 | Effective Speaking | 3 |
| ENG 111 | English I | 4 |
| ITS 12P | Beginning Presentation Graphics | 1 |
| ITS 12S | Beginning Spreadsheet | 1 |
|  |  |  |
| Spring |  | 4 |
| OAD 103 | Document Production III | 4 |
| OAD 135 | Office Procedures |  |
| OAD 140 | Records Management | 3 |
| ENG 112 | English II or |  |
| ENG 135 | Business Report Writing | 4 |
| ENG 221 | Business Communications | 3 |

## Office Administration Departmental Certificates

Four departmental certificates are available for students who want to upgrade skills in a particular area. These certificates can be applied for by filling out the certificate application form in the Business and Applied Technologies Division Office in the Brinkman Educational Center.

## Communications Certificate

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| OAD 105 | Business English | 4 |
| OAD 130 | Advanced Grammar and Proofreading | 4 |
| COM 111 | Interpersonal Communication | 3 |
| COM 121 | Effective Speaking | 3 |
| ENG 111 | English I | 4 |
| ENG 135 | Business Report Writing | 4 |
| ENG 221 | Business Communications | 3 |
|  |  |  |
|  | Total credit hours | 25 |

## Medical Coding Certificate

| Course <br> Number | Course <br> Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIO 102 | Medical Terminology | 3 |
| BIO 105 | Fundamentals of Anatomy |  |
|  | and Physiology | 4 |
| OAD 270 | CPT - Coding | 5 |
| OAD 272 | ICD-9-CM Coding | 5 |
|  | Total credit hours | 17 |

$\underset{\substack{\text { Course } \\ \text { Number }}}{\text { Medical Transcription Certificate }} \begin{gathered}\text { Course } \\ \text { Tite }\end{gathered} \quad \begin{gathered}\text { Credit } \\ \text { Hours }\end{gathered}$
Number Title Hours

OAD 101 Document Production I 5
OAD 248 Basic Medical Machine Transcription* 4
OAD 249 Advanced Medical Machine Transcription4

BIO 102 Medical Terminology 4
BIO 105 Fundamentals of Anatomy and Physiology

Total credit hours
*A student can take OAD 245 or OAD 248 concurrently with OAD 101 if he or she can type at least 35 wpm and knows Microsoft Word to a level equivalent to ITS 102 or ITS 12W. Please see the Dean of Business and Applied Technologies for a wavier. A Medical Transcription Certificate student with strong grammar skills can also ask the dean to waive OAD 105 and OAD 130 as a prerequisite for OAD 248.

## Paralegal <br> Paralegal

The Paralegal Technology program trains persons to assist attorneys in the delivery of legal services. Paralegals are employed by private law firms, financial institutions, courts, prosecutors' offices, legal aid societies, public defenders' programs and corporate law offices.

Clark State cooperates with Sinclair Community College to offer approximately one year of courses leading toward an associate degree with a major in paralegal. Students are cautioned that it will take more than a year to complete the remainder of the courses at Sinclair. By taking a year of coursework at Clark State, many students are able to minimize commuting time.
Students enrolled in the Clark State program are asked to contact the Dean of Business and Applied Technologies.

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

ACC 111 Principles of Accounting I ..... 4
ACC 112 Principles of Accounting II ..... 4
COM 111 Interpersonal Communications ..... 3
ECO 221 Principles of Macroeconomics ..... 3
ENG 111 English I ..... 4
ENG 112 English II ..... 4
ITS 12P Beginning Presentation Graphics ..... 1
ITS 12 Beginning Spreadsheet ..... 1
ITS 12W Beginning Word Processing ..... 1
MTH 106 Business Mathematics or
MTH 121 College Algebra I ..... 3
OAD 105 Business English ..... 4
OAD 130 Advanced Grammar and Proofreading ..... 4
PLS 110 American National Government ..... 3
PSY 111 Psychology I or
SOC 110 Sociology ..... 3
One of the following humanities electives:*
ART 130 Appreciation of the Arts ..... 3
ENG 250 American Literature ..... 3
HST 121 American History to 1810 ..... 3
MUS 130 Music Appreciation ..... 3
PHL 210 Ethics ..... 3
THE 130 Introduction to Theater ..... 3
One of the following career-related electives:*
ACC 113 Principles of Accounting III ..... 4
ACC 221 Tax Accounting I ..... 4
ACC 205 Spreadsheet Accounting ..... 4
BIO 102 Medical Terminology ..... 4
ECO 222 Principles of Microeconomics ..... 3
PLS 220 Constitutional Law ..... 3
RES 240 Real Estate Appraisal ..... 2
RES 245 Real Estate Finance ..... 2
Total Clark State credit hours ..... 49
*See your academic advisor for other possible humanities or career-related electives.

## Photography <br> Photography Certificate

Scientific, industrial and societal needs point to a growing demand for trained photographers. Photography is also a vital element in both entertainment and communications. Photography also may be a personal venture, pleasing for its artistic value alone.

The program schedule is designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking developmental courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

PHO 111 Photography I 3
MGT 105 Introduction to Business 3
ENG 111 English I 4

- Humanities/Social Science Elective 3


## Winter

PHO 112 Photography II 3
ART 130 Appreciation of the Arts 3
COM 111 Interpersonal Communication 3
PHO 130 Digital Photography I` 3

## Spring

PHO 121 Color Photography I 3
ART 135 Art History III 3
ENG 112 English II 4
PSY 111 Psychology I 3
PHO 131 Digital Photography II 3

## Summer

PHO 122 Color Photography II 4
PHO 124 Photography Portfolio 4
PHO 180 Photography Practicum 3
Total credit hours 52

## Learning Outcomes

Upon completion of the Photography Certificate, a graduate will be able to:

- take black and white photographs, which depict depth of field.
- develop a black and white photograph and print that photo.
- develop a color photograph and color balance it to industry standards.
- pose a subject and take a portrait photograph to industry standards.
- take a digital photograph using proper lighting as defined by industry standards.
- take a digital photograph and through computer software manipulate that photograph and print it.


## Physical Therapy

## Physical Therapist Assistant

The Physical Therapist Assistant program is a seven-quarter curriculum, which combines didactic and clinical learning experiences that are within the legal scope of responsibility of physical therapist assistants.

The physical therapist assistant delivers services under the supervision of a physical therapist that completes an initial examination of the patient and determines the appropriate treatment plan and goals for the patient. The physical therapist assistant shares the responsibility for administering treatments, instructing patients in exercises and activities of daily living and documenting the patient's response to therapy. Graduates will be prepared to function in their role to provide treatment in a variety of settings such as inpatient, outpatient and home care services.

Upon successful completion of all aspects of the PTA program, graduates are eligible to take the state licensing examination. Licensure is mandatory for practice as a physical therapist assistant in the State of Ohio

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students working full time are strongly encouraged to complete all or most non-core PTA courses prior to starting the program. (See the PTA Petitioning Handbook for details.) Students should consult their academic advisors for help in planning their schedules.

## Course Format

Each PTA course is composed of two required compo-nents-an online lecture component and a lab component, which may be taught at the Leffel Lane campus or other College approved site.

## Scholastic Preparation

## 2007-2008 Admission Requirements

The number of students that can be admitted to the program each year is restricted due to the limited availability of clinical sites. All applicants are considered for admission by the date in which they file a petition in the Health and Human Services Office.

In addition to completing the standard procedures for admission to the College, students must complete the following to be eligible to petition to the Physical Therapist Assistant Program:

- a minimum COMPASS reading score of 75 . If the student does not obtain a 75 , he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 061 and/or CPE 062). Students are excused from taking the reading placement test if they have taken the ACT or SAT exam within the last three years and received reading scores of greater than or equal to 20 on the ACT and 500 on the verbal portion of the SAT or have obtained a C or better in a college-level English course.
- a minimum COMPASS score of 38 on pre-algebra and 29 on the algebra test. If the student does not obtain the required scores, he/she must take and pass with a grade of C or better the appropriate college preparatory course(s) (CPE 091/DEV 091 and/or CPE 101/DEV 101). Students are excused from taking the pre-algebra and algebra placement test if they have taken and received a C or better in a college-level math or physics course within the past ten years. Students are excused from taking the pre-algebra and algebra placement test if they have taken the ACT or SAT exam within the last three years and received math scores of greater than or equal to 22 on the ACT and 560 on the math portion of the SAT. Students are excused from taking the Algebra placement test if they opt for and pass the PTA Physics Proficiency.
- a recent grade of $C$ or better in either high school physics (within past 5 years) or a college physics course (PHY 110, Fundamentals of Physics or its equivalent, within the past ten years) or passing of the PTA Physics Proficiency (within the past year).
- students who do not complete Anatomy and Physiology I prior to entering the program must be prepared to take it in the fall concurrent with Muscle Anatomy (BIO 118). Students must have completed all pre-requisites required for Anatomy and Physiology I (BIO 121) prior to petitioning for admission into the program. Please review the PTA Petitioning Handbook or contact your physical therapist assistant advisor for further information about these requirements.
- a GPA of greater than or equal to 2.0 in the courses pertaining to the identified physical therapist assistant major.

In order to be accepted into the physical therapist assistant courses, students must maintain a 2.0 cumulative grade point average in the required courses in the curriculum while on the admission or waiting list. College preparatory courses and other courses, which are not listed as part of the curriculum, are not included in calculating the GPA. However, a minimum grade of $C$ is required in the pre-requisite and college preparatory courses (CPE). Please refer to the PTA Petitioning Handbook for additional information on courses in which a $C$ is required. If the student does not maintain a 2.0 GPA while on the admission or waiting list, his or her name will be removed from the list. While students are on either list they may take any of the non-core PTA courses in the curriculum. (Muscle Anatomy, BIO 118 and Biomechanics, BIO 230 are considered core PTA courses).

- Prior to entering the first physical therapist assistant course (Introduction to Patient Management, PTA 120) students must complete 30 hours of volunteer/observation or work experience under the supervision of a physical therapist or physical therapist assistant within the past five years. These hours must be completed in two different settings. Failure to do so by the date established in the PTA Petitioning Handbook will result in removal from the admission list.

Entry into physical therapy assistant courses occurs once a year in the fall. Acceptance letters for fall entry are mailed out in April of each year. Applicants are placed on either the admission or waiting list, depending upon program openings. This information is outlined in complete detail in the PTA Petitioning Handbook, available in the Admissions Office and online.

## 2008-2009 Admission Requirements

Grades from chemistry and physics will be included in the GPA calculation (including high school courses if those courses are being used for petitioning). The required GPA for petitioning and acceptance into the PTA Program is 2.5 in the core PTA courses including chemistry and physics prerequisites. Students who have completed Anatomy and Physiology I and II (BIO 121, BIO 122) with a C or better or the equivalent by the end of the winter quarter may petition and/or be accepted with a GPA of 2.0.

## Learning Outcomes

Upon completion of an associate degree in Physical Therapist Assistant Technology, graduates will be able to:

- demonstrate skill in implementing treatment practices to complete a comprehensive treatment plan.
- demonstrate skill in utilizing testing and measurement techniques appropriate to the plan of care established by the physical therapist.
- implement effective communication when working with patients, families, colleagues and other health care providers.
- work in an ethical, legal, safe and effective manner under the supervision of a physical therapist.
- apply appropriate role utilization in the physical therapy delivery system.
- practice lifelong learning that reflects social responsibility and career development.


## Graduation Requirements

A 2.0 cumulative average on a 4.0 scale is the standard used for the major courses in the PTA curriculum.

## Clinical Requirements

A physical exam, a two-step Mantoux test, Hepatitis B immunization or waiver, a health history including record of childhood immunizations or adult titers, professional CPR and First Aid training are required prior to beginning the second year. Fingerprinting, additional medical tests and other requirements may be necessary depending upon clinical site placement.

## Liability Insurance

Students will be billed for liability insurance for the academic year of directed practice courses.

## Certification Fees

Students will be billed for certification fees during the second year of the program to cover a portion of the licensure examination.

## Accreditation

The Clark State PTA program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

## Fall

PTA 110 PTA Survey 3
PTA 120 Introduction to Patient Management
2
BIO 102 Medical Terminology
3
BIO 118 Muscle Anatomy 2
BIO 121 Anatomy and Physiology I
ENG 111 English I
ITS 103 Information Technology Basics

## Winter

PTA 145 PTA Procedures I
BIO 122 Anatomy and Physiology II
BIO 230 Biomechanics
ENG 112 English II
PSY 111 Psychology I

## Spring

PTA 146
PTA Procedures II
PTA 160
PTA Rehabilitation I
6
BIO 123 Anatomy and Physiology III 4
PSY 223 Lifespan Human Growth and Development

Summer
PTA 241
PTA Procedures III
5
PTA 245 PTA First Year Capstone 1

-     - 

Humanities/Social Science Elective
3

## Fall

PTA 260 PTA Rehabilitation II 6
PTA 281 Directed Practice I 3
PTA 291 Seminar I 2
COM 111 Interpersonal Communication 3

-     - 

Humanities/Social Science Elective
3

Winter
PTA 265
PTA Rehabilitation III
PTA 270 PTA Trends and Issues 2
PTA 282 Directed Practice II 3
PTA 292 Seminar II
2
ENG 223 Technical Report Writing 3

Spring
PTA 283 Directed Practice III 6
PTA 293 Seminar III 2

Total credit hours

## Realtime Reporting <br> Judicial Reporting (Court Reporting)

Judicial reporters record the verbatim proceedings of a courtroom, deposition, hearing, arbitration, or meeting and provide an accurate transcript of the proceedings.

Clark State students learn to write realtime using a computerized machine and to prepare transcripts using computer-aided transcription (CAT) software. Students' writing skills are perfected by utilizing a mock computerintegrated courtroom (CIC). All Realtime Reporting students are required to purchase a computerized writer and a laptop computer.

The program schedule that follows is designed for fulltime students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory courses, will require additional quarters of study. Students should consult their academic advisor for help in planning their schedules.

Students will follow the curriculum of the Realtime Reporting program through the first year before deciding whether they will select Judicial Reporting or Broadcast Captioning/CART as their career goal. All Realtime Reporting students may also elect to follow both tracks, graduating with a degree in both options.

## Learning Outcomes

Upon completion of an associate degree in Judicial Reporting, a graduate will be able to:

- write a realtime translation theory.
- read aloud from shorthand notes quickly and accurately.
- demonstrate knowledge of basic hardware care, maintenance, and setup of a realtime system.
- demonstrate an understanding and application of law and legal terminology, anatomy and/or medical terminology and current events.
- assume the role of the realtime reporter.
- apply the NCRA Code of Professional Ethics.
- determine and use the appropriate reference sources in transcript production.
- write and transcribe testimony at 225 wpm with at least 95 percent accuracy.
- write and transcribe jury charge at 200 wpm with at least 95 percent accuracy.
- write and transcribe literary at 180 wpm with at least 95 percent accuracy.
- perform 80 hours of verified internship and summarize the experience in a written narrative.
- prepare a 40 -page sellable transcript.


## Scholastic Preparation

Prospective students should be disciplined, self-motivated, computer-literate and possess above-average language skills. They also need to be able to meet deadlines, work well under pressure, and concentrate for long periods of time.

Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a prepara-
tory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

Entering students must be high school graduates or possess a certificate of general education (GED).

## Graduation Requirements

The Realtime Reporting program is approved by the National Court Reporters Association. This association's requirements are met or exceeded with the following standards:

- The student shall pass three five-minute tests with 95 percent accuracy at each of the following speeds: 225 wpm testimony (two-voice), 200 wpm jury charge and 180 wpm literary.
- The student shall complete at least 80 verified hours of internship under the supervision of a practicing judicial reporter.
- The student shall prepare a five-page, first-pass transcript with 95 percent accuracy.
- Student must have passed each of the terminal speed courses (RTR 203, RJR 213, and RJR 233) within 12 months prior to graduation.

Clark State Community College reserves the right to change these standards when determined educationally expedient.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course <br> Number | Course Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Fall |  |  |
| RTR 105 | Realtime Theory | 7 |
| RTR 110 | Survey of Realtime Reporting | 1 |
| RTR 125 | Vocabulary and Reference Use | 2 |
| ITS 103 | Information Technology Basics | 3 |
| OAD 105 | Business English | 4 |
| Winter |  |  |
| RTR 106 | Realtime Theory Reinforcement | 2 |
| RTR 107 | Beginning Speed Building I | 3 |
| RTR 131 | Beginning Computer Assisted |  |
|  | Transcription | 3 |
| RTR 152 | Realtime Transcription | 2 |
| ENG 111 | English I | 4 |
| ENG 221 | Business Communications | 3 |
| Spring |  |  |
| RTR 108 | Beginning Speed Building II | 3 |
| RTR 111 | Beginning Testimony I | 3 |
| RTR 120 | Law and Legal Terminology | 2 |
| RTR 152 | Realtime Transcription | 2 |
| ENG 112 | English II | 4 |

Summer
RTR 112 Beginning Testimony II 3
RTR 151 Realtime Transcription 1
BIO 102 Medical Terminology 3

- Humanities Elective
- Social Science Elective 3
-     - Humanities/Social Science Elective (GA)

Fall
RJR 211 Advanced Testimony I 3
RJR 231 Jury Charge I 3
RTR 101 Advance Speed Building I 3
RTR 153 Realtime Transcription 3
--
Humanities/Social Science Elective

## Winter

RJR 212 Advanced Testimony II 3
RJR 232 Jury Charge II 3
RJR 245 Office Management 3
RTR 132 Advanced Computer
Assisted Transcription 3
RTR 153 Realtime Transcription 3
RTR 202 Advanced Speed Building II 3

## Spring

RJR 213 Advanced Testimony III* 3
RJR 233 Jury Charge III* 3
RTR 153 Realtime Transcription 3
RTR 203 Advanced Speed Building III* 3
RJR 280 Judicial Reporting:
The Professional Experience
1

## Total Credit Hours

*Must be completed within 12 months prior to graduation.

## Broadcast Captioning/CART Option

Broadcast captioners capture the spoken word on television shows instantly and their work product is visible nationally as the caption scrolls across the television screen. The realtime reporter who provides this service may be working in the television studio itself or from a broadcast studio that is set up in his/her home. This very demanding profession mandates that the Clark State Realtime Reporting student be trained to write realtime on a computerized writer that is cabled to a laptop computer. This allows the student to practice accurate writing techniques from the beginning of his/her college career, resulting in the speed and accuracy required for this specialty. Students' writing skills are perfected by utilizing a mock broadcast captioning studio. All Realtime Reporting students are required to purchase a computerized writer and a laptop computer.

CART (Communication Access Realtime Translation) reporters provide instantaneous text of the spoken word displayed on a computer screen or large projection screen. CART is classified as an assistive technology and is considered a reasonable accommodation under the Americans with

Disabilities Act. It is a service provided in the academic setting for students with hearing impairment as well as in public settings such as conventions, churches, corporate meetings, funerals, police interrogations, etc. This specialty also requires realtime writing as described above as well as training in deaf culture so that the student understands and is sensitive to the needs of the consumer.

Students will follow the curriculum of the Realtime Reporting program through the first year before deciding whether they will select Broadcast Captioning/CART or Judicial Reporting as their career goal. All Realtime Reporting students may also elect to follow both tracks, graduating with a degree in both options.

## Learning Outcomes

Upon completion of an associate degree majoring in Realtime Reporting with an option in Broadcast Captioning/CART, a graduate will be able to:

- write a realtime translation theory.
- transcribe three five-minute, 180 wpm literary takes with 1.4 syllabic density at 96 percent accuracy.
- demonstrate knowledge of and the ability to perform the basic setup and maintenance of captioning equipment.
- prepare captioned translation of one hour of captioning services.
- perform 40 verified hours actual writing within a captioning environment and summarize the experience in a written narrative.
- paraphrase and accurately finger spell in realtime using the phonetic translator.
- build and maintain realtime dictionaries.
- demonstrate knowledge of the CART Provider's Manual and the Guidelines for Professional Practice.
- demonstrate ability to connect a computer laptop to current technology and set up equipment for maximum benefit of CART recipients.
- demonstrate knowledge of the role of sign language interpreters and oral interpreters.
- prepare a realtime translation of one hour of CART services.
- perform 40 verified hours of actual writing within a CART environment and summarize the experience in a written narrative.


## Scholastic Preparation

Prospective students should be dependable, flexible, innovative, organized, professional, punctual, trustworthy, disciplined, and able to work under pressure. They should possess above-average language skills.
Students with little or no computer background should enroll in ITS 080, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 102, Keyboarding/Word Processing.

Entering students must be high school graduates or possess a certificate of general education (GED).

## Graduation Requirements

- Prepare an acceptable realtime translation of one hour of CART services.
- Prepare an acceptable captioned translation of one hour of captioning services.
- Complete 40 hours of actual writing time in the CART environment.
- Complete 40 hours of actual writing time in the captioning environment.
- Pass three five-minute tests with 96 percent accuracy at 180 wpm literary.
- Produce a five-page, first-pass transcript with at least 96 percent accuracy.
- Student must have passed the terminal speed course RTR 203 within 12 months prior to graduation.
Clark State Community College reserves the right to change
these standards when determined educationally appropri-

Humanities/Social Science Electives
A complete listing of political science electives can be found on page 5 .

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

Fall
RTR 105 Realtime Theory 7
RTR 110 Survey of Realtime Reporting 1
RTR 125 Vocabulary and Reference Use 2
ITS 103 Information Technology Basics 3
OAD 105 Business English 4

## Winter

RTR 106 Realtime Theory Reinforcement
RTR 107 Beginning Speed Building I 3
RTR 131 Beginning Computer Assisted Transcription3
RTR 152 Realtime Transcription ..... 2
ENG 111 English I ..... 4
ENG 221 Business Communications ..... 3

Spring

RTR 108 Beginning Speed Building II 3
RTR 111 Beginning Testimony I 3
RTR 120 Law and Legal Terminology 2
RTR 152 Realtime Transcription 2
ENG 112 English II 4
Summer
RTR 112 Beginning Testimony II 3
RTR 151 Realtime Transcription 1
BIO 102 Medical Terminology 3
GLG 129 Survey of Earth Science 4
PLS - Political Science Elective 3
SOC 110 Sociology 3

Fall
RCC 110 Introduction to Deaf Community 4
RCC 221 Captioning/CART I 2
RCC 231 Captioning/CART Speed Building I 1
RTR 151 Realtime Transcription 1
RTR 201 Advanced Speed Building I 3
ENG 250 American Literature 3

## Winter

RCC 222 Captioning/CART II ..... 3
RCC 232 Captioning/CART Speed Building II ..... 1
RCC 245 Business Practices ..... 2
RTR 132 Advanced Computer Assisted Transcription ..... 3
RTR 151 Realtime Transcription ..... 1
RTR 202 Advanced Speed Building II ..... 3
CHM 110 Fundamentals of Chemistry ..... 5
Spring
RCC 223 Captioning/Cart III ..... 3
RCC 233 Captioning/CART Speed Building III ..... 1
RCC 280 Captioning: The Professional Experience .....  5
RCC 281 CART: The Professional Experience .....  5
RTR 151 Realtime Transcription ..... 1
RTR 203 Advanced Speed Building III* ..... 3
GEO 220 World Regional Geography ..... 3
HST 123 American History 1900 - Present ..... 3
Total Credit Hours ..... 110
*Must have been completed within 12 months prior tograduation.

## Social Services

## Social Services

Social work education is at the core of the Social Services program. Social work is devoted to helping people function as well as they can within their environments. Areas of employment include alcohol and drug treatment, children's services, juvenile services, mental health, mental retardation and developmental disabilities and public assistance. The field placement portion of the curriculum provides over 480 hours of supervised learning experiences in local social services agencies.

The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many individuals, especially part-time students and those taking college preparatory requirements, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an associate degree in Social Services, a graduate will be able to:

- develop skills in screening, assessing and developing treatment plans for client populations in the social services and/or addictions field.
- demonstrate the ability to integrate social work and/or addictions theory with practical applications.
- adhere to a professional code of ethics and policy/procedural standards in working with clients and coworkers.
- complete professional documentation reports, including progress notes, psycho/social histories and mental status evaluations, as well as other professional documentation.


## Registration

Graduates of this program who have achieved a grade of C or better in all Social Services courses are eligible to be registered as Social Work Assistants by the Ohio Counselor and Social Worker Board.

## Prerequisites

Persons seeking a career in social services should recognize that to be successful, they must be emotionally stable, creative and flexible. A social services professional must be able to work effectively with diverse groups of people and individuals with a wide variety of ages, racial and cultural backgrounds and life situations. ENG 111, ITS 103 and SWK 100 must be completed with a grade of C or better before enrolling in additional courses. Students will be expected to meet minimum behavioral expectancies in order to continue in the Social Services program.

## Health Requirements

Students must meet health requirements before taking the first practicum course.

## Graduation Requirements

Graduates must demonstrate professional ethical behavior, effective oral and written communication, professional documentation skills, basic listening skills and an awareness of personal biases as they affect clients.

## Liability Insurance

Students will be billed for liability insurance for the year of practicum courses.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives begins on page 5 .

| Course <br> Number | Course Title | Credit Hours |
| :---: | :---: | :---: |
| Fall |  |  |
| SWK 100 | Intro to Social Welfare and |  |
|  | Social Work* | 4 |
| SWK 105 | Chemical Dependency I | 4 |
| ENG 111 | English I* | 4 |
| ITS 103 | Information Technology Basics* | 3 |
| PSY 111 | Psychology I | 3 |
| Winter |  |  |
| SWK 121 | Social Work Methods and Procedures | 5 |
| ENG 112 | English II | 4 |
| PSY 223 | Lifespan Human Growth and |  |
|  | Development | 5 |
| SOC 110 | Sociology | 3 |
| Spring |  |  |
| SWK 136 | Affective Education | 4 |
| BIO 110 | Fundamentals of Human Biology | 4 |
| ENG 223 | Technical Report Writing | 3 |
| SOC 240 | Racial and Cultural Minorities | 3 |
| -- | Humanities Elective (GA) | 3 |
| Fall |  |  |
| SWK 231 | General Practice/Crisis Intervention | 3 |
| SWK 271 | Social Service Practicum I** | 2 |
| SWK 291 | Social Service Seminar I** | 2 |
| PSY 230 | Abnormal Psychology | 3 |
| - | Technical Elective*** | 3 |

## Winter

SWK 238 Social Work and Group Work 3
SWK 236 Case Management 5
SWK 272 Social Services Practicum II 2
SWK 292 Social Services Seminar II 2
--
Humanities/Social Science Elective

## Spring

SWK 130 Social Policy and Service 4
SWK 232 Generalist Practice with Families 3
SWK 273 Social Services Practicum III 2
SWK 293 Social Services Seminar III 2

- Technical Elective*** 3
SWK 136 Affective Education ..... 43
ENG 223 Technical Report Writing
SOC 240 Racial and Cultural Minorities ..... 3
-- ..... 3

Fall

SWK 231 General Practice/Crisis Intervention3SWK 291 Social Service Seminar I**23
Total credit hours ..... 94
*ENG 111, ITS 103 and SWK 100 MUST be completed with a $C$ or better before enrolling in additional social service courses (SWK).
**SWK 271 Social Service Practicum I and SWK 291 Social Service Seminar I must be taken together. Students must attend Practicum orientation to be admitted into SWK 271. ***Technical electives include: SWK 205, SWK 217, SWK 218, SWK 220, SWK 297 and MST 101. NOTE: Students interested in the field of Chemical Dependency should take both Chemical Dependency Technical Electives: SWK 205 and SWK 217.

## Social Services Departmental Certificates

A departmental certificate is available for students to meet requirements for the Ohio Credentialing Board. This certificate can be applied for by filling out the certificate application form in the Health and Human Services Division Office in the Applied Science Center.

## Chemical Dependency

This certificate is focused on providing 120 clock hours toward the required 270 hours in core coursework that must be earned to become a certified chemical dependency counselor. (SWK 205 and SWK 217 are also technical electives for the Social Work degree.)

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

SWK 105 Chemical Dependency I: Pharmacology/Physiology of Psychoactive Substances 4
SWK 205 Chemical Dependency II: Counseling Techniques ..... 4
SWK 217 Chemical Dependency III: Special Populations ..... 4
Total credit hours ..... 12

## Theatre Arts

## Theatre Arts

Clark State offers two programs in theatre, both developed in conjunction with Clark State's Performing Arts Center in downtown Springfield. The first option is an associate of arts degree with a technical theatre concentration, which focuses on stagecraft, lighting and sound. Students who enroll in this program should be prepared for entry-level technical careers at the end of two years of full-time study, although some students may choose to transfer to university programs with a technical focus. The other option is an associate of arts degree with a performing arts concentration, which focuses on acting, voice, theatre history, etc. Performance students will most likely transfer to university programs with a performance focus. Students in both programs will be involved with theatrical productions in the Performing Arts Center.

In order to finish their degrees in two years, full-time students should have completed all prerequisites and have no college preparatory requirements. Many individuals, especially part-time students and those taking preparatory courses, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Area 1 - English (8 credit hours)

English I (ENG 111) and English II (ENG 112)
Area 2 - Literature and the Arts (9 credit hours)
Introduction to Theatre (THE 130) *, Theatre History I (THE 270), Creative Writing (ENG 225) or Drama (ENG 245)

## Area 3 - Humanities (9 credit hours)

Western Civilization I (HST 111), II (HST 112), III (HST 113)

Area 4 - Social Sciences ( 15 credit hours)
Psychology I (PSY 111), Abnormal Psychology (PSY 230), Sociology (SOC 110), any Regional Studies course (RST), World Regional Geography (GEO 220) or Comparing Cultures (SOC 220)

## Area 5 - Mathematics and Computers (6 credit hours)

Math in Today's World (MTH 105) or College Algebra I (MTH 121); Information Technology Systems requirement of three credit hours (Information Technology Basics (ITS 103) is recommended.)

## Area 6 - Natural Sciences (12-15 credit hours)

Take either a three-course sequence in Biology, Chemistry, Geology or Physics or choose any three laboratory-based courses from the four content areas listed above. The three courses selected must come from three different sciences (example: one class from $\mathrm{BIO}, \mathrm{CHM}$ and GLG).

## Capstone Seminar

Effective Fall Quarter 2001, all new students entering the College for the first time pursuing either an AA or AS degree, are now required to take the Capstone Seminar (HUM 299). Students must have earned at least 60 credit hours prior to taking the course and must take the course for graduation. The course will assess student achievement of the specific AA/AS program goals.

## Option One - Performance Theatre <br> Concentration (15-17 credit hours)

Acting I (THE 202)*, Acting II (THE 203), Speech and Voice for Actors (THE 107), Dance and Movement for Actors (DAN 140) and Acting III (THE 204)

Electives (15-17 credit hours)
Children's Theatre (THE 160), Theatre History II (THE 271), Stagecraft I (THE 111)*, Theatre Laboratory I (THE 150), II (THE 151), III (THE 152)**, Theatre electives, Dance electives and Music electives

All performance majors must work in at least one technical position as approved by their advisor to fulfill graduation requirements.

Upon completion of an associate degree in Performing Arts, a graduate will be able to:

- demonstrate competency with basic audition techniques.
- internalize the discipline and professional attitude of a performer.
- analyze a script for the purposes of character development.
- analyze a play's structure, character, themes and production values.
- differentiate among major periods in theatre history.
- demonstrate competency in at least two different areas within the performing arts.


## Option Two-Technical Theatre

Concentration (15-17 credit hours)
Stagecraft I (THE 111)*, II (THE 112), Acting for the Nonmajor (THE 160), Lighting I (THE 210)

## Electives (15-17 credit hours)

Lighting II (THE 211), Sound I (THE 220), Theatre Labs I (THE 150), II (THE 151), III (THE 152)**, Sound II THE 271), Theatre electives (3-5 credit hours), Theatre History II

## Learning Outcomes

Upon completion of an associate degree in Technical Theatre, a graduate will be able to:

- analyze a light plot and use it to hang and focus lighting equipment for a production.
- analyze a design package and use it along with scene shop tools to construct and paint a set.
- operate sound equipment and boards and lighting equipment and boards.
- demonstrate competency in fulfilling several roles within the theatre.
- demonstrate an understanding of the roles of all theatre personnel and use correct theatre terminology.
- adhere to theatre safety guidelines.
*Take during the first quarter at Clark State.
**Up to 6 credit hours may be taken for degree credit.


## Theatre Arts Departmental Certificate

The Arts Administration Certificate is designed to prepare students for entry-level positions in arts administration. General education courses in theatre, as well as arts administration, acting and stagecraft provide a broad overview of the arts. Accounting, marketing and management courses will give the students the business background they need to succeed in arts management. Many of the courses needed for this certificate overlap those required in Business Management and/or Theatre Arts, so students can apply many of the following classes to the requirements for those programs. Also, many of these classes are offered online for students who wish to do their course work at a distance.

## Arts Administration Departmental Certificate

| Course | Course | Credit |
| :--- | :--- | :--- |
| Number | Title | Hours |

THE 111 Stagecraft I 4
THE 130 Introduction to Theatre* 3
THE 230 Theatre Management 3
THE 270 Theatre History I* or
THE 271 Theatre History II* 4
THE 202 Acting I or
THE 160 Acting for the Non-major 4
ACC 111 Principles of Accounting I 4
ACC 112 Principles of Accounting II 4
MGT 106 Human Relations and Organizational Behavior 4
MGT 112 Principles of Business Management 4
MKT 200 Principles of Marketing 4
Total credit hours 38

[^1]

# Course Descriptions 



Now that you've chosen your major, check out the courses that you need to take and get an overview of what you can expect to learn at Clark State.

## Course Numbering System

Alpha prefixes identify the subject area of the course while the number identifies the level. Courses in the 100 series are usually considered first-year courses while courses in the 200 series are usually considered second-year courses. However, students should follow their recommended curriculum guides and the advice of their advisors when making final decisions regarding the level and sequence of courses.

Courses numbered under 100 or identified with the prefix CPE or DEV may not be accepted by other colleges and universities for transfer credit. College Preparatory Education (Developmental) courses do not meet graduation requirements at Clark State.

## Prerequisite(s)/Corequisite(s)

Some courses require a certain degree of prior knowledge or competence called a prerequisite. For example, a college preparatory education (CPE or DEV) course in reading or mathematics may be considered a prerequisite to most courses or mathematics courses, depending on the student's placement test scores. In other cases prerequisite courses are necessary to enter the second or third course of a sequence.

Sometimes the prior knowledge required for a course can be obtained at the same time as the course itself. In this case, it is called a corequisite. Corequisite courses must be taken during the same term or prior to the selected course.

It is the student's responsibility to be aware of course prerequisites and corequisites which are listed in the course descriptions and also any courses required prior to the listed prerequisite(s). Faculty, in conjunction with the divisional dean or Dean of Student Affairs, may withdraw students who are enrolled in courses for which they do not have the prerequisite(s) or corequisite(s).

## (ACC) Accounting

ACC 111 Principles of Accounting I (4)
Fundamental accounting concepts, terms and procedures; analyzing, classifying and recording accounting data; subsidiary ledgers; special journals, adjusting and closing accounts; accounting cycle completion; financial statements; payroll and payroll taxes; control over cash; bank reconciliation. Prerequisite(s): CPE 061

ACC 112 Principles of Accounting II (4)
Accounting for a merchandising business, receivables, inventories, plant and intangible assets. Corporations: organization and equity rights, retained earnings and dividends. Additional emphasis on financial statements. Prerequisite(s): ACC 111

ACC 113 Principles of Accounting III (4)
Corporations--long term liabilities. Financial statement analysis, statement of cash flows, managerial accounting principles and systems, manufacturing operations and job order cost accounting, differential analysis.
Prerequisite(s): ACC 112

ACC 120 Microcomputer Accounting Systems (4)
Integrated accounting systems applications with use of microcomputer as primary tool for maintaining accounting records and financial statement generation. Use of windowsbased accounting software. Includes study of both service and merchandising businesses.
Prerequisite(s): ACC 111 or instructor permission
ACC 205 Spreadsheet Accounting (4)
Basic accounting applications applied using Microsoft Excel. Financial statement preparation, aging of accounts receivable, loan amortization, ratio analysis, payroll, depreciation, fixed assets covered. Sorting, filtering, formatting emphasized. Prerequisite(s): ACC 111, ACC 112, ITS 12 S
Corequisite(s): ACC 113
ACC 211 Intermediate Accounting I (4)
Review of accounting principles and procedures, including financial reporting, users of financial information and development of accounting standards. Advanced study of financial statements to include the income statement, retained earnings statement, balance sheet and statement of cash flows.
Prerequisite(s): ACC 112
ACC 212 Intermediate Accounting II (4)
Cash and receivables. Cost of goods sold and inventories including cost allocation, valuation, estimation and noncost valuation procedures. Noncurrent operating assets including acquisition, utilization, and retirement.
Prerequisite(s): ACC 113, ACC 211
ACC 213 Intermediate Accounting III (4)
Current, contingent and long-term liabilities. Owner's equity, including contributed capital and retained earnings.
Financial reporting and analysis.
Prerequisite(s): ACC 212
ACC 221 Tax Accounting I (4)
Theory of individual taxes and their application under the Internal Revenue Code. Introduction and preparation of individual tax returns.
Prerequisite(s): CPE 061
ACC 222 Tax Accounting II (4)
Introduction to business tax law and its application in the preparation of domestic federal, state and local corporate tax forms. A working knowledge in the preparation of personal property, sales, franchise tax returns.
Prerequisite(s): ACC 221
Corequisite(s): ACC 112
ACC 233 Cost Accounting (4)
Cost accounting principles including job order cost, process cost and standard cost accounting. Variance analysis and budgeting also covered.
Prerequisite(s): ITS 12S, ACC 113

ACC 250 Government and Nonprofit Accounting (4)
Fundamental accounting procedures for nonprofit and governmental institutions. To include state and local governmental accounting, accounting for health care organizations, and accounting for colleges and universities.
Prerequisite(s): ACC 113, ACC 211

## (AGR) Agriculture

AGR 104 Agricultural Survey and Employment Skills (3)
Survey of Agriculture Business and Horticulture Industries; career opportunities, goals, employability skills, including resumes, cover letters, interview preparation, professional development, college and degree requirements, student responsibilities; industry expectations.
Prerequisite(s): CPE 061

## AGR 105 Principles of Ag Sales I (3)

A basic course in sales functions. The role of selling, what it means and its relationship to marketing. Responsibilities of salespeople as a profession, traits for success, sales skills and professionalism.
Prerequisite(s): CPE 061
AGR 106 Principles of Ag Sales 11 (3)
An in-depth study of personal selling, including the importance of selling; establishing partnering relationships between salespeople and their customers; ethical and legal responsibilities confronting salespeople; concepts of buyer behavior; communication principles; and techniques in adaptive selling.
Prerequisite(s): AGR 105

## AGR 108 Technical Math for Agriculture (3)

Development and application of practical mathematic principles in agriculture including algebra, geometry and trigonometry fundamentals with emphasis on applications involving equations, percents, measurements, graphing and problem solving techniques.
Prerequisite(s): CPE 061
AGR 109 Animal Agriculture (4)
Introduction to animal science focusing on the economic importance of the livestock and poultry industries. Identification of basic types of livestock related to production, purpose and function. Instruction in feeds and nutrition, animal health and facility requirements.
Prerequisite(s): ENG 111

## AGR 115 Welding (3)

Introduction to basic principles and practices of shield metal arc and oxyacetylene welding.
Prerequisite(s): CPE 061
Lab Fee: \$25

## AGR 122 Plant Pests (4)

Identifying insects, diseases and weeds. A study of pest life cycles, types of damage and natural control.
Prerequisite(s): BIO 140
Lab Fee: \$25

AGR 133 Turf Science (3)
Routine cultural practices necessary for growing turf for specialized uses including mowing, fertilization, irrigation.
Prerequisite(s): CPE 061
Lab Fee: $\$ 10$

## AGR 143 Landscape Plant Materials (4)

Recognition of trees, shrubs, ground covers and related plant materials commonly used in landscapes, grounds, and golf courses. Usage, design, installation, care and culture of landscape plants utilizing a variety of learning resources.
Prerequisite(s): CPE 061
Lab Fee: \$10

## AGR 145 Herbaceous Plant Materials (4)

Recognition of annuals, perennials, bulbs and monocots used in the garden and landscape. Usage, design, installation and culture of herbaceous plants in the landscape utilizing a variety of learning resources.
Prerequisite(s): CPE 061
Lab Fee: \$10

## AGR 150 Soil Science (4)

A basic understanding of soils, the study of soil formation, physical properties, water movement, organic matter and soil organisms.
Prerequisite(s): CPE 061
Lab Fee: $\$ 25$

## AGR 151 Soil Fertility (4)

Principles of soil fertility, plant nutrient requirements, nutrient sources application methods and environmental concerns.
Prerequisite(s): AGR 150
Lab Fee: \$25
AGR 174 Agribusiness Principles (3)
Basic management principles for planning, organizing and operating a small agribusiness successfully.
Prerequisite(s): CPE 061
AGR 187 Small Gas Engines (4)
Introduction to basic principles of two-cycle and fourcycle small engine operation, applications, maintenance, lubrication, troubleshooting, service and repair.
Prerequisite(s): None
Lab Fee: \$25

AGR 189 Applied Practices in Agriculture I (1)
Application of agricultural or horticultural principles and techniques under supervision of college staff and faculty. Prerequisite(s): CPE 061

## AGR 19B Agricultural Business (4)

Co-op work experience in Agribusiness career field at industry location. Work site for full-time (40 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience required.
Prerequisite(s): AGR 104, plus minimum of 15 technical hours

AGR 19E Agricultural Engineering Co-op Experience I (4)
Co-op work experience in Agricultural Engineering career field at industry location. Work site for full-time (40 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience required.
Prerequisite(s): AGR 104, plus minimum of 15 technical hours

AGR 19G Golf Course Co-op Experience I (3)
Co-op work experience in Golf Course Maintenance career field at industry location. Work site for part-time (30 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience required.
Prerequisite(s): AGR 104, plus a minimum of 15 technical hours

AGR 19 Landscape Design Co-op Experience I (3)
Co-op work experience in Landscape Design career field at industry location. Work site for part-time ( 30 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience required
Prerequisite(s): AGR 104, plus a minimum of 15 technical hours

AGR 19N Nursery Operations Co-op Experience I (3)
Co-op work experience in Nursery Operations career field at industry location. Work site for part-time (30 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience required.
Prerequisite(s): AGR 104, plus a minimum of 15 technical hours

AGR 19P Parks and Recreation Co-op Experience I (0)
Co-op work experience in Parks and Recreation career field at industry location. Work site for part-time (30 hours) work for 10 weeks selected by the students with assistance from Agriculture Co-op instructor. Oral and written reports of the experience required.
Prerequisite(s): AGR 104, plus a minimum of 15 technical hours

AGR 19 T Turf and Landscape Operations Co-op Experience I (3) Co-op work experience in Turf and Landscape Operations career field at industry location. Work site for part-time (30 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience required.
Prerequisite(s): AGR 104, plus a minimum of 15 technical hours

AGR 206 Agribusiness Marketing (3)
Fundamental principles, policies, problems, structure and strategy of agribusiness marketing. Includes the role of marketing in agribusiness and the development of a marketing plan.
Prerequisite(s): AGR 174, ENG 111

AGR 214 Crop Production (4)
Adoption, utilization, cultural practices and cost analysis of major field and forage crops grown in Ohio. Product quality and commercial standards related to production. Computer programs specific to crop production inputs.
Prerequisite(s): BIO 140, ENG 111
Lab Fee: $\$ 10$
AGR 219 Landscape Construction (4)
Fundamental principles, theories and practices of landscape construction. Site plan and preparation, safety principles, tool use and identification, landscape and construction materials, job bid development and project management.
Prerequisite(s): CPE 061
Lab Fee: \$25
AGR 224 Irrigation Systems (3)
Irrigation system operation and design. Primary emphasis is toward turf and horticultural applications.
Prerequisite(s): CPE 061
Lab Fee: $\$ 25$
AGR 225 Landscape Maintenance (4)
Practices involved in the maintenance of landscape sites. Pruning, transplanting, mulching, watering and general plant care.
Prerequisite(s): CPE 061
Lab Fee: $\$ 25$
AGR 226 Landscape Design (4)
A basic study of landscape design concepts with emphasis on site planning, design principles, plant utilization and irrigation systems
Prerequisite(s): CPE 061
Lab Fee: \$20
AGR 231 Plant Propagation (4)
Principles, techniques, materials, and necessary facilities needed by commercial horticulture growers to propagate floral, greenhouse and landscape plants.
Prerequisite(s): CPE 061
Lab Fee: \$25
AGR 236 Turfgrass Management (3)
Management of turfgrass culture practices as applied to various turfgrass industries. Includes equipment selection and maintenance, fertilizer and pest management, scheduling, record keeping and budgeting.
Prerequisite(s): AGR 133
Lab Fee: \$20
AGR 245 Advanced Welding (4)
Introduction and application of the principles of DC SMAW (direct current-shielded metal arc), MIG (metal inert gas) and TIG (tungsten inert gas) welding.
Prerequisite(s): None
Lab Fee: \$25

AGR 252 Equipment Maintenance and Operation (4)
Practical development of best practices for selection, maintenance and operation of a green-industry equipment fleet. Development of service schedules, utilization of current technology and successful operational strategies for equipment resources.
Prerequisite(s): None
Lab Fee: $\$ 25$

## AGR 253 Pest Management (5)

Managing pest problems through approved practices of control using cultural, biological and chemical methods including the safe use, handling and application of pesticides. Individualized study of the student's special area of interest.
Prerequisite(s): AGR 122
Lab Fee: \$15

## AGR 262 International Ag Trade (3)

A study of agriculture and food policy both in the U.S. and internationally. The implications of world trade and political aspects of world food production. Food and agriculture problems, policy alternatives and their consequences.
Prerequisite(s): None
Corequisite(s): ENG 112
AGR 284 Agribusiness Management (4)
In-depth coverage of both creating and managing an agribusiness. Emphasis is on the steps necessary for creating a business plan.
Prerequisite(s): AGR 174, ENG 111
Corequisite(s): ENG 112
AGR 287 Computer Aided Landscape Design (4)
Two-dimensional computer aided landscape plans. Generate hardscapes and place plant material in digital format utilizing on-line and computerized library material. Create orthographic views from digital models, and/or from computer aided landscape site plans. Utilize automated project estimation tools.
Prerequisite(s): AGR 297 \& DFT 211
Lab Fee: \$15
AGR 289 Applied Practices in Agriculture II (1)
Application of agricultural or horticultural principles and techniques under supervision of college staff and faculty. Prerequisite(s): AGR 189

AGR 295 Agriculture Capstone Seminar (3)
Application of knowledge and skills learned in previous coursework and industry experience. Use of problemsolving skills to respond to a series of real world industry scenarios. Off-site casework may be required.
Prerequisite(s): AGR 151, 284, Co-op, plus 45 technical hours
Lab Fee: $\$ 10$
AGR 297 Landscape Design II (4)
Advanced study of landscape design concepts with emphasis on planning, designing and pricing diversified landscapes.
Prerequisite(s): AGR 226
Lab Fee: \$20

AGR 298 Applied Practices in Agriculture III (1)
Application of agricultural or horticultural principles and techniques under supervision of college staff and faculty. Prerequisite(s): AGR 289

AGR 29B Agribusiness Co-op Experience II (4)
A second Co-op work experience in chosen Agribusiness career field at industry location. Work site for full-time (40 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience or project required.
Prerequisite(s): AGR 104, AGR 19B
AGR 29E Agricultural Engineering Co-op Experience II (4)
A second Co-op work experience in Agricultural Engineering career field at industry location. Work site for full-time ( 40 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience or project are required.
Prerequisite(s): AGR 104, AGR 19E
AGR 29 G Golf Course Co-op Experience II (3)
A second Co-op work experience in Golf Course Maintenance career field at industry location. Work site for part-time (30 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience or project required.
Prerequisite(s): AGR 104, AGR 19G
AGR 29 Landscape Design Co-op Experience II (3)
A second Co-op work experience in Landscape Design career field at industry location. Work site for part-time ( 30 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience or project required.
Prerequisite(s): AGR 104, AGR 19L
AGR 29N Nursery Operations Co-op Experience II (3)
A second Co-op work experience in Nursery Operations career field at industry location. Work site for part-time (30 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience or project required.
Prerequisite(s): AGR 104, AGR 19N
AGR 29P Parks and Recreation Co-op Experience II (3)
Co-op work experience in parks and recreation career field at industry location. Work site for full-time (40 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience required.
Prerequisite(s): AGR 104, AGR 19P
AGR 29 T Turf and Landscape Operations Co-op Experience I (3) Co-op work experience in Turf and Landscape Operations career field at industry location. Work site for part-time (30 hours) work for 10 weeks selected by the student with assistance from Ag Co-op instructor. Oral and written reports of the experience or project required.
Prerequisite(s): AGR 104, AGR 19T

## (ART) Art

## ART 111 Drawing I (3)

Explores the use of line value, shape and color in developing visual drawing skills. Two and three-dimensional problems are given. Also included is the study of location of forms in space, their proportion and structure with light and shade as well as perspective.
Prerequisite(s): CPE 061
Lab Fee: \$5

ART 112 Drawing II (3)
Continuing representational and contemporary problems with complex composition arrangements, wet/dry media and simple color drawing to develop visual skills. Use of still life, landscape and introduction to some figure work. Explores the use of line, value, shape and color in developing visual drawing skills. Study of location of forms in space, their proportion and structure with light and shade as well as perspective. Introduction to figure drawing.
Prerequisite(s): ART 111
Lab Fee: \$5
ART 113 Drawing III (3)
Interpretation of the figure using wet and dry media, black and white and simple color. For both fine and graphic design artists.
Prerequisite(s): ART 112
Lab Fee: $\$ 20$
ART 114 Drawing IV (3)
Continued interpretation of the figure. Emphasis is placed on increasing the drawing vocabulary and the development
of personal approaches to the medium.
Prerequisite(s): ART 113
Lab Fee: \$20
ART 130 Appreciation of the Arts (3)
Awareness and aesthetic appreciation of literature, painting, sculpture, architecture, music and dance within an historical context. Individual works used to illustrate the nature and problems of the creative experience and its relationship to the historical, cultural and social environment.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass Score
Corequisite(s): ENG 111
ART 133 Art History I (3)
Survey of visual art from medieval times to Renaissance. Introduction to basic concepts of visual and stylistic analysis.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111

## ART 134 Art History II (3)

Survey of visual art from late medieval times to beginnings of the modern era.
Prerequisite(s): CPE 061 andCPE 071 or appropriate Compass score
Corequisite(s): ENG 111

ART 135 Art History III (3)
Survey of visual art during post impressionist to modern era.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
ART 213 Painting I (3)
Color principles studied with application to transparent painting on paper. Form, space and color studied as they apply to water-based paints. Still life, landscape and figure work studied as themes.
Prerequisite(s): ART 113, GPH 105
Lab Fee: $\$ 10$
ART 214 Painting II (3)
Basic color principles studied and applied in opaque painting. Various approaches to application explored as well as study of form, space, composition and technique.
Prerequisite(s): ART 213
Lab Fee: $\$ 10$

ART 215 Painting III (3)
The continued study of painting as an expressive medium. Exploration in technique and the development of personal approaches are encouraged. Student can select medium and subject.
Prerequisite(s): ART 214
Lab Fee: $\$ 10$
ART 216 Painting IV (3)
An advanced study of painting as an expressive medium. Exploration in technique and the development of personal approaches are expected. Student selects medium and subject.
Prerequisite(s): ART 215
Lab Fee: $\$ 10$

## (BIO) Biology

BIO 102 Medical Terminology (3)
Understand the language of medicine and expand vocabulary to better communicate with physicians, nurses and other health personnel. Use of medical dictionaries and develop an understanding of the meanings of medical terms including prefixes, suffixes and root words. Learn to use abbreviations for medical documentation and apply knowledge of medical terminology.
Prerequisite(s): CPE 061 or appropriate Compass score

## BIO 105 Fundamentals of Anatomy and Physiology (4)

The human body's structure and function with emphasis on major body systems.
Prerequisite(s): CPE 061 or appropriate Compass score
BIO 110 Fundamentals of Human Biology (4)
The human organism: structure and organization, integrity and homeostasis, metabolism, responsiveness, reproduction, growth and development. Aging, diseases and disorders included.
Prerequisite(s): CPE 061 and CPE 091
Lab Fee: \$40

BIO 118 Muscle Function (2)
Study of skeletal structure and function and the origin, insertion and action of trunk and extremity muscles. Introduction to palpation and muscle function during activities.
Prerequisite(s): CPE 061 or appropriate Compass score, instructor permission

BIO 121 Anatomy and Physiology I (4)
Human cells, tissues, skin, bones, muscles, nervous system cells, autonomic nervous system.
Prerequisite(s): CHM 110
Corequisite(s): BIO 102
Lab Fee: \$25
BIO 122 Anatomy and Physiology II (4)
Human circulatory, respiratory, urinary, digestive systems, acid-base and fluid and electrolyte balance, metabolism.
Prerequisite(s): BIO 102, BIO 121
Corequisite(s): None
Lab Fee: \$25
BIO 123 Anatomy and Physiology III (4)
Central and peripheral nervous system, special senses, endocrine and lymphatic systems, immunity, reproduction and development.
Prerequisite(s): BIO 122
Lab Fee: \$25
BIO 131 Microbiology I (4)
Study of bacteria, fungi, protista, rickettsiae, chlamydia, viruses, and helminths. Emphasis on bacteria and their relationship to health.
Prerequisite(s): CPE 061 or appropriate Compass score Lab Fee: \$90

BIO 140 Plant Science (4)
Basic structure and function of plants, including growth, vegetative, and reproductive structures, heredity, photosynthesis, respiration and the control of growth and development.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
Lab Fee: \$40
BIO 141 Evolution, Diversity and Ecology (5)
Evolution, diversity and ecology of organisms. Processes by which organisms change over time, the diversity of life that results from such changes and the adaptations that occur allowing organisms to exist in a changing environment.
Prerequisite(s): CPE 061 or appropriate Compass score. Lab Fee: \$40

BIO 142 The Human Organism ()
The human as organism; a comparative look at structure, function and behavior.
Prerequisite(s): CPE 061 or appropriate Compass score. Lab Fee: \$40

BIO 143 Cell Biology/Genetics (5)
Cell biology and genetics. Cellular molecules, cellular anatomy, cellular processes including respiration and photosynthesis, cellular reproduction. Mendelian and molecular genetics. Prerequisite(s): CPE 061 or appropriate Compass score, high school chemistry or instructor permission.
Lab Fee: $\$ 40$

## BIO 230 Biomechanics (4)

The science of human motion and the systematic application of mechanical laws to movement. Includes fundamentals of posture, gait analysis, continuation of palpation; professional behavior. Laboratory practice.
Prerequisite(s): BIO 118, BIO 121, PTA 120
Corequisite(s): BIO 122, PTA 145
Lab Fee: \$15

## BIO 295 Special Topics in Biology: Field Experience (1)

This course is required to be taken concurrently with BIO 110 and BIO 111, Fundamentals of Biology and Biology I for transfer students only. Course will consist of an eight (8) hour Saturday field experience along with an assigned project.
Prerequisite(s): CPE 061
Corequisite(s): BIO 110 \& BIO 111

## (CHM) Chemistry

CHM 110 Fundamentals of Chemistry (5)
Concepts in chemistry for students requiring only one chemistry course for their major. Classification and properties of matter, atomic structure and periodicity, ionic and covalent compounds, moles and molarity, acids and bases, energy in chemical reactions, introduction to nuclear, organic and biochemistry. Laboratory meetings: 2 hours/week.
Prerequisite(s): CPE 061 and CPE 101 or appropriate Compass score
Lab Fee: \$15
CHM 114 Introduction to General Chemistry Review (4)
Intended as a review course prior to taking General Chemistry (CHM 121) for students who have completed high school chemistry. Introduction to the composition, structure, properties and transformations of matter, including dimensional analysis, atomic structure, bonding, chemical reactions, states of matter, energy changes, solutions, reaction rates and chemical equilibrium, acids and bases.
Prerequisite(s): CPE 061 and CPE 101 or appropriate Compass score, For AS students CPE 103 is highly recommended. Corequisite(s): ENG 111

CHM 115 Introduction to General Chemistry (5)
Intensive preparation(equivalent to a year of high school chemistry) for General Chemistry (CHM 121). Introduction to the composition, structure, properties, and transformations of matter, including dimensional analysis, atomic structure, bonding, chemical reactions, states of matter, energy changes, solutions, reaction rates and chemical equilibrium, acids and bases. Laboratory meetings: 2 hours/week.
Prerequisite(s): CPE 061, CPE 101 or appropriate Compass score. For AS Students CPE 103 is highly recommended. Corequisite(s): ENG 111
Lab Fee: $\$ 15$

CHM 116 Introduction to Organic and Biological Chemistry (5) Introduction to the structures, chemical and physical properties of hydrocarbons, alcohols, phenols, ethers, aldehydes, ketones, carbohydrates, carboxylic acids, esters, lipids, amides, amino acids, proteins. Introduction to the role of enzymes and vitamins in metabolism. Emphasis on health-related applications. Laboratory meetings: 2 hours/week.
Prerequisite(s): CPE 101 or appropriate Compass score and CHM 114 or CHM 115 or high school chemistry within 5 years
Corequisite(s): ENG 111
Lab Fee: \$20
CHM 121 General Chemistry I (5)
Basic chemical principles of elements, compounds and mixtures. Theory, principles and applications of structure of atoms, molecules, formula units including bonding and VSEPR. Principles and applications of stoichiometry, reactivity, energy and thermochemistry. Laboratory meetings: 3 hours/week.
Prerequisite(s): CPE 071 or app. Compass score \& CHM 115 or HS chemistry and passing chemistry placement test, CPE 103, or app score on the math placement test.
Corequisite(s): MTH 120 or MTH 121 and ENG 111
Lab Fee: \$30
Course Descriptions
CHM 122 General Chemistry II (5)
Theory, principles and applications of properties of solids, liquids and gases including gas laws, phase changes and colligative properties. Theory, principles and applications of chemical reactions including chemical kinetics, chemical equilibrium, acids, bases, applications of equilibrium (buffers, common ion effect, solubility products). Laboratory meetings: 3 hours/week.
Prerequisite(s): CHM 121 and ENG 111
Corequisite(s): MTH 122 and ENG 112
Lab Fee: \$30

## CHM 123 General Chemistry III (5)

Theory, principles and applications of quantitative and descriptive chemistry emphasizing: thermodynamics, electrochemistry, main group chemistry, coordination chemistry, solid state chemistry, nuclear chemistry, organic chemistry and biochemistry. Laboratory meetings: 3 hours/week.
Prerequisite(s): CHM 122
Lab Fee: \$30
CHM 211 Organic Chemistry I (5)
Nomenclature, structure and stereochemistry of carbon compounds. Chemical and physical properties of alkanes and cycloalkanes and related compounds. Infrared spectroscopy and nuclear magnetic resonance. Laboratory meetings: 3 hours/week.
Prerequisite(s): CHM 123
Lab Fee: \$35

CHM 212 Organic Chemistry II (5)
Chemical and physical properties of unsaturated hydrocarbons, oxygen containing carbon compounds, aromatic compounds and their derivatives, organic synthesis of polymers. Laboratory meetings: 3 hours/week.
Prerequisite(s): CHM 211
Lab Fee: \$35
CHM 213 Organic Chemistry III (5)
Polycyclic compounds, amines and related compounds. Chemistry of biomolecules and biochemical synthesis and metabolism. Laboratory meetings: 3 hours/week.
Prerequisite(s): CHM 212
Lab Fee: \$35

## (COM) Communication

COM 111 Interpersonal Communication (3)
Introduction to intrapersonal and interpersonal communication processes, focusing on effective ways of expressing oneself and understanding others through various communication theories. We will look at listening, understanding the self, conflict, power, perception, etc.
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): CPE 071

## COM 121 Effective Speaking I (3)

Introduction to public speaking processes which are designed to help individuals communicate effectively in a variety of speaking situations. This course focuses on developing, organizing, preparing, delivering, and analyzing public presentations. The online course is not recommended for those students who suffer from speech anxiety.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
COM 131 Introduction to Mass Communication (3)
A study of newspapers, radio, television, magazines, public relations, advertising, photojournalism and allied topics as well as the analysis of forces and institutions affecting media behavior, and the resulting quality of performance.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
COM 200 Basic Reporting and News Writing (3)
A beginning course in reporting and news writing with an emphasis on journalistic style and grammer, basic news story structure, the interview, coverage of speeches and meetings and elementary feature writing for print and electronic media. Also examine laws and ethics.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
COM 221 Effective Speaking II (3)
Presentation design with an emphasis on elements of argumentation, building a strong case with appropriate evidence, order of arguments and delivery for a specific audience outcome.
Prerequisite(s): COM 121
Corequisite(s): ENG 112

A planned, structured, work experience in a professional work setting. Apply classroom theory and acquire new knowledge and skills. Learn about, react to and write about internship organization and internship experience.
Prerequisite(s): Minimum of 60 credit hours and ENG 112

## (COR) Correction

COR 100 Introduction to Corrections (4)
Survey of the corrections system, including history and growth; role in the criminal justice system; components of the correctional process; local, state and federal corrections establishments; structures and operations; present and future issues.
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): CRJ 100

COR 105 Probation and Parole (4)
History and philosophy of probation, aftercare and other community programs for juvenile and adult offenders; function and philosophy of parole, current laws and case studies.
Prerequisite(s): COR 100
Corequisite(s): CRJ 120

## COR 130 Adult/Juvenile Corrections (4)

Facilities, programs and procedures for detention and incarceration; variations due to age, sex, offense of individual, social structure of facilities; humanistic control of incarcerated persons.
Prerequisite(s): COR 100, CRJ 120

## COR 280 Jail Practicum (4)

Field service training, educational experience through appropriate observation and work assignment to witness function and operation of the jail, case laws, current trends.
Prerequisite(s): COR 130, COR 100, CRJ 120

## COR 281 Juvenile Institutions Practicum (4)

Field service training, designed to broaden educational experience through appropriate observation and work assignment in state operated juvenile correction facilities. Prerequisite(s): COR 280

COR 282 Adult Institutions Practicum (4)
Field service training, designed to broaden educational experience through appropriate observation and work assignment in state operated adult corrections facilities.
Prerequisite(s): COR 280

## (CPE) Comprehension

CPE 061 Reading Comprehension I (4)
A semi-individualized program of reading skill development, including general reading comprehension, vocabulary development and study skills strategies. Institutional credit only.
Prerequisite(s): Reading Placement test score below the CSCC standard

CPE 062 Reading Comprehension II (4)
A continuation of reading skill development begun in CPE 061, including general reading comprehension, vocabulary development and study skills strategies. Institutional credit only.
Prerequisite(s): Reading Placement test score below the CSCC standard or CPE 061

## CPE 071 Writing Fundamentals (4)

This course is designed to prepare you for the writing abilities and requirements of English 111 and 112 as well as the specific writing needs for your individual areas of concentrated study. The course attempts to improve sentence and writing skills by combining exercises in grammar/mechanics and weekly writing assignments. Development of topic and ideas to support topic sentences in an organized and coherent manner will also be covered. Institutional credit only.
Prerequisite(s): Writing Placement test result below the CSCC standard

## CPE 072 Writing Fundamentals II (4)

This course attempts to build on the writing skills of students at the sentence and paragraph level while introducing the students to a variety of essay formats, language issues and basic library research.
Prerequisite(s): CPE 071 with a grade of $C$ or appropriate COMPASS score
Corequisite(s): CPE 062 or appropriate COMPASS score
CPE 091 Math Fundamentals (4)
Topics include whole numbers, mixed numbers, fractions, decimals, percentages, ratios and proportions and the metric system. Institutional credit only.
Prerequisite(s): Math placement test score below the CSCC standard

CPE 101 Introductory Algebra I (4)
An introduction to basic algebra including operations with integers, solving linear and literal equations (with applications), operations with polynomials and factoring. Institutional credit only.
Prerequisite(s): Algebra Placement test score below the CSCC standard

CPE 102 Introductory Algebra II (4)
Topics include rational expressions, equations containing rational expressions (with applications), graphs of points and lines, slope and linear systems in two variables. Institutional credit only.
Prerequisite(s): Algebra Placement Test score below the CSCC standard

## CPE 103 Introductory Algebra III (4)

Selected topics from plane geometry with applications; positive, negative and fractional exponents; scientific notation; simplifying, rationalizing and operations with radicals; quadratic equations with applications; introduction to functions and graphing. Institutional credit only.
Prerequisite(s): Algebra Placement test score below the CSCC standard

## (CRJ) Criminal Justice

CRJ 100 Introduction to Criminal Justice (4)
Overview of the criminal justice system's history, development and evolution including subsystems of police, courts and corrections.
Prerequisite(s): CPE 061 or appropriate Compass score

## CRJ 112 Traffic Management (3)

The principles of traffic control, accident reconstruction and enforcement of the law.
Prerequisite(s): CPE 061 or appropriate Compass score

## CRJ 116 Systems Approach to Computer Technology (3)

The management of police departments through computer applications, using data base, electronic spreadsheet and other commercial software.
Prerequisite(s): CPE 061 or appropriate Compass score Lab Fee: \$60

## CRJ 118 Forensic Photography (3)

The application of photography to criminal and civil investigations, including the preparation of courtroom presentation.
Prerequisite(s): PHO 111
Lab Fee: $\$ 25$
CRJ 120 Juvenile Procedures (3)
The juvenile justice system's parts and subcultures; causative factors of, prevention of and treatment programs for juvenile delinquency.
Prerequisite(s): CPE 061 or appropriate Compass score
CRJ 123 Patrol Operations (3)
A comprehensive study of police patrol operations, including vehicle patrol techniques, foot patrol, crimes in progress, prowler calls, building searches and stops and approaches.
Prerequisite(s): CPE 061 or appropriate Compass score

## CRJ 125 Community Policing (3)

Principles of community policing including youth focused activities, community based crime prevention, reorientation of patrol, police/public accountability and decentralizing police decision making.
Prerequisite(s): CPE 061 or appropriate Compass score

## CRJ 201 Police Administration (3)

Examination of administrative design, including personnel selection, training, advancement, discipline and utilization of resources.
Prerequisite(s): CPE 061 or appropriate Compass score

## CRJ 216 Community Relations (3)

The development of skills to resolve communication problems between citizens and the police.
Prerequisite(s): CPE 061 or appropriate Compass score

## CRJ 221 Forensic Science I (5)

The search for, recognition of and preservation of physical evidence found at crime scenes.
Prerequisite(s): CPE 061 or appropriate Compass score Lab Fee: \$15

CRJ 223 Forensic Science II (5)
Familiarization with selected laboratory techniques commonly used by law enforcement agencies.
Prerequisite(s): CRJ 221
Lab Fee: \$15
CRJ 226 Interview and Interrogation (3)
Examines the dynamics of the art of interviewing and interrogation of witnesses, victims and suspects.
Prerequisite(s): CPE 061 or appropriate Compass score
CRJ 228 Criminal Investigation (3)
Reconstruction of the sequences of a criminal act, including searching, preserving and evaluating physical evidence.
Prerequisite(s): CPE 061 or appropriate Compass score
CRJ 230 Social Justice (3)
Exploration of job stresses; the social value and ethics of the criminal justice process.
Prerequisite(s): CPE 061 or appropriate Compass score
CRJ 231 Criminal Law (3)
Overview of the criminal procedures, criminal law, common defense and prosecutorial processes.
Prerequisite(s): CPE 061 or appropriate Compass score

## CRJ 232 Ohio Criminal Code (3)

The explanation of Ohio's statutory code; elements of offenses and lesser included offenses.
Prerequisite(s): CPE 061 or appropriate Compass score

## CRJ 250 Community Resources (3)

A service learning class where the student will weekly participate in two hours of seminar discussion and 8 hour of practicum in a related field. The student will learn what resources are available to police officers such as homeless shelters, detoxification centers and food pantries.
Prerequisite(s): CPE 061 or appropriate Compass score
CRJ 280 Practicum (3)
Supervised work experience in criminal justice agencies for purpose of increasing student understanding of the criminal justice process.
Prerequisite(s): CRJ 100, CRJ 112,CRJ 116,CRJ 118, CRJ 120, CRJ 123, CRJ 125, CRJ 201, CRJ 216, CRJ 221, CRJ 222, CRJ 226, CRJ 228, CRJ 231

CRJ 287 Basic Law Enforcement I (8)
Law enforcement skills and techniques to fulfill partial requirements for peace officer training certification as required by the Attorney General's office and the Ohio Peace Officer's Training Council.
Prerequisite(s): None
Corequisite(s): CRJ 289
Lab Fee: \$530

CRJ 289 Basic Law Enforcement II (8)
Law enforcement skills and techniques to fulfill partial requirements for peace officer training certification as required by the Attorney General's Office and the Ohio Peace Officer's Training Council.
Prerequisite(s): None
Corequisite(s): CRJ 287
Lab Fee: \$530

## (CSD) Computer Software Development

CSD 105 Programming Fundamentals (4)
Fundamental programming constructs and concepts. Includes the study of variables, constants, looping, strings, flowcharting basics, programming logic and data validation techniques. Introduction to object-oriented programming.
Prerequisite(s): Equivalent to ITS 080, keyboarding skills Lab Fee: \$20

## CSD 119 Programming with ADO.NET (5)

Knowledge and skills needed to build data-centric applications and web services. Integration of MS ADO.NET, SQL server, and the .NET framework.
Prerequisite(s): CPE 101, CSD 114

## CSD 121 Visual Basic Programming I (4)

Programming concepts and techniques including input/output, arithmetic and logic operations, looping, file handling, report generation, data types and structures. Practical applications written, entered, tested and debugged using principles of the Visual Basic programming language.
Prerequisite(s): CSD 105
Lab Fee: \$20

## CSD 122 Visual Basic Programming II (4)

Advanced Visual Basic programming techniques. Builds on concepts learned in Visual Basic Programming I.
Prerequisite(s): CSD 121
Lab Fee: \$20

## CSD 145 Unix Concepts (4)

Broad background of concepts, facilities and characteristics of contemporary operating systems. Surveys at a conceptual level and offers examples of the role, scope and complexity of operating systems. Concentration on the Linux operating system.
Prerequisite(s): CSD 104
Lab Fee: \$10

## CSD 150 Database Administration (5)

Install and configure a MS SQL Server Database. Manage and maintain data, configure and manage security, monitor and maintain database and troubleshoot problems.
Prerequisite(s): ITS 110
Lab Fee: \$10

## CSD 160 Database Design (5)

Database design theory (specifically back-end relational databases utilizing MS SQL Server). Database structure; programming databases using transact-SQL. Basic and advanced topics regarding database creation/manipulation/report production/user interfaces. Designing and Implementing databases with MS SQL Server 7.0.
Prerequisite(s): ITS 110
Lab Fee: \$10
CSD 201 Oracle Database Development I (5)
Oracle Database applications development. Emphasizes client/server database architecture. Integration of content and theory with tutorial exercises.
Prerequisite(s): ITS 110
Lab Fee: \$20
CSD 202 Oracle Database Development II (5)
Database development activities using SQL commands. PL/SQL programming. Advanced Forms Builder and Reports.
Prerequisite(s): CSD 201
Lab Fee: $\$ 20$

## CSD 208 Programming XML Web Services (3)

Knowledge and skills needed to develop XML Web Services. Build, deploy, locate and consume Extensible Markup Language (XML) Web Services. Focus on MS Visual Studio, MS ASP, and Universal Description, Discovery, and Integration (UDDI).
Prerequisite(s): CSD 119, ITS 108
Lab Fee: $\$ 20$
CSD 216 C Concepts I (5)
Knowledge and skills needed to develop C\# applications for the Microsoft .NET Platform. Focuses on C\# program structure, language, syntax and implementation details. Object-oriented and type-safe programming language concepts.
Prerequisite(s): CSD 104 or Instructor Permission
Lab Fee: $\$ 20$

## CSD 217 C Concepts II (5)

Knowledge and skills needed to build Windows applications. Utilization of the Microsoft.NET Framework. Topics to include Windows Forms, GDI+, threading, simple remoting, etc. Security and deployment issues.
Prerequisite(s): CSD 216
Lab Fee: \$20
CSD 220 Systems Analysis (4)
Integration of principles from management information systems theory and data processing to identify managerial information needs. Development of systems to provide that information. Topics include: information gathering tools and techniques, analysis tools and techniques and project management tools and techniques. A structured approach to development of information systems.
Prerequisite(s): CSD 104
Lab Fee: \$10

CSD 222 Systems Design (4)
Design of computer-based information systems. Requirements, methodology and technical skills related to system specification, system design, development and documentation.
Prerequisite(s): CSD 220
Lab Fee: \$10

## CSD 224 Java Concepts I (4)

Programming concepts and techniques including input/output, arithmetic and logic operations, looping, file handling, report generation, data types and structures. Practical applications written, entered, tested and debugged using principles of the Java programming language.
Prerequisite(s): CSD 104 or instructor permission Lab Fee: \$20

## CSD 225 Java Concepts II (4)

Advanced object-oriented, event-driven programming techniques with emphasis on creating client applications. Builds on concepts learned in Java Concepts I.
Prerequisite(s): CSD 224
Lab Fee: \$20
CSD 270 Creating and Publishing Web Sites (4)
Creating and editing web pages using a collection of different technologies. Standard programming language concepts and actual publishing of web pages. Creation of an e-commerce site.
Prerequisite(s): ITS 107, ITS 110, CSD 104
Lab Fee: \$20

## (DAN) Dance

DAN 100 Beginning Dance (1)
Basic movement class for students with no previous dance experience. Placement exercises, movement combinations to improve flexibility and movements common to ballet and modern dance
Prerequisite(s): None
DAN 111 Ballet I (3)
Basic fundamentals and theory of classical ballet for beginning students. Includes barre work, center combinations and traveling sequences.
Prerequisite(s): None
DAN 112 Ballet II (3)
Ability to apply concepts and refine techniques learned in Ballet I. More advanced ballet techniques and concepts. Knowledge of 20th century ballet. Includes barre work, center combinations and traveling sequences.
Prerequisite(s): DAN 111
DAN 113 Advanced Intermediate Ballet (3)
Continuation of ballet fundamentals from Ballet I and Ballet II. Increased awareness of the relationship between movement and music. Includes barre work, center floor work, traveling sequences in each class.
Prerequisite(s): DAN 111, DAN 112

DAN 120 Modern Dance I (3)
Fundamental movement principles demonstrating body awareness and alignment. Includes barre work, center floor work and locomotor patterns of movement using primarily modern dance technique. Awareness of the origins of modern dance.
Prerequisite(s): None
Corequisite(s): None

DAN 130 Jazz Dance I (3)
Basic fundamentals of jazz technique. Warm-up, simple jazz style exercises, isolations, floor movements, movement dynamics, basic dance fundamentals and vocabulary in the jazz idiom
Prerequisite(s): None

## DAN 131 Jazz Dance II (3)

Intermediate level of jazz dance techniques. Includes combinations, isolations, jumps, leaps and turns. Work on styles, speed and balance.
Prerequisite(s): DAN 130
DAN 132 Jazz Dance III (3)
Advanced level jazz technique. Advanced movement sequences. Continued study of jazz artists and choreography.
Prerequisite(s): DAN 131
DAN 135 Tap Dance I (3)
Basic fundamentals of tap technique. Basic steps, rhythm and combinations.
Prerequisite(s): None

## DAN 136 Tap Dance II (3)

Continued fundamentals of the tap technique and vocabulary.
Further work in basic steps, rhythms and combinations.
Prerequisite(s): DAN 135
DAN 137 Tap Dance III (3)
Advanced fundamentals of tap technique, including steps, rhythms and combinations.
Prerequisite(s): DAN 136
DAN 140 Movement for Actors (3)
Movement principles for actors. Body alignment, weight transference, simple movements and movement combinations.
Prerequisite(s): none
DAN 150 Composition I (2)
Basic choreographic factors using a single dancer. Study of historical styles and movement qualities.
Prerequisite(s): DAN 112
Lab Fee: \$50
DAN 160 Dance History (3)
Survey the major aspects of Western theatrical dance from sixteenth century through the twentieth century.
Prerequisite(s): None

DAN 215 Pointe Technique I (2)
Application of advanced ballet technique en pointe. Prerequisite(s): None

## DAN 296 Independent Study: Choreography (2)

Basic fundamentals of choreography. Students must learn to work as a group to organize a dance piece.
Prerequisite(s): DAN 100

## (DFT) Drafting

## DFT 101 Drafting I (3)

Instruments and their uses, lettering, dimensioning, geometrical construction, sketching and orthographic drawing.
Prerequisite(s): CPE 061
Lab Fee: \$15

## DFT 102 Drafting II (3)

Auxiliary views, sections, fasteners, welding symbols, riveting, developed views, pictorial drawings including isometric and perspective views and fundamentals of design. All work drawn and dimensioned in accordance with ASME Y 14.100.
Prerequisite(s): DFT 101 or 2 years high school drafting Lab Fee: \$15

## DFT 111 Architecture I (4)

Introduction to architectural design and drafting. Research, preliminary design, formal presentation drawings, model building and design projects.
Prerequisite(s): DFT 211
Lab Fee: \$15

## DFT 112 Architecture II (4)

Continuation of Architecture I. Use of a CAD system for production of working drawings, site plans, floor plans, elevations, sections and details.
Prerequisite(s): DFT 211
Lab Fee: \$15
DFT 203 Technical Publication (4)
Graphic communication with computer methods of drawing construction. Isometric, one point and two point perspective techniques used to construct part, exploded and sectioned assembly drawings. Drawings merged into a desktop publishing program for the addition of notes, assembly/ repair instructions and specifications for the preparation of assembly and repair manuals.
Prerequisite(s): DFT 214, ENG 223
Lab Fee: $\$ 15$

## DFT 211 Computer-Aided Design I (4)

Microcomputer system with Windows and AutoCAD software to construct two-dimensional mechanical drawings. Use of Windows and AutoCAD commands to produce drawings and fully dimension them according to ANSI standards. Drawings plotted fullsize and at scale as required.
Prerequisite(s): DFT 101 or two years h.s. drafting, ENT 121, or INT 105
Lab Fee: \$15

DFT 212 Computer- Aided Design II (4)
Continuing the use of the Windows version of AutoCAD software with microcomputer systems as applied to libraries, three-dimensional wire frame drawings and custom menus.
Prerequisite(s): DFT 211, DFT 102
Lab Fee: \$15

## DFT 214 Solid Modeling (4)

Two-dimensional drafting and three dimensional solid model assemblies. Generating 2D and 3D elements, integrating 2D/3D elements, creating orthographic views from solid models and parametric modeling. Inventor used.
Prerequisite(s): DFT 211
Lab Fee: \$15

## DFT 215 Advanced Solid Modeling (3)

Use of Windows version of AutoCAD software with microcomputer systems to write programs to automate the drafting and design process. Increasing productivity using programs to eliminate excessive numbers of drafting steps, make global drawing changes and simplify drafting of similar parts. Inventor used.
Prerequisite(s): DFT 214
Lab Fee: \$15

## (EBE) Experienced Based Education

EBE 100 Employability Skills (2)
Life, career and educational goals; resume and cover letter; research organization; interviewing skills, discussion of professional image; follow-up letter.
Prerequisite(s): CPE 061
Lab Fee: \$5

## EBE 110 Prior Learning Portfolio Development (3)

The development of a portfolio to be assessed for credit for prior learning experiences. Topics include an overview of experiential learning, development of a chronological record, writing a goals paper, writing learning statements, documentation of learning experiences and development of a portfolio.
Prerequisite(s): This course is required if seeking more than 4 hours of experiential credit. Approval of Coordinator of Prior Learning Portfolio Program

## EBE 282 Co-Op Education I (2)

Relating academic studies to the world of work, familiarity with a particular career, application of the principles and theories learned in classroom experiences, establishing learning outcomes and preparing related reports. Workplace learning of a minimum of 200 documented hours.
Prerequisite(s): EBE 100 and approved co-op placement
Corequisite(s): EBE 287

## EBE 283 Co-Op Education I (3)

Relating academic studies to the world of work, familiarity with a particular career, application of the principles and theories learned in classroom experiences, establishing learning outcomes, and preparing related reports. Workplace learning of a minimum of 300 documented hours. Prerequisite(s): EBE 100 and approved co-op placement

EBE 284 Co-Op Education I (4)
Relating academic studies to the world of work, familiarity with a particular career, application of the principles and theories learned in classroom experiences, establishing learning outcomes, and preparing related reports. Workplace learning of a minimum of 400 documented hours.
Prerequisite(s): EBE 100 and approved Co-op placement

## EBE 292 Co-Op Education II (2)

Continuation of valuable work experience. In addition to requirements of EBE 282, a special project is required based on the technology. Workplace learning of a minimum of 200 documented hours.
Prerequisite(s): EBE 282 or EBE 283 or EBE 284; and approved Co-op placement

## EBE 293 Co-Op Education II (3)

Continuation of valuable work experience. In addition to requirements of EBE 283, a special project is required based on the technology. Workplace learning of a minimum of 300 documented hours.
Prerequisite(s): EBE 282 or EBE 283 or EBE 284; and approved Co-op placement

## EBE 294 Co-Op Education II (4)

Continuation of valuable work experience. In addition to
requirements of EBE 284, a special project is required based on the technology. Workplace learning of a minimum of 400 documented hours.
Prerequisite(s): EBE 282 or EBE 283 or EBE 284; and approved Co-op placement

## (ECE) Early Childhood Education

ECE 101 Professional Development for Educators (1)
Explore professional development options. Examine own potential learning style and study needs. Criteria for performancebased assessment for beginning teachers.(PRAXIS)
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): ECE 102
Lab Fee: $\$ 10$

ECE 102 Introduction to Early Childhood Education (4)
An introduction to the historical development of early childhood education, types of programs, the physical environment, educational theory and the development of the child.
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): ECE 101
Lab Fee: \$30
Student Liability Insurance: \$20
ECE 108 Observing and Assessing Young Children (4)
Observing, recording, assessing, and interpreting behaviors of young children with emphasis on a variety of assessment tools and appropriate methodologies for collecting data for decision-making.
Prerequisite(s): CPE 061 or appropriate COMPASS score, ECE 102, ECE 101
Lab Fee: $\$ 25$

ECE 110 Infant/Toddler Education (3)
Infant and toddler developmental milestones, appropriate environment and practices for stimulation and learning, educational theory and recent brain research concerning the first three years of life, health and safety aspects of group care for infants and toddlers.
Prerequisite(s): ECE 102, CPE 061 or appropriate Compass score
Lab Fee: $\$ 25$
ECE 114 Art, Music and the Child (3)
Creativity of the child in art, music, movement. Resources
for developing and implementing curriculum.
Prerequisite(s): CPE 061 or appropriate Compass score Lab Fee: \$35

ECE 115 Resources in Early Childhood Education (2)
Making teaching materials and audio-visuals. Early childhood technology and use in the clasroom. Making free or inexpensive materials. Examination of cost, storage, use of teaching aids. Exploration of community resources, professional organizations, and parent communication.
Prerequisite(s): ECE 102, CPE 061 or appropriate COMPASS score
Lab Fee: $\$ 25$

ECE 120 Language Development and the Child (3)
Communication of the child, developmental stages, language disabilities, language screening, curriculum development for the typical/atypical child and literature selection/evaluation for children from birth to 8 years of age.
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): ECE 102 or Instructor permission Lab Fee: $\$ 25$

ECE 210 Children's Literature (3)
Comprehensive study of children's literature and how to use it effectively with young children from birth to age eight based on NAEYC's developmentally appropriate practice of literacy experiences. Designed to expose students to many titles of award winning children's literature and teach basic book handling skills.
Prerequisite(s): ECE 102 or Instructor permission Lab Fee: \$25

ECE 211 Sensory Motor Skills (3)
Motor development of the young child with emphasis on perceptual motor abilities, physical abilities, theory, activities enhancing movement in the classroom and physical education as a part of the curriculum for the prekindergarten/schoolage child.
Prerequisite(s): ECE 102, CPE 061 or appropriate Compass score
Lab Fee: $\$ 25$
ECE 213 Health, Safety and Nutrition (3)
Role of the teacher in preventing accidents; providing and maintaining a safe, healthy environment; childhood diseases, nutrition, curriculum and parent communication.
Prerequisite(s): CPE 061 or appropriate Compass score Lab Fee: $\$ 25$

ECE 215 Math /Science Activities (3)
Math and science curriculum activities, observations, providing laboratory activities to stimulate basic math and science skills.
Prerequisite(s): ECE 102, CPE 061 or appropriate Compass score
Lab Fee: $\$ 25$
ECE 220 Early Literacy - A: Literacy-Rich Environments, Play \& Language (3)
Discover research based literacy principles of phonemic awareness. Prepare literacy rich environments for children $0-8$ years. Design and implement literature based lessons that enhance literacy outcomes of young children.
Prerequisite(s): CPE 061 or appropriate Compass score, Instructor permission
Lab Fee: \$25
ECE 221 Early Literacy - B: Reading, Writing, \& Phonics (3)
Discover research-based literacy principles of reading, writing and phonics. Instructional strategies for children $0-8$ years. Design and implement literature-based lessons that enhance literacy outcomes of young children.
Prerequisite(s): CPE 061 or appropriate Compass score, Instructor permission
Lab Fee: $\$ 25$
ECE 222 Early Literacy - C: Literacy Curriculum \& Assessment (3)

Discover research-based literacy principles of integrated curriculum models and assessment. Strategies for children $0-8$ years. Design and implement literature-based lessons that enhance literacy outcomes of young children.
Prerequisite(s): CPE 061 or appropriate Compass score, Instructor permission
Lab Fee: \$25
ECE 223 Curriculum and Instruction in Early Childhood Education (3)
Planning and implementing curriculum with emphasis on philosophy, goals, objectives, themes, lesson planning, screening and evaluation, classroom management and teaching techniques.
Prerequisite(s): ECE 102, PSY 221 or Instructor permission
Lab Fee: $\$ 25$
ECE 224 School-Age Curriculum (3)
Planning and implementing school-age curriculum for elementary school children who may attend the child care center before-school and after-school and summer program.
Prerequisite(s): ECE 110, PSY 221
Lab Fee: \$25

ECE 225 Professional Legal Ethical Issues (2)
Issues, educational programs concerning the child, parent, teacher, administrator, including legal aspects, ethics and the future of early childhood education.
Prerequisite(s): CPE 061 or appropriate Compass score Lab Fee: $\$ 25$

ECE 230 Organizational Management (3)
Guidelines for financing and budgeting, board members, community assessment needs, facility equipment, staffing, scheduling, health and safety, management techniques, Ohio licensing regulations, enrollment management and other skills necessary to manage a quality early childhood education program.
Prerequisite(s): ECE 102
Corequisite(s): ECE 225
Lab Fee: $\$ 25$

ECE 250 Positive Guidance in Early Childhood (3)
An approach to discipline that is positive, preventive and developmentally appropriate for the early childhood age group.
Prerequisite(s): ECE 102
Lab Fee: \$25

ECE 271 ECE Practicum I (2)
Supervised experiences and observation in an approved child care center/Early Childhood Education program, assisting with appropriate activities with individual children and in small groups, becoming aware of routines and implementing theory in the classroom.
Prerequisite(s): ECE 213, ECE 223
Corequisite(s): ECE 291
Lab Fee: \$25
Student Liability Insurance: \$20
ECE 272 ECE Practicum II (2)
Supervised experiences in approved child care centers/Early Childhood Education program; knowledge, skills, attitudes, values of child development, education of the young child; assessing learning needs; taking the role of lead teacher while under the guidance of the cooperating teacher and the ECE faculty member; developing and evaluating age appropriate and developmentally appropriate curriculum; creating an environment that promotes discovery and self-esteem of the child; classroom management and communication skills.
Prerequisite(s): ECE 271
Corequisite(s): ECE 292
Lab Fee: \$25
ECE 275 Leadership and Mentoring in Early Childhood
Programs (2)
Leadership and mentoring of pre- and in-service teachers using principles of adult development, developmentally appropriate practice and effective communication. Prerequisite(s): ECE 102, CPE 061 or appropriate Compass score
Lab Fee: \$25



ECE 283 Child Care Practicum- Administration (2)
Job shadowing a child care administrator in a licensed child care center/Early Childhood Education program. Observing and implementing administrative duties including: bookkeeping procedures, interviewing parents, supplies and inventory, curriculum, staffing patterns and other duties performed by the administrator while supervising the day-to-day operations of a child care center.
Prerequisite(s): ECE 271, instructor permission required Corequisite(s): ECE 225, ECE 230, ECE 293
Lab Fee: $\$ 25$
Student Liability Insurance: \$20
ECE 291 Child Care Seminar I (2)
Analysis of experiences gained in an approved child care center/Early Childhood Education program, reviewing theory, teaching skills, team teaching, classroom management, lesson planning and evaluation.
Prerequisite(s): PSY 221, instructor permission required Corequisite(s): ECE 271
Lab Fee: \$25

## ECE 292 Child Care Seminar II (2)

Analysis of experiences gained while taking the lead teacher's role in a licensed child care center/early childhood education program, the typical/atypical child, teaching techniques, behavior management, lesson planning, implementation followed by evaluation, parent communication and staff relationships in the workplace.
Prerequisite(s): ECE 271, ECE 291, instructor permission required
Corequisite(s): ECE 272
Lab Fee: \$25
ECE 293 Child Care Seminar- Administration (2)
O Review experiences gained while job shadowing a child care administrator in a licensed child care center/Early Childhood Education program, review and complete exercises assigned from textbook.
Prerequisite(s): ECE 275, ECE 291, instructor permission required
Corequisite(s): ECE 225, ECE 230, ECE 283
Lab Fee: \$25

## (ECO) Economics

ECO 110 General Economics (3)
Social/political analysis of contemporary economic issues, including population, inflation, unemployment, energy and other policy issues. (Serves as General Education elective for students whose program does not require ECO 221 and ECO 222.)
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
ECO 221 Principles of Macroeconomics (3)
Fundamentals of economics from a macro perspective including gross domestic product (GDP), monetary and fiscal policies, trends and cycles.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112 or ENG 135

ECO 222 Principles of Microeconomics (3)
Fundamentals of economics from a micro perspective including principles of consumer behavior, supply and demand, price and wage determination, competition and resource allocations within individual markets.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112 or ENG 135

## (EDU) Education

EDU 110 Introduction to Education (5)
Overview of the foundations of education in the United States. Interdisciplinary attempt (historical, political, economic, legal, social, philosophical and curricular foundations) to provide preservice teachers with global understanding of the teaching profession. Issues and controversies confronting American education today.
Prerequisite(s): CPE 061 or appropriate COMPASS score

## EDU 216 Technology for Educators (4)

Identify, locate, evaluate, design, prepare and use educational technology. Develop classroom communication abilities through lectures, discussions, modeling, laboratory experiences and completion of a comprehensive project.
Prerequisite(s): ITS 103

## EDU 217 Individuals with Exceptionalities (4)

Survey course covering identification, developmental characteristics and intervention strategies for exceptional children and youth across education and community settings.
Prerequisite(s): ECE 102 or EDU 110 or Instructor permission

## (EEP) Education

EEP 122 Diversity in Education (3)
Components of individual and group motivation and behavior. Differences in approaches to learning. Learning environments that encourage positive social interaction, active engagement and self-motivation. Instructional methods that are equitable and adaptable to diverse learners.
Prerequisite(s): ECE 102, ECE 101, CPE 061 or appropriate Compass score
Lab Fee: \$25
EEP 200 Educational Teaming: Working with Parents (3)
Effects of culture, disability, socioeconomic status on collaboration and interaction with families. Effect of family environment on the learner. Strategies to promote effective collaboration with emphasis on listening, communication, confidentiality, problem solving, stress management, ethics and role as a team member. Field observation/participation required.
Prerequisite(s): CPE 061 or appropriate Compass score, ECE 102, ECE 101 or instructor permission Lab Fee: $\$ 25$

EEP 228 Tutoring and Small Group Instruction (3)
Learning approaches, teaching methods and materials used in tutoring and small group instruction. Creation of tutoring plans and small reading group plans using educational standards.
Prerequisite(s): EEP 122, ECE 223, ECE 250
Lab Fee: $\$ 25$

## (EMS) Emergency Medical Service

EMS 100 EMT-Basic Theory and Practice (8)
Meets current standards of National Curriculum of EMTBasic. Includes recognizing nature and seriousness of patient's condition/extent of injuries, administering appropriate emergency medical care, developing self confidence, communication skills and accurate record keeping. Successful students will be eligible to sit for Ohio's EMT-B (Basic) certification testing.
Prerequisite(s): Current Basic Life Support for Health Care Providers Certification or may take concurrently with instructor permission
Corequisite(s): Criminal background check
Lab Fee: \$25
Student Liability Insurance: \$62
EMS 107 EMT Intermediate Theory/Practice I (4)
First of two courses to meet current standards of State of Ohio Intermediate curriculum. Recognizing nature and seriousness of patient's condition and/or extent of injuries. Emphasis on basic anatomy and physiology, basic principles of pharmacology, venous access/medication administration, airway management and ventilation, patient assessment, clinical decision making, communication and documentation. Laboratory.
Prerequisite(s): Ohio EMT Basic certification, appropriate scores on Health Occupations Basic Entrance Test, and instructor permission
Lab Fee: $\$ 45$
EMS 108 EMT Intermediate Theory/Practice II (3)
Second of two courses to meet current standards of State of Ohio Intermediate curriculum. Recognizing nature and seriousness of patient's condition and/or extent of injuries. Emphasis on trauma, medical emergencies, special considerations and assessment based management. Laboratory.
Prerequisite(s): EMS 107
Corequisite(s): EMS 113
Lab Fee: \$20
EMS 110 Health and Health Emergencies (3)
Consideration of selected health conditions and issues; recognition of health emergencies; demonstration of assistive measures.
Prerequisite(s): None
Lab Fee: \$20
EMS 112 Paramedic Hospital Practice I (1)
Beginning of the clinical practice in the hospital setting observing and practicing skills evaluated in the college laboratory. Includes emergency department, IV therapy team, respiratory therapy, beginning cardiology and intubation in the operating room.
Prerequisite(s): BIO 102, BIO 105, Ohio EMT Basic Certification, appropriate scores on Health Occupations Basic Entrance Test, instructor permission Corequisite(s): EMS 131, EMS 132, EMS 118 Student Liability Insurance: \$62

EMS 113 EMT Intermediate Hospital Field Practice (1)
Incorporates clinical practice in the pre-hospital and hospital ALS settings. Observing and practicing EMT Intermediate skills. Includes emergency department, IV therapy team, respiratory therapy, pediatrics and intubation in the operating room.
Prerequisite(s): EMS 107
Corequisite(s): EMS 108
Student Liability Insurance: \$62
EMS 114 Paramedic Hospital Practice II (2)
Intermediate phase of the clinical practice in the hospital setting observing and practicing skills evaluated in the college laboratory. Includes emergency department, IV therapy team, respiratory therapy, pediatrics and intubation in the operating room. Integrates cardiac skills, advanced cardiac life support and management of medical and behavioral emergencies.
Prerequisite(s): EMS 131, EMS 132, EMS 112, EMS 118 or current EMT Intermediate certification, BIO 102 and BIO 105, instructor permission
Corequisite(s): EMS 133, EMS 134, EMS 120

## EMS 116 Paramedic Hospital Practice III (2)

Advanced phase of the clinical practice in the hospital setting observing and practicing skills evaluated in the college laboratory. Includes emergency department, IV therapy team, respiratory therapy, pediatrics and intubation in the operating room. Integrates cardiac skills, advanced cardiac life support, prehospital trauma skills, assessment and management of medical emergencies and behavioral emergencies. Rotating through more specialized facilities completing hospital clinical requirements.
Prerequisite(s): EMS 133, EMS 134, EMS 114, EMS 120 Corequisite(s): EMS 135, EMS 136, EMS 122

## EMS 118 Paramedic Field Practice 1 (1)

Beginning level of pre-hospital experience with a paramedic team, observing daily responsibilities of the paramedic, opportunity to go on EMS calls, progressing from observation to participant role with the advanced life-support team.
Prerequisite(s): Certification as Ohio EMT Basic, BIO 102, BIO 105, appropriate scores on Health Occupations Basic Entrance Test, instructor permission
Corequisite(s): EMS 131, EMS 132, EMS 112
EMS 120 Paramedic Field Practice II (1)
Continuation of pre-hospital experience with a paramedic team, observing the daily responsibilities of the paramedic, opportunity to go on EMS calls, progressing from an observation role to a participant role with the Advanced Life Support team.
Prerequisite(s): EMS 131, EMS 132, EMS 112, EMS 118 or current EMT-Intermediate certification, BIO 102, and BIO 105, instructor permission
Corequisite(s): EMS 133, EMS 134, EMS 114

EMS 122 Paramedic Field Practice III (1)
Continuation of prehospital experience with a paramedic team, observing the daily responsibilities of the paramedic, giving the student the opportunity to go on EMS calls progressing from an observation role to a participant/leadership role with the Advanced Life Support team.
Prerequisite(s): EMS 133, EMS 134, EMS 114, EMS 120 Corequisite(s): EMS 135, EMS 136, EMS 116

EMS 131 Paramedic Theory I (6)
Introduction to emergency medical services advanced life support following EMT Paramedic National Standard Curriculum. Prehospital environment, overview of roles and responsibilities, EMS systems, medical ethical/legal aspects, therapeutic and professional communications, stress management in emergency services, advanced patient assessment, advanced airway management, IV therapy, introduction to respiratory and cardiac emergencies, emergency pharmacology and medication administration.
Prerequisite(s): Ohio EMT Basic Certification, BIO 102, BIO 105, appropriate scores on Health Occupations Basic Entrance Test, instructor permission.
Corequisite(s): EMS 112, EMS 118, EMS 132
EMS 132 Paramedic Practical Skills Lab I (1)
Practical skills lab to support course outcomes and learning objectives of EMS 131.
Prerequisite(s): Ohio EMT Basic certification, BIO 102, BIO 105, appropriate scores on Health Occupations Basic
Entrance Test, instructor permission
Corequisite(s): EMS 131, EMS 112, EMS 118
Lab Fee: $\$ 75$
EMS 133 Paramedic Theory II (6)
Apply concepts from Paramedic Theory/Practice I. National Standard Curriculum treatment plans for cardiovascular, neurologic, endocrine, gastroenterologic, renal, urologic, gynecologic, obstetric and specific neonatal, pediatric and geriatric disorders, allergies and anaphylaxis, toxic exposure, infectious and communicable diseases, environmentally induced emergencies, behavioral emergencies.
Prerequisite(s): EMS 131, EMS 132, EMS 112, EMS 118 or current EMT Intermediate certification, BIO 102, and BIO 105, instructor permission
Corequisite(s): EMS 114, EMS 120, EMS 134
EMS 134 Paramedic Practical Skills Lab II (1)
Practical skills lab to support course outcomes and learning objectives of EMS 133 and previously learned skills.
Prerequisite(s): EMS 131, EMS 132, EMS 112, EMS 118, or current EMT Intermediate certification, BIO 102 and BIO 105, instructor permission
Corequisite(s): EMS 133, EMS 114, EMS 120
Lab Fee: \$75

EMS 135 Paramedic Theory III (6)
Concepts from Paramedic Theory/Practice I and II. National Standard Curriculum treatment plan for trauma, acute deterioration of chronic illness, patients with special challenges and victims of abuse or assault. Management of emergency scene. Emphasizes critical thinking and decision making. Prerequisite(s): EMS 133, EMS 134, EMS 114, EMS 120 Corequisite(s): EMS 136, EMS 116, EMS 122

EMS 136 Paramedic Practical Skills Lab III (1)
Practical skills lab to support course outcomes and learning objectives of EMS 135 and previously learned skills.
Prerequisite(s): EMS 133, EMS 134, EMS 114, EMS 120
Corequisite(s): EMS 135, EMS 116, EMS 122
Lab Fee: \$75
EMS 171 Basic Life Support: CPR (1)
Introduction to respiratory and circulatory emergency in infants, children and adults. Instruction and treatment methods in community and professional cardiopulmonary resuscitation in accordance with the American Heart Association guidelines.
Prerequisite(s): None
Lab Fee: $\$ 15$

## EMS 220 EMS Pharmacology (3)

General classification of drugs, indication, therapeutic effects, routes of administration, dosages, side effects and contraindications with an emphasis on medications used by and for ill or injured patients.
Prerequisite(s): Current EMT-P certification or Instructor permission

EMS 225 Advanced Patient Assessment (4)
Theoretical basis and methods of patient assessment for the health care professional stressing advanced techniques with an emphasis on practical application in a laboratory setting.
Prerequisite(s): EMT-P Certification or Instructor Permission

EMS 240 Hazardous Material/Disaster Management (3)
Applies EMS theories and practices in planning for disaster responses. Implementation of public education as it relates to the preplanning, reacting and follow up to man made and natural disasters. Incorporates a working knowledge of incident command, major incident response and disaster planning.
Prerequisite(s): EMS Certification and Hazardous Material Operation Certificate

EMS 250 EMS Legal Insights (2)
Legal aspects of basic and advanced prehospital care including criminal and civil law with an emphasis to expand knowledge base. Case studies are presented.
Prerequisite(s): Basic, Intermediate, or Paramedic Certification

National Standard Paramedic Curriculum six divisions including prehospital environment, preparatory, trauma, burns, medical emergencies, OBG/GYN neonatal and behavioral emergencies for the registered nurse experience in the care of critically ill or injured patients. An emphasis is placed on practical knowledge in the college laboratory, hospital clinical setting and field internship. This course will substitute for EMS $131,132,133,134,135$, and 136. RNs are given credit for past experience for their nursing education and experience toward the U.S. Department of Transportation National Standard Paramedic Training curriculum.
Prerequisite(s): RN, ACLS, PHTLS, BTLS, PALS, min 2 yrs critical care, TNCC, Ohio EMT-Basic Certification
Corequisite(s): None
Lab Fee: \$65
Student Liability Insurance: \$62

## (ENG) English

ENG 111 English 1 (4)
The process of writing personal and argumentative essays; language issues; and library skills. Writing intensive.
Prerequisite(s): CPE 071 with grade of C or better or appropriate Compass score
Corequisite(s): CPE 062 or appropriate Compass score
ENG 112 English II (4)
Critical thinking, persuasive writing, research skills, and literary analysis. Writing intensive.
Prerequisite(s): ENG 111 with a grade of $C$ or better

## ENG 130 Introduction to Literature (3)

Critical readings, discussion, and analysis of poetry, short story and drama.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111

## ENG 135 Business Report Writing (4)

Business report writing including periodic, situational, informational, compliance and feasibility reports. Particular emphasis on critical thinking and writing a proposal, a work plan, a progress report and a long analytical research report. Oral presentation of research report. Will not necessarily transfer as the equivalent of ENG 112.
Prerequisite(s): ENG 111

## ENG 221 Business Communications (3)

Developing skill and sensitivity in preparing business documents, especially letters and memorandums, along with techniques for preparing effective resumes and application letters. Emphasis on the importance of factual accuracy, completeness, appropriate tone, clarity, proper grammar and writing style.
Prerequisite(s): ENG 111 or OAD105

ENG 223 Technical Report Writing (3)
Technical communications encountered on the job, including letters of application/resumes, technical definitions, descriptions of mechanisms, instructions, proposals, progress reports, memos, oral presentations, complaint letters, claim letters, inquiry letters, E-mail, newsletters, web pages, Internet, as well as research on behavior, attitudes, values and social system of another culture in terms of how these variables influence on-job communication preferences and expectations.
Prerequisite(s): ENG 111 and ITS 12W or ITS 103 or basic word processing and keyboarding skills.
Corequisite(s): ENG 112

## ENG 225 Creative Writing (3)

A practical introduction to the three major literary genres: fiction, poetry and drama. Discussion topics include the basic elements of the three forms. Writing projects include a collection of poems, short \& long fiction and a one-act script, screen play or play.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
ENG 230 Great Books: World Literature (3)
Chronological selection of the major works and periods of world literature beginning with the ancients and progressing through modern times. Writing intensive.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
ENG 231 Great Books of World Literature: Honors (3)
Honors-level approach to the study of a chronological selection of the major works and periods of world literature beginning with the ancients and progressing through modern times. Writing intensive. Emphasis on critical analysis of literature. Students may not take both ENG 230 and ENG 231 for credit toward graduation.
Prerequisite(s): ENG 112
ENG 241 Poetry (3)
Both traditional and contemporary forms of world poetry, including rhyme and meter; blank verse; free verse; experimental forms; figurative language and allusion; explication and interpretation. Writing intensive.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
ENG 243 Fiction (3)
Critical reading, discussion, and analysis of short stories and novels.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
ENG 245 Drama (3)
Study and analysis of plays from different historical periods.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

ENG 250 American Literature (3)
Themes, ideas and periods in American literature from its beginning through modern times.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
ENG 261 British Literature to 1700 (3)
Survey of the major works and periods of British literature from 700 to 1700 .
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
ENG 262 British Literature 1700-Present (3)
Survey of the major works, themes, ideas, and periods of
British literature from 1700 to the present time.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

## (ENT) Engineering Technology

ENT 100 World Class Manufacturing (3)
World Class Manufacturing concepts and historical perspectives; simultaneous and concurrent engineering and Japanese innovations in manufacturing.
Prerequisite(s): INT 105 or DFT 101

## ENT 101 Engineering Methods (3)

Engineering Technology as a profession. Dimensions, units, significant figures, simple trigonometry, simple logarithms and vectors. Use of scientific calculators.
Prerequisite(s): CPE 061
Corequisite(s): CPE102 or higher math placement
ENT 109 Manufacturing Laboratory (2)
Set-up and operation of lathes, mills, drills, band saws, and grinders. Competency-based course requiring completion of several machining projects of increasing complexity. Safety, care and use of equipment. Use of machinists' references and inspection instruments.
Prerequisite(s): DFT 101, or INT 105, or 2 years of high school drafting
Corequisite(s): ENT 110
Lab Fee: \$40
ENT 110 Manufacturing Processes (3)
Detailed overview of manufacturing processes including machine tool operations, metal forming, welding processes and casting.
Prerequisite(s): DFT 101, or INT 105 or 2 years of high school drafting
Corequisite(s): ENT 109
ENT 111 Engineering Materials (3)
Structural and mechanical properties of ferrous (iron) and non-ferrous (aluminum, copper, nickel, etc.) materials and alloys. Non-metallic materials such as glass, ceramics, concrete, wood and electromagnetic and semi-conductor materials.
Prerequisite(s): CPE 061
Corequisite(s): CPE 102 or higher math placement
Lab Fee: $\$ 10$

ENT 112 Metal Fabrication (4)
Metal Fabrication with emphasis on angle, bar, plate \& sheet stock. Pattern development and fabrication of projects using slip rolls, sheet metal brake, iron worker and angle rolls.
Prerequisite(s): DFT 101 or INT 105, or 2 years of high school drafting
Lab Fee: \$50

## ENT 121 Computer Basics for Applied Technology (3)

Computer uses in technology. Computer applications of Window programs. The use of word processing, spreadsheet and database software to prepare technical reports and manage information. Use the Internet and E-mail to obtain and share technical information.
Prerequisite(s): CPE 091, CPE 061
Lab Fee: $\$ 15$

ENT 125 Computerized Maintenance Management Systems (2) Overview and introduction to computerized maintenance management systems (CMMS).
Prerequisite(s): ENT 121
ENT 205 Circuits and Machines (4)
Selfpaced capstone class combining INT 150 and INT 155 courses. Direct and alternating current circuits, generators and motors; batteries; magnetism; electromagnetic induction; single and three-phase electric circuits; transformers and regulators utilizing laboratory experiments and demonstrations.
Prerequisite(s): CPE 061 or instructor permission Lab Fee: $\$ 15$

ENT 207 HVAC - Refrigeration (3)
Basic refrigeration system operation. Air conditioning and heat-pump applications covering compressor, condenser, evaporator, metering devices and refrigerant troubleshooting systems.
Prerequisite(s): ENT 205
Lab Fee: $\$ 15$

ENT 210 Engineering Statistics (3)
Statistics with emphasis on engineering and technical applications, variability, the normal curve, hypothesis testing and internal estimates for the mean, components of variance, ANOVA and regression analysis and estimate point and confidence interval for parametric values.
Prerequisite(s): ENT 101, MTH 121
Lab Fee: $\$ 10$

## ENT 211 Statics (3)

The force analysis of rigid bodies at rest: vectors, forces, moments, centroids, equilibrium conditions, analysis of trusses and frames, friction, moments of inertia and applications.
Prerequisite(s): ENT 101, MTH 121, MTH 140, PHY 111

## ENT 212 Finite Element Modeling (4)

Modeling software applications of finite element thermal problems. Emphasis on analysis of forces acting on elastic bodies at rest, trusses and frames.
Prerequisite(s): DFT 214, ENT 111, ENT 121 and ENT 211
Lab Fee: $\$ 20$

ENT 213 Strength of Materials (4)
Equilibrium, stress and strain, review of centroids and moments of inertia, torsion, stresses and deflections in beams, combined loading, compression members and Mohr's Circle Method.
Prerequisite(s): ENT 211
ENT 221 Computer Numerical Control (4)
The theory and practice of NC and CNC machining with actual programming applications. Converting engineering drawings into programs using computer simulation to test programs and produce programmed parts.
Prerequisite(s): DFT 104, ENT 101
Corequisite(s): MAT 110 and MAT 111 or ENT 109 and ENT 110
Lab Fee: \$15

## ENT 222 Computer-Aided Manufacturing (4)

Students learn industry-relevant skills in self-paced directed hands-on training format using industrial grade CIM software in real-time Ethernet, RS485 PC network, or Profibus mode, palletized conveyor system, robotic load/unload, CNC Milling operations and numerous electro-pneumatic, mechanical, sensory and bar-code reading devices. Safety is covered using lockout/tagout, safety switches and machinery guarding.
Prerequisite(s): ENT 221 or permission
Corequisite(s): INT 251
Lab Fee: \$20

## (FRN) French

FRN 111 French 1 (4)
Study of the French culture, vocabulary and structure of the French language; practice in conversation, reading and writing.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111

## FRN 112 French II (4)

Study of the French culture, vocabulary and structure of the French language; practice in conversation, reading and writing.
Prerequisite(s): FRN 111
FRN 113 French III (4)
Study of the French culture, vocabulary and structure of the French language; practice in conversation, reading and writing.
Prerequisite(s): FRN 112

## (GEO) Geography

GEO 110 World Human Geography (3)
Major cultural elements in human interaction with the environment, including a spatial analysis of population, landscape, language, religion, health care, ethnicity, rural and urban settlements, economic resources and development, food supply and environmental problems.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111

GEO 220 World Regional Geography (3)
Cultural, social, economic and political developments from the geographic perspective of specific world regions, such as Africa, Asia, Latin America and the Middle East.
Prerequisite(s): CPE 061 and CPE 071 or appropriate
Compass score
Corequisite(s): ENG 111

## (GER) German

GER 111 German 1 (4)
Study of the vocabulary and structure of the German language; practice in conversation, reading, writing. German culture.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111

## (GLG) Geology

GLG 114 Ohio Field Geology (4)
An introductory field geology course specializing in Ohio geology. Physical and historical geological formations, general exposure to the karst and glacial features, field mapping experience and the general importance of both environmental and economic geology.
Prerequisite(s): GLG 111 or GLG 113 or with special permission from the instructor
Lab Fee: $\$ 25$

## GLG 129 Survey of Earth Science (4)

An introduction to the earth sciences. Concepts developed in Astronomy, Geology, Oceanography and Meteorology. Laboratory experience in rock and mineral identification, weather map reading and interpretation and problems in oceanography and astronomy. Does not contain lab and may not transfer.
Prerequisite(s): CPE 061 or appropriate Compass score
GLG 130 Earth and Space Science (5)
An introduction to the earth sciences. Concepts developed in Astronomy, Geology, Oceanography and Meteorology. Laboratory experience in rock and mineral identification, weather map reading and interpretation and problems in oceanography and astronomy. This course contains a lab and is for transfer.
Prerequisite(s): CPE 061 or appropriate Compass score.
Lab Fee: \$40
GLG 131 Physical Geology (5)
Study of the materials of which the world is composed. Examination of ongoing surface processes such as the movement of water and ices, formation of the land shape about us and the chemical and mechanical breakdown of earth materials. Processes leading to mountain building, alteration of deep and near surface rocks and earthquakes.
Prerequisite(s): CPE 061 or appropriate Compass score. Lab Fee: \$40

GLG 132 Historical Geology (5)
Study of earth in space; physical evolution of oceans, atmosphere and continents; origins of life and evolution; physical and biological development of North American continent.
Prerequisite(s): CPE 061 or appropriate Compass score. Lab Fee: \$40

GLG 133 Environmental Geology (5)
The interaction of geological processes with the purposes posed by humans. Includes use and misuse of resources, hazardous environments, engineering difficulties, waste and effects on health.
Prerequisite(s): CPE 061 or appropriate Compass score. Lab Fee: \$40

GLG 201 Geology and Biology of the Bahamas (5)
Course is taught at the Bahamian Field Station on San Salvador, the outer most island in the Bahamas; with Karst topography, Foraminfera identification, Calcareous algae, stromatolites, fossil identification and current day ocean shore environments. Students will experience Bahamian cultural events, both past and present.
Prerequisite(s): BIO 111, GLG 110 or GLG 111 or with special permission from instructor.

GLG 295 Special Topics in Geology: Field Experience (1)
This course is required to be taken concurrently with GLG 110, Earth Science and GLG 111, Geology I for transfer students only. Course will consist of an eight (8) hour Saturday field experience along with an assigned project.
© Prerequisite(s): CPE 061
Corequisite(s): GLG 110 and GLG 111

## (GPH) Graphics

GPH 100 Introduction to Graphic Design (4)
Introduction to the Macintosh (Mac) as a layout tool. Introduction to QuarkXpress, Adobe Illustrator, Adobe Photoshop. Survey of graphic design as a profession.
Prerequisite(s): CPE 061
Lab Fee: \$20
GPH 105 Design Fundamentals (3)
Study of five design principles: line, shape, value, texture, and color and space and distance. Two-dimensional designs using media and tools/materials of the graphic designer. Study of elements and principles of design to create color action and color relatedness.
Prerequisite(s): CPE 061
Lab Fee: \$20
GPH 110 Digital Illustration (3)
Use of Adobe Illustrator for technical illustration. Special emphasis placed on its use to generate professional quality technical drawings and information graphics. Prerequisite(s): GPH 100, GPH 105, ART 111
Lab Fee: \$20

GPH 112 Digital Typography I (3)
The study of type characteristics. Practical application of basic typographic principles within the design process. Use of QuarkXPress.
Prerequisite(s): GPH 100, GPH 105, ART 111
Lab Fee: \$20
GPH 114 Digital Typography II (3)
Continued study of type characteristics. Emphasis on the practical application of basic and intermediate typographic principles within the design process.
Prerequisite(s): GPH 110, GPH 112, ART 112
Lab Fee: $\$ 20$
GPH 120 Logo, Symbol, Corporate ID (3)
The application and study of type, logo/trademark and symbols for the creation of identification systems. Software: Adobe Illustrator
Prerequisite(s): GPH 114, GPH 201, ART 113
Lab Fee: $\$ 20$
GPH 201 Electronic Imagery I (3)
Basics of image editing from scanning and retouching images to working with selections, layers, type and composite imagery. Adobe Photoshop utilized.
Prerequisite(s): GPH 110, GPH 112, ART 112
Lab Fee: $\$ 20$
GPH 202 Electronic Imagery II (3)
Intermediate image editing from scanning and image retouching to working with selections, layers, type and composite imagery. Adobe Photoshop used.
Prerequisite(s): GPH 114, GPH 201, ART 113
Lab Fee: \$20
GPH 203 Electronic Imagery III (3)
Advanced image editing from scanning and image retouching to working with selections, layers, type, and composite imagery. Adobe Photoshop utilized.
Prerequisite(s): GPH 202
Lab Fee: $\$ 20$

## GPH 205 Advertising Layout (3)

Traditional and progressive advertising procedures used in a wide variety of media. Single ad designs using a variety of techniques. Creative techniques and strategies for effective advertising campaigns. Principles of design, typography and color. Problem-solving techniques. Attention to detail and meeting deadlines emphasized.
Prerequisite(s): GPH 203, GPH 212
Lab Fee: $\$ 20$
GPH 211 Computer Layout I (3)
Introduction to layout and design using a variety of basic layout formats in black and white and/or color. Creative problem solving through use of thumbnails and computer refined comprehensives. Software: Quark XPress and Adobe Photoshop.
Prerequisite(s): GPH 114, GPH 201
Lab Fee: \$20

GPH 212 Computer Layout II (3)
The second of two courses designed to introduce layout and design using a variety of basic layout formats in black and white and/or color. Creative problem solving through the use of thumbnails and computer refined comprehensives. Software: QuarkXPress, Adobe Photoshop.
Prerequisite(s): GPH 211
Lab Fee: \$20

## GPH 220 Illustration Techniques (3)

Course in developing illustrations. Exploration of initial illustrative concepts using thumbnails. Refining ideas generated from roughs. Special emphasis placed on using Adobe Illustrator to produce professional quality drawings and information graphics.
Prerequisite(s): ART 113
Lab Fee: \$20

GPH 230 Introduction to Web Design (3)
Study of web page design. Basic HTML coding and use of Macromedia Dreamweaver with emphasis on aesthetics of web page design.
Prerequisite(s): ITS 103 OR GPH 100
Lab Fee: \$20
GPH 231 Intermediate Web Design (3)
Study of web page design. Intermediate use of Macromedia Dreamweaver with emphasis on aesthetics of web page design.
Prerequisite(s): GPH 230
Lab Fee: \$20
GPH 251 Professional Development I (3)
Life, career and educational goals; resume and cover letter; research organization; interviewing skills, discussion of professional image; follow-up letter. Development of an individual portfolio from course work within the Graphic Design curriculum. Methods of self-promotion for the purpose of seeking employment and free-lance work included. Software: QuarkXPress, Adobe Photoshop, Adobe Illustrator.
Prerequisite(s): GPH 211, CPE 091
Corequisite(s): GPH 212
Lab Fee: \$20

## GPH 252 Professional Development II (3)

Further refinement of individual portfolios from course work within the Graphic Design curriculum. Students are required to present portfolios to a panel of professional designers. Methods of self-promotion for the purpose of seeking employment (free-lance work, self promotional piece, digital portfolio, art show).
Software: QuarkXPress, Adobe Photoshop, Adobe Illustrator.
Prerequisite(s): GPH 251, CPE 101
Corequisite(s): GPH 205
Lab Fee: \$20

GPH 285 Graphic Design Internship (3)
Relating academic studies to the world of work, familiarity with a particular career, application of the principles and theories learned in classroom experiences, establishing learning outcomes and preparing related reports.
Prerequisite(s): GPH 251
Lab Fee: \$20

## (HON) Honors

HON 291 Science and Religion (3)
To explore the relation and interaction between science and theistic religion as disciplines and ways of knowing. Specific topics will include some of the following: ways of relating theistic and non theistic religions and science; the functions of language in religion and science; naturalism and supernaturalism; falsificationism; miracles, cosmology and creation; and creation and evolution.
Prerequisite(s): A minimum GPA of 3.25 and ENG 112

## HON 292 Literature, Gender \& Humanism (3)

Critical reading, analysis and discussion of short stories, poems, drama and novels. Focus on a variety of relationships presented in the literature. Understand what a work of literature means and the art of conveying its meaning to the reader.
Prerequisite(s): A minimum GPA of 3.25 and ENG 112

## HON 294 Science, Humanity and Technology (3)

This course develops the student's understanding of the nature of science and technology and its knowledge through the study of selected concepts, processes and skills in science and technology. The impact of scientific/technologic knowledge in society and the relationship between the nature of this knowledge and other ways of knowing is also examined. Prerequisite(s): A minimum GPA of 3.25 and ENG 112

## (HRM) Human Resource Management

HRM 225 Human Resource Management (3)
Examination of the human resource functions in the business organization. Job analysis, recruitment, hiring, training, performance appraisal and compensation. Psychological forces motivating workers, discipline and morale.
Prerequisite(s): MGT 106, MGT 112

## HRM 230 Training and Development (3)

Comprehensive study of training and organization development. Includes needs assessment, learning theories, training methods and evaluation. Application through training program creation and presentation.
Prerequisite(s): HRM 225 or instructor permission

## HRM 235 Employment Law (3)

Thorough examination of laws regulating employment relationship, discrimination and employment environment. Includes affirmative action, race, gender, disability, national origin and age discrimination; labor law, Fair Labor Standards Act; and occupational health and safety.
Prerequisite(s): HRM 225 or instructor permission
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HRM 240 Staffing (4)
Study of staffing models, recruitment strategies, legal compliance, equal opportunity laws, assessment methods, selection process and staffing management. Concepts applied in mock interviews.
Prerequisite(s): HRM 225 or instructor permission

## HRM 245 Compensation and Benefits (3)

Broad study of organizational compensation systems including legal issues, bases for pay, pay structures, executive compensation, required and discretionary benefits. Student work teams create compensation plans.
Prerequisite(s): HRM 225 or instructor permission
HRM 270 Human Resource Management Trends (2)
In-depth review of current cases and trends in human resource management. Integrates concepts through discussion and presentation, as well as participation in a professional organization.
Prerequisite(s): HRM 225 or instructor permission

## (HST) History

HST 111 Western Civilization To the 14th Century (3)
History of western society from earliest times to the 14th century. Social, political, economic and cultural aspects of the ancient and medieval eras.
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): CPE 071

HST 112 Western Civilization from the 14th through 18th
Centuries (3)
History of western society from the end of medieval times to the end of the French Revolutionary period. Renaissance, Reformation, the Enlightenment, the French Revolution and the Napoleonic era.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
HST 113 Western Civilization from 19th Century to the Present (3)

History of western society from 1815 to the present. Social, political, economic and cultural aspects of the 19th-21st century. Nationalism, Revolution, the New Industrialism, Socialism, Colonialism, Imperialism and 20th-century developments.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
HST 114 Western Civilization To the 14th Century: Honors (3)
Honors level approach to the history of western society from earliest times to the 14th century. Social, political, economic and cultural aspects of the ancient and medieval eras. Writing intensive. Student may not receive credit toward graduation for both HST 114 and HST 111.
Prerequisite(s): ENG 112

HST 121 American History to 1810 (3)
American history from before colonization to the Jeffersonian period including political, social, cultural and economic history.
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): CPE 071

HST 122 American History 1810-1900 (3)
American history from the Jeffersonian period to the beginning of the 20th century including social, political and economic development in the United States.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
HST 123 American History 1900-Present (3)
American history of the United States in the 20th and 21st century. Political, social, cultural and economic history, concluding with a review of current events.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
HST 220 Topics in African-American History and Culture (3)
Examination of the people and events that have helped shape the story of blacks in America from 1619 to present. Organized around topics and themes, not necessarily taught in chronological order.
Prerequisite(s): ENG 111 and college level American History course recommended
Corequisite(s): ENG 112

## (HUM) Humanities

HUM 299 Capstone Seminar (3)
Interdisciplinary approach to the study of the human condition: using readings, writing, and critical thinking skills to address and evaluate readings from at least two diciplines including the natural sciences, sociology, psychology, literature, history, religion and philosophy; course content will vary.
Prerequisite(s): A minimum of 60 credit hours earned including ENG 112

## (INT) Industrial Technology

## INT 100 Mechanical Skills/Precision Measurement (3)

Use of tools and precision measuring equipment to maintain, install and align mechanical equipment (bearings, couplings, flexible drives, gearing and gear reducers). Lubrication techniques, hand tools, drill press, shop press, dial indicators and gage blocks.
Prerequisite(s): CPE 061 or instructor permission Lab Fee: $\$ 15$

## INT 101 Metrology I (2)

The application and use of basic and precision measurement tools including scales, calipers, micrometers, dial indicators, and others. The use of computer interfaces in metrology. An introduction to statistical process control including control charts, cause and effect diagrams and Pareto diagrams. Beginning concepts in geometric dimensioning and tolerancing.
Prerequisite(s): CPE 061 or instructor permission
Lab Fee: $\$ 15$

INT 105 Blueprint Reading \& Schematics (3)
Instruction in part visualization from drawings, location of key features, drawing dimensioning methods, geometric dimensioning and tolerancing symbols, electrical, pneumatic and hydraulic schematic symbols, and interpretation of drawing specifications.
Prerequisite(s): CPE 061 or instructor permission
Lab Fee: \$10

## INT 115 Industrial Calculations (3)

Application of mathematical concepts to the design, and maintenance of products and processes. Basic concepts in measurement and geometry. Presenting and analyzing data using charts, graphs, algebraic equations, vector diagrams, statistical calculations and trigonometric relationships.
Prerequisite(s): CPE 091 or placement test
Lab Fee: $\$ 5$

## INT 120 Hydraulics/Pneumatics I (4)

Components and principles utilized in basic industrial hydraulic and pneumatic circuits. Schematics for fluid systems, component operation, troubleshooting techniques and basic calculations for the design and troubleshooting of systems.
Prerequisite(s): CPE 061 or instructor permission
Lab Fee: \$15
INT 125 Hydraulics/Pneumatics II (4)
Application of hydraulic systems. Connection and operation of circuits utilizing cylinders, valves, hydraulic motors and other components. Control of advanced hydraulic circuits using electrical and pneumatic devices. Application of electronic sensors to fluid power systems. Principles of vacuum systems.
Prerequisite(s): INT 120
Lab Fee: \$15
INT 126 Piping Systems (3)
Identification, development, process selection, configuration, and assembly of fluid piping systems in agriculture, construction and transportation. Pipe preparation and bending techniques. Run calculations, materials selection, fittings and valves.
Prerequisite(s): CPE 061
Lab Fee: $\$ 25$

## INT 140 Industrial Safety (2)

An introduction to industrial regulatory safety terminology and requirements.
Prerequisite(s): CPE 061 or instructor permission Lab Fee: $\$ 5$

## INT 150 Electrical Systems (4)

Components and operation of common alternating and direct current circuits. Use of test equipment for electrical circuits. Calculations involved in troubleshooting circuits. Series and parallel circuits. Basic logic circuits, control circuits and the use of circuits to control mechanical processes, electrical wiring techniques and system installation.
Prerequisite(s): CPE 061 or instructor permission
Lab Fee: \$15

INT 155 Motors and Motor Controls (4)
The various types of direct and alternating current motors including their performance characteristics and application. Basic motor control concepts and selection of motors for specific applications. Speed, torque and power and their effects on motor performance.
Prerequisite(s): INT 150, CPE 091 or higher math placement
Lab Fee: $\$ 15$
INT 158 Electrical Distribution I (3)
Construction, troubleshooting, maintenance and repair of wiring for power distribution systems between the bus bar and the control panel. Includes wiring for a variety of industrial electrical distribution applications. Lockout/tagout procedures and safety-disconnect switches.
Prerequisite(s): CPE 061
Lab Fee: \$30

## INT 159 Electrical Distribution II (3)

Construction, troubleshooting, maintenance, and repair of the wiring in electrical control panel systems. Wiring for a variety of industrial applications. Lockout/tagout, emergency stop pushbuttons, and safety disconnect switches.
Prerequisite(s): CPE 061
Lab Fee: \$30

## INT 170 Mechanical Maintenance (4)

Operating principles, troubleshooting and maintenance of mechanical power transmission equipment. Lubrication, bearings, couplings, flexible drives, valves, centrifugal pumps, gearing, gear reducers, V-belts, brakes and clutch assemblies.
Prerequisite(s): CPE 061 or instructor permission Lab Fee: \$15

## INT 175 Foundations of Digital Control (4)

Introduction to semiconductors, analog and digital integrated circuits including operational amplifiers, power supplies, oscillators and multivibrators, logic gates, encoders, decoders, analog to digital and digital to analog converters.
Prerequisite(s): INT 150
INT 200 Robotics (3)
Programming a robot, industrial controller operation, and a wide variety of robotic applications. Assembly, material handling, machine tending, gluing and inspection. Programming robots to perform a range of serial and Ethernet
5 - and 6-axis operations.
Prerequisite(s): ENT 121
Lab Fee: \$30
INT 212 Electronic Systems (4)
Survey of electronic components and systems-operation. Signatures, basic testing using HUNTRON 2000 Scope. Troubleshooting at the component level.
Prerequisite(s): INT 175 or High School Electronics Lab Fee: \$15

INT 215 Statistical Process Control (3)
Philosophy, history, statistical basis of SPC and use of computers for QC. Quality improvement techniques for industry. Control chart development and utilization for both variables and attributes. Process capability and capability index. Introduction to acceptance sampling.
Prerequisite(s): INT 101
Lab Fee: $\$ 10$
INT 225 Industrial Electronics (3)
Fundamentals and specific applications of electronic components for control of industrial machines and processes. Input and output transducers. Feedback systems and servomechanisms. Closed loop control.
Prerequisite(s): INT 212
Lab Fee: $\$ 15$

## INT 226 Hydraulic Troubleshooting (3)

Location, identification, and correction of various inserted faults in an industrial quality electro-hydraulic system. Troubleshooting faults in many mechanical, hydraulic, and electrical components. Lockout/tagout procedures, emergency stop pushbutton, safety switches and actuator guards. Prerequisite(s): INT 125
Lab Fee: $\$ 20$
INT 227 Pneumatic Troubleshooting (3)
Location, identification, and correction of inserted faults in an industrial quality electro-pneumatic system, which includes fault isolation and troubleshooting to the component level. Lockout/ tagout, emergency stop pushbuttons, safety disconnect switches and actuator guards.
Prerequisite(s): INT 120
Corequisite(s): INT 125
Lab Fee: \$20
INT 228 Pump Systems (3)
Design, operation, installation, maintenance, troubleshooting, performance analysis, and proper application selection for centrifugal, magnetic, gear, piston, peristaltic, turbine and diaphragm-type pumps. Reading and analysis of test instrumentation including pump performance under various load conditions, inlet and outlet pressures, digital flow meter, motor speed, and torque readout.
Prerequisite(s): INT 170
Lab Fee: $\$ 20$

## INT 230 AC Electronic Motor Drives (3)

Operation and troubleshooting of AC servomotor drives. Complete instrumentation to monitor motor performance under various load conditions, speed and torque readouts.
Prerequisite(s): INT 155 or ENT 205
Lab Fee: $\$ 20$
INT 231 DC Electronic Motor Drives (3)
Operation and troubleshooting of DC servomotor drives used in industry. The Pulse Width Modulation (PWM) feature in addition to a full range of DC servomotor drives. Instrumentation to monitor motor performance under the various load conditions, speed and torque readouts.
Prerequisite(s): INT 155 or ENT 205
Lab Fee: \$20

INT 249 Programmable Logic Controllers (Siemens) (3)
Programming, connecting, and testing Siemen's PLC's for control of industrial/commercial processes. Programmable Logic Controllers (PLC's). Interfacing with sensors, using PLC's in a variety of process applications. Utilization of Amatrol 890-PEC-B trainer.
Prerequisite(s): INT 150 or ENT 205 or instructor permission
Lab Fee: $\$ 10$
INT 251 Programmable Logic Controllers (Allen-Bradley) (4) Programming, connecting and testing PLC's for control of industrial/commercial processes. Programmable Logic Controllers (PLC's). Interfacing with sensors, using PLC's in a variety of process applications. Introduction to the PLC controller of the CSCC CIM System. Utilization of Amatrol 890-PEC-B trainer in troubleshooting PLC's.
Prerequisite(s): INT 150 or ENT 205 or instructor permission
Lab Fee: $\$ 10$
INT 252 Automated Systems (4)
Fixed automation using transfer lines controlled by relay logic and flexible automation using PID Analog Controllers, robots, Computer Numerical Control (CNC) tools, conveyors, intro to Automatic Storage/Retrieval System and Automatic Guided Vehicles. Computer integration of mechanical components. Introduction \& operation of CSCC CIM System.
Prerequisite(s): INT 251, INT 150 or ENT 205
Lab Fee: $\$ 20$

## INT 255 Electrical Troubleshooting (4)

Maintenance and troubleshooting of motors, solenoids, electrical controls, electrical circuitry and sensors using common testing equipment. Problems at the component, machine, and inter-machine levels. Introduction \& operation of the CSCC CIM System.
Prerequisite(s): INT 155 or ENT 205
Lab Fee: $\$ 15$
INT 260 Electrical Distribution III (4)
Transformers, AC power distribution, power factor correction, voltage regulation and DC power supplies. Circuit protection using circuit breakers, fuses and ground fault interrupters.
Prerequisite(s): INT 155 or ENT 205
Lab Fee: $\$ 20$
INT 270 Industrial Machine Maintenance (4)
Utilizing all skills acquired in previous DLL courses to troubleshoot and maintain capstone class machines and system levels. Manufacturer's documentation and maintenance logs. Introduction to planned and predictive maintenance. Troubleshooting charts and efficient sequence for failure analysis. Operation of the CSCC CIM System.
Prerequisite(s): INT 155, INT 170, INT 255 or instructor permission
Lab Fee: \$20

INT 271 Vibration Analysis (3)
Analyze, troubleshoot and correct sources of detrimental vibration in machinery. Use of sophisticated sensors for detecting the source and severity of vibration and the safety concerns in a variety of machine application components. Prerequisite(s): INT 170 or instructor permission Lab Fee: \$15

## INT 272 Mechanical Systems (3)

Advanced concepts of mechanical transmission systems used in industrial, agricultural and mobile applications. Operation, installation, performance analysis and design of basic mechanical transmission systems using chains, v-belts, spur gears, bearings and couplings. Lockout/tagout, safety disconnect switch and rotating machine guards.
Prerequisite(s): INT 170 or instructor permission Lab Fee: \$20

INT 280 Industrial Technology Projects (4)
A capstone class in which students will apply the skills acquired in the DLL courses to design, fabricate, install, document and debug an assigned project of a scale and type normally done in-house by local plants engineering and maintenance personnel. Operation of the CSCC CIM System.
Prerequisite(s): INT 255, ENG 223
Lab Fee: \$20

## (ITS) Information Technology Systems

## ITS 080 Computer FUNdamentals (1)

Fundamental concepts of computers, operating systems and network usage. Preparatory course for students with little or no computer background. Graded on an S or U (satisfactory or unsatisfactory) basis.
Prerequisite(s): CPE 061
Corequisite(s): None

## ITS 102 Keyboarding/Word Processing (3)

Development of techniques for proper keyboarding skills. Creating and editing documents using packaged word processing software. Strongly recommended for students who have few or no keyboarding skills. Can be used as a substitute for ITS 12 W .
Prerequisite(s): CPE 061

## ITS 103 Information Technology Basics (3)

Brief overview of Windows or current GUI, basic but essential word processing concepts, electronic mail, WWW research techniques, OhioLINK. (Windows XP, Word 2002) Students with little or no keyboarding experience should expect to take longer to complete assignments.
Prerequisite(s): ITS 080 or placement score; CPE 061

## ITS 107 HTML Fundamentals (3)

Use HTML and XHTML to develop web sites without the aid of web page composition software.
Prerequisite(s): Equivalent ITS 080 Skills; CPE 061

ITS 108 XML Web Services (3)
Overview of the structure and programming techniques of XML. Role of XML in the Microsoft.NET vision. Distributed standards-based computing fundamentals.
Prerequisite(s): ITS 107
Lab Fee: \$15

ITS 110 Database Management Systems (6)
Step-by-step approach to learning Structured Query Language (SQL). Topics include: data definition, table maintenance, queries, reports and database administration. Relational database design theory.
Prerequisite(s): Computer knowledge level equivalent to ITS 080.
Lab Fee: \$20

## ITS 115 HTML Fundamentals (4)

Use HTML and XHTML to develop web sites without the aid of web page composition software.
Prerequisite(s): Equivalent ITS 080, skills; CPE 061
Lab Fee: \$15

ITS 12A Windows Concepts (2)
Familiarization with the mouse and a graphical operating environment. Topics include all major aspects of Microsoft Windows XP. Knowledge of a personal computer keyboard strongly recommended.
Prerequisite(s): Computer knowledge level equivalent to ITS 080; CPE 061

ITS 12D Beginning Database (1)
Basic database manipulation (e.g. creating, updating, and generating reports) via packaged software (Access 2002). Keyboarding skill strongly recommended. (Students who have little or no keyboarding skills will likely take much longer in completing the assigned tasks.)
Prerequisite(s): Computer knowledge level equivalent to ITS 080; CPE 061

## ITS 12P Beginning Presentation Graphics (1)

Techniques of visual presentation development via the use of a presentation software package (PowerPoint 2002).
Prerequisite(s): Computer knowledge level equivalent to ITS 080; CPE 061

ITS 12S Beginning Spreadsheet (1)
Basic creation and manipulation of data within an electronic spreadsheet (Excel 2002). Planning and creating workbooks, using formulas and functions, creating charts and formatting spreadsheet objects. Students with minimal computer skills will take longer in completing the assigned tasks and may want to consider taking ITS 080, Computer Fundamentals.
Prerequisite(s): Computer knowledge level equivalent to ITS 080; CPE 061

ITS 12W Beginning Word Processing (1)
Basic creation and editing of documents using packaged word processing software (Word 2002). Keyboarding skills strongly recommended. Students who have never worked on a keyboard and have little or no keyboarding skills will likely take much longer in completing the assigned tasks. ITS 102, which teaches keyboarding skills and beginning word processing skills, may be substituted for ITS 12 W . Prerequisite(s): Computer knowledge level equivalent to ITS 080; CPE 061

ITS 130 Open Source Software (3)
Free/Open Source Software (F/OSS) alternatives to commonly used software application packages. Basic creation and editing of word documents, spreadsheets, visual presentations and databases using F/OSS office productivity software (OpenOffice. org). Learn F/OSS browser (Firefox). Keyboarding and minimal computer skills strongly recommended.
Prerequisite(s): ITS 080 or placement score; CPE 061

## ITS 14A Intermediate Windows Concepts (2)

This course builds on the Windows Concepts course by using Internet communication tools, sharing information over a network and between programs, working with images and sound, managing hardware, backing up files and using computer administration tools. (Windows XP)
Prerequisite(s): ITS 12A
ITS 14D Intermediate Database (2)
Intermediate database manipulation techniques using packaged software (Access 2002). Arithmetical/statistical manipulations, labels, reports, indexing, searching, programming, etc. Prerequisite(s): ITS 12D or instructor permission

ITS 14P Intermediate Presentation Graphics (2)
Techniques for adding visual and audio elements to intermediate and expert level presentations. Customizing presentations.
Delivery of presentations. (PowerPoint 2002)
Prerequisite(s): ITS 12P or Instructor Permission
ITS 14S Intermediate Spreadsheet (2)
Intermediate spreadsheet manipulation techniques using packaged software (Excel 2002). Managing files and memory, graphing, database functions, functions and formulas.
Prerequisite(s): ITS 12S or instructor permission
ITS 14 W Intermediate Word Processing (2)
Formatting issues, intermediate and advanced; automating procedures like mail-merge and macros; exchanging data between applications. (Word 2002)
Prerequisite(s): ITS 12W, ITS 102, or ITS 103

## (LPN) Practical Nursing

LPN 108 Basic Nutrition and Diet Therapy (2)
An introduction to the basic principles of nutrition and dietary treatment of common disease conditions and health disorders. Course consists of a total of 20 lecture hours.
Prerequisite(s): BIO 102, BIO 105, ENG 111, ITS 12W or Instructor Permission
Corequisite(s): LPN 125 or Instructor Permission

LPN 125 Introduction to Disease Processes (4)
Basic principles of microbiology, signs and symptoms of common disease/conditions of each body system, diagnostic tests, treatment and principles of nursing care. Course consists of a total of 40 lecture hours.
Prerequisite(s): BIO 102, BIO 105, ENG 111, ITS 12W, PSY 111, Instructor permission Corequisite(s): NUR 114

## LPN 130 Nursing Trends I (2)

Ethical and legal dimensions of practical nursing practice. Historical perspectives on practical nurses and nursing organizations. Course consists of 20 lecture hours.
Prerequisite(s): ENG 111, ITS 12W, PSY 111, Instructor permission

## LPN 133 Nursing Trends II (2)

Identifies career concerns and opportunities for practical nurses. Course consists of 20 hours of lecture.
Prerequisite(s): LPN 130, LPN 146, LPN 151, LPN 171, LPN 182
Corequisite(s): LPN 191, LPN 195

## LPN 146 Pharmacology for Practical Nurses (4)

Basic, essential knowledge of pharmacology for the practical nurse. Major content areas include principles of pharmacology, functions and therapeutic implications of the major drug classes including their prototype drugs, the individuality and variability of patients, and the relationship between pharmacologic knowledge and nursing practice. Content includes IV antibiotic therapy and the practical nurses' role in delivery of them based on specific Ohio Board of Nursing laws and rules. Course consists of 40 hours of lecture.
Prerequisite(s): LPN 125, LPN 130, NUR 114

## LPN 151 Pediatric Nursing (3.5)

Family centered approach to meeting the needs of the pediatric client; application of the nursing process, role of the nurse in the care of the infant/child with common diseases/conditions. 30 hours of lecture, 15 hours of clinical.
Prerequisite(s): LPN 108, LPN 125, LPN 130, LPN 160, PSY 221 or PSY 223
Corequisite(s): LPN 146

## LPN 160 Fundamentals of Nursing I (6)

Role of the nurse in the maintenance and promotion of health, application of nursing, biological, and social sciences, basic assessment techniques, ethical/legal issues. College lab and health care facility settings. Course consists of 40 hours lecture, 20 hours college lab, and 40 hours clinical. Prerequisite(s): BIO 102, BIO 105, PSY 111, ENG 111, ITS 12W, MST 181 or equivalent, Instructor permission Corequisite(s): LPN 108, LPN 125, NUR 114,LPN 130
Lab Fee: \$122
Student Liability Insurance: \$20

LPN 171 Fundamentals of Nursing 11 (6)
Role of the practical nurse in the maintenance and promotion of health; application of medical and surgical asepsis and the use of the nursing process while delivering nursing care to adult clients. Didactic and laboratory content in IV therapy for the practical nurse based on specific Ohio Board of Nursing laws and rules. Course consists of 20 lecture hours, 40 lab hours, and 60 clinical hours.
Prerequisites): LPN 125, LPN 130, LPN 160, NUR 114, LPN 108
Corequisite(s): LPN 146
Lab Fee: \$125
LPN 182 Women's Health and Obstetric Nursing (2.5)
Holistic approach to women's health care and its relationship to the childbearing female. Female anatomy and physiology, male reproductive system, fetal growth and development, normal changes of pregnancy, labor \& delivery, postpartum and care of the newborn with emphasis on preventing complications. Includes impact of childbirth and newborn on family unit and current trends in women's health. 20 hours of lecture, 15 hours of clinical.
Prerequisites): LPN 125, LPN 130, LPN 160, NUR 114, LPN 108
Corequisite(s): LPN 146
LPN 190 Medical-Surgical Nursing (14)
Application of the nursing process while providing nursing care for adult clients with common medical conditions; study and care of the surgical patient from admission through discharge from the hospital; Capstone experience managing nursing care of groups of clients in long-term care setting; identifying career concerns and opportunities; comprehensive review and testing of all prior nursing courses. Course consists of 70 lecture and 210 clinical hours.
Prerequisites): LPN 146, LPN 151, LPN 171, LPN 182
Lab Fee: $\$ 130$

## LPN 191 Medical-Surgical Nursing I (10)

Application of the nursing process while providing nursing care for adult clients with common medical conditions; study and care of the surgical patient from admission through discharge from the hospital. Course consists of 50 hours of lecture and 150 clinical hours.
Prerequisites): LPN 146, LPN, 151, LPN 182, LPN 171 Corequisite(s): LPN 195, LPN 133
Lab Fee: \$65

LPN 195 Medical-Surgical Nursing II (4)
Comprehensive review and testing of all prior nursing classes. Application of the nursing process in a long-term care clinical capstone to provide and manage the nursing care of groups of clients requiring skilled nursing care. Course consists of 20 hours of lecture and 60 hours of clinical.
Prerequisites): LPN 146, LPN 151, LPN 171, LPN 182, Corequisite(s): LPN 133, LPN 191
Lab Fee: $\$ 65$

## (LSC) Logistics

CSC 120 Truck Driver Training 176 (9)
Federal and state regulations, commercial drivers license (CDL) rules, hazardous materials, log books, National Safety Council, map reading, coupling and uncoupling, space and speed management, driving conditions, braking systems, maintenance and inspections, shifting,turning, communications, types of vehicles, loading and unloading. Minimum of 56 classroom hours/ 120 lab hours.
Prerequisites): (1) CDL permit with all required tests completed. (2) Valid Ohio drivers license. (3) DOT physical and drug screen. (4) Industry-standard motor vehicle record.
Lab Fee: \$3238
LSC 210 Purchasing \& Supply Management (4)
Management of purchasing and supply systems common to service, manufacturing, and government organizations. Survey of the interrelationship and interdependence of the purchasing function within supply chain management and other functional areas of business. Emphasis on purchasing policies, procedures, and techniques in the procurement, acquisition, and decision process utilized in the purchasing and acquisition functions.
Prerequisites): MGT 105; MGT 112

## LSC 220 Logistics \& Physical Distribution (4)

Design and management of physical distribution and logistic systems. Interrelationship and interdependence within the functional areas of business. Transportation methods, techniques, physical and automated systems, infrastructure, interrelationships and requirements comprising physical distribution and logistics systems.
Prerequisite (s): MGT 112
Corequisite(s): MGT 266
LSC 272 Operations \& Supply Chain Management (5)
The design and management of production operations, including productivity, quality issues, strategy, capacity planning, location, layout, human resources, just-in-time systems, materials requirement planning and project management.
Prerequisites): MGT 112; MGT 266 or STT 264

## LSC 275 Inventory \& Materials Management (4)

Principles of inventory and materials management systems, common methods of planning and controlling inventory in manufacturing, institutional, distribution, and retail environments. Interrelationship and interdependence of the inventory and materials function within supply chain management and other functional areas of business. Demand forecasting, independent demand inventory systems, inventory models, aggregate planning, priority and capacity management, capacity requirements planning, production activity control and Just-in-Time.
Prerequisite (s): MGT 112

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## (MGT) Management

MGT 100 Personal Finance (3)
A framework of personal money management concepts, including establishing values and goals, determining sources of income, managing income, preparing a budget, developing consumer buying ability, using credit, understanding savings and insurance and providing for adequate retirement and estate planning. Personal computer applications for recordkeeping and decision-making introduced. Not acceptable as an elective in management, logistics or marketing.
Prerequisite(s): None
MGT 105 Contemporary American Business (3)
A broad survey of the American business system encompassing social responsibilities of business, our legal environment and business ethics, government regulation and taxation, forms of business ownership, small business administration, business management, organized labor and other topics.
Prerequisite(s): CPE 061
Corequisite(s): NONE

## MGT 106 Organizational Behavior (4)

An assessment of self, personality, self-concept, perception and verbal and nonverbal communications skills. Includes organizational behavior concepts and practices. Discussion of diversity, job success and development of effective work relations. A view of workplace dynamics including conflict resolution, assertiveness, team problem solving and decision making.
Prerequisite(s): CPE 061
MGT 112 Principles of Management (4)
The four basic management functions: planning, organizing, leading and controlling. Topics include ethics, decision making, planning, structure, power and authority, delegation, leadership and teamwork and motivational theories and productivity.
Prerequisite(s): CPE 061
MGT 200 Introduction to Project Management (4)
Develop business, interpersonal and technical skills required to successfully manage business and system development projects. Covered topics include: project integration; scope, time, cost, quality, human resource, communications, risk and procurement management. Microsoft Project software. Prerequisite(s): Computer knowledge level equivalent to ITS 080; CPE 061
Lab Fee: \$15
MGT 202 Quality Management (4)
Customer satisfaction and quality management through employee involvement. Continuous process improvement, performance measures, Statistical Process Control (SPC), ISO9000, benchmarking and the use of various management tools used for managing quality.
Prerequisite(s): MGT 106, MGT 112
MGT 211 CyberSecurity Management 1 (5)
Introduction to cyber-security management topics. Discussion of legal, ethical and professional issues in cyber-security. Overview of risk management planning, security technologies and security maintenance.
Prerequisite(s): ITS 103 or NTK 176

MGT 212 CyberSecurity Management II (5)
Advanced review of cybersecurity management topics. Indepth analysis of security scenarios via case studies. Hands-on exposure to cyber-security management and analysis software tools.
Prerequisite(s): MGT 211 CyberSecurity Management I
MGT 214 Small Business Theory and Practice (4)
Small business and entrepreneurship. Decision for selfemployment through small business opportunities; business planning, financing, marketing and management. Integration of functional business courses into a balanced overview of entrepreneurship. Application through group activities and projects.
Prerequisite(s): ACC 111, MGT 105, MGT 112
Corequisite(s): MGT 270

## MGT 225 Human Resource Management (3)

Examination of the human resource functions in the business organization. Job analysis, recruitment, hiring, training, performance appraisal and compensation. Psychological forces motivating workers, discipline and morale.
Prerequisite(s): MGT 106, MGT 112
MGT 250 Leadership in Organizations (4)
Development of leadership skills, personal philosophy. Integrates concepts and practice in group settings.
Prerequisite(s): MGT 105, MGT 106, and MGT 112
MGT 260 Legal Environment of Business (3)
History of the law, law of contracts, of agency, sales and personal property. The law of negotiable instruments, partnership, corporations, and real property.
Prerequisite(s): CPE 061
MGT 265 Negotiation Skills (3)
Psychology and techniques of conducting purchasing and other types of business negotiations; mock negotiations using case studies. Principles apply to situations in personal life.
Prerequisite(s): MGT 105, MGT 106 and MGT 112
MGT 266 Quantitative Business Methods (4)
Application of practical business mathematics and statistical processes to analyze business situations.
Prerequisite(s): MTH 106
MGT 268 Introduction to International Business (3)
Global dimensions of business; an overview of theories and institutions of trade, investment, and management emphasizing the managerial perspective on issues arising from international business and worldwide operations. Prerequisite(s): MGT 105

## MGT 270 Business Finance (4)

Financial management of business enterprises with emphasis on financial planning, capital management, capital budgeting, capital markets and time value of money.
Prerequisite(s): ACC 112 and MTH 106

MGT 290 Business Strategy and Policy Seminar (4)
Integrated corporate strategy and policy, including competitive strategy, as well as supporting functional strategies. Concepts in competitive positioning, environmental analysis, competitive differential, and niche strategies. Includes management decision-making in the areas of marketing, production, research and development and finance as well as team dynamics and development.
Prerequisite(s): MGT 105, MGT 112, MKT 200, ITS 103

## (MKT) Marketing

MKT 200 Principles of Marketing (4)
Marketing of products and services. Product development, channels of distribution, pricing structures, promotional aspects, electronic marketing.
Prerequisite(s): CPE 061

## MKT 210 Pricing Strategies (4)

A comprehensive overview of managerially-focused, integrated, pricing analysis and strategy. Overview of pricing calculation methods and tools and analysis and identification of pricing strategy effects on the organization.
Prerequisite(s): MTH 106, MKT 200

## MKT 215 Product Management (3)

Comprehensive overview of product management and the product development process. Overview of a product manager's tasks of market analysis, strategy development and decision making regarding pricing, advertising, promotion and distribution. Utilization of the marketing plan.
Prerequisite(s): MGT 112, MKT 200

## MKT 240 Electronic Business Applications (4)

Exploration of electronic business and the unique requirements of conducting business on the Internet. Application of electronic business techniques and tools. Management issues of electronic commerce. Legal, ethical, social responsibility issues.
Prerequisite(s): MGT 105; ITS 103 or GPH 100
Lab Fee: $\$ 20$

## MKT 245 Sales and Sales Management (3)

The role of selling in our economy. Psychology of selling, the sales process, motivation of the salesperson. Fundamentals and techniques of selling in relation to various types of goods and services.
Prerequisite(s): MGT 112, MKT 200

## MKT 255 Promotion Strategies (4)

Comprehensive overview of promotion and integrated communication strategies and techniques. Overview of the integrated marketing communication system and its tools for communication with internal and external customers. Prerequisite(s): MKT 210; MKT 215

## (MLT) Medical Laboratory

MLT 101 Medical Laboratory Orientation (2)
History, role and professional responsibilities of the medical laboratory technician. Organization of the medical laboratory. Medical terminology.
Prerequisite(s): CPE 061 or appropriate Compass score, Instructor permission required
Corequisite(s): MLT 102

## MLT 102 Medical Laboratory Orientation Laboratory (1)

Principles of laboratory instrumentation. Use and care of laboratory instruments. Laboratory safety.
Prerequisite(s): CPE 061 or appropriate Compass score, Instructor permission required
Corequisite(s): MLT 101
Lab Fee: \$55
MLT 111 Chemistry for Technicians (3)
Chemistry of matter and measurement, atoms, molecules and ions, formulas, equations and moles, aqueous solution reactions, atomic structure, ionic and covalent bonding, saturated hydrocarbons, unsaturated hydrocarbons, alcohols, aldehydes, ketones, and carbohydrates.
Prerequisite(s): CPE 061 and CPE 101 or appropriate Compass score, Instructor permission required
Student Liability Insurance: $\$ 20$

## MLT 116 Phlebotomy (2)

Comprehensive background in the theory and principles of phlebotomy. Quality Assurance and Total Quality Management.
Prerequisite(s): CPE 061 or appropriate Compass score, Instructor permission required
Corequisite(s): MLT 117

## MLT 117 Phlebotomy Laboratory (2)

Up-to-date practical instruction in phlebotomy procedures. Quality assurance and total quality management for laboratory practice.
Prerequisite(s): CPE 061 or appropriate Compass score, Instructor permission required
Corequisite(s): MLT 116
Lab Fee: \$35

## MLT 123 Medical Microbiology I (3)

Identification of bacteria by microscope, media, inoculation, biochemical activities and sensitivity testing. Basic disease processes.
Prerequisite(s): MLT 101, MLT 102, CPE 061 or appropriate Compass score, Instructor permission required Corequisite(s): MLT 124

## MLT 124 Medical Microbiology I Laboratory (2)

Basic microbiology concepts. Identification of bacteria by microscope, media, inoculation, biochemical activities and sensitivity testing.
Prerequisite(s): MLT 101, MLT 102, CPE 061 or appropriate
Compass score, Instructor permission required
Corequisite(s): MLT 123
Lab Fee: \$105

MLT 125 Hematology I (3)
The origin, formation and purpose of the formed elements of the blood, differential morphology and staining techniques. Quality control.
Prerequisite(s): MLT 101, MLT 102, CPE 061 or appropriate Compass score, Instructor permission required
Corequisite(s): MLT 126

## MLT 126 Hematology I Laboratory (3)

Manual and automated hematology instrumentation techniques and principles of counting erythrocytes, leukocytes and thrombocytes; determination of red blood cell indices. Quality control.
Prerequisite(s): MLT 101, MLT 102, CPE 061 or appropriate Compass score, Instructor permission required Corequisite(s): MLT 125
Lab Fee: $\$ 100$

## MLT 131 Clinical Chemistry (3)

Principles, procedures, quality assurance and clinical significance of quantitative chemical analysis of body fluids, carbohydrates, lipids, proteins, electrolytes, endogenous toxic substances, blood gases, pH , enzymes, vitamins, hormones and exogenous toxic substances.
Prerequisite(s): MLT 111, Instructor permission required Corequisite(s): MLT 132

MLT 132 Clinical Chemistry Laboratory (3)
Quantitative chemical analysis of body fluids, carbohydrates, lipids, proteins, electrolytes, endogenous toxic substances, blood gases, pH, enzymes, vitamins, hormones and exogenous toxic substances.
Prerequisite(s): MLT 111, Instructor permission required
Corequisite(s): MLT 131
Lab Fee: \$105
MLT 135 Urinalysis and Body Fluids (2)
Urinalysis principles including physical and chemical characteristics and microscopic analysis of urinary sediment. Body fluids: amniotic, semen, fecal, synovial, spinal.
Prerequisite(s): MLT 101, MLT 102, CPE 061 or appropriate Compass score, Instructor permission required Corequisite(s): MLT 136

MLT 136 Urinalysis and Body Fluids Laboratory (2)
Basic urinalysis techniques including physical and chemical characteristics and microscopic analysis of urinary sediment. Basic techniques for amniotic, semen, fecal, synovial and spinal fluid analysis.
Prerequisite(s): MLT 101, MLT 102, CPE 061 or appropriate Compass score, Instructor permission required Corequisite(s): MLT 135
Lab Fee: $\$ 85$
MLT 211 Immunology (3)
Principles and theories of the production and characteristics of antigen-antibody reactions, formation and reactions of antigens and antibodies.
Prerequisite(s): ENG 111, BIO 105, MLT 125, MLT 126, and ITS 103, Instructor permission required
Corequisite(s): MLT 212
Student Liability Insurance: \$20

MLT 212 Immunology Laboratory (1)
Techniques of agglutination, precipitation, flocculation, immunodiffusion, immunofluorescence, ELISA and EIA.
Prerequisite(s): MLT 125, MLT 126, Instructor permission required
Corequisite(s): MLT 211
Lab Fee: $\$ 105$
MLT 213 Medical Microbiology II (3)
Identification of microbial agents associated with disease in man including bacteria, viruses and parasites. Specimen collection. Quality Control.
Prerequisite(s): ENG 111, BIO 105, ITS 103, MLT 123, MLT 124, Instructor permission required Corequisite(s): MLT 214

MLT 214 Medical Microbiology II Laboratory (3)
Techniques to isolate, identify, and evaluate the presence of clinically significant microorganisms.
Prerequisite(s): MLT 123, MLT 124, Instructor permission required
Corequisite(s): MLT 213
Lab Fee: $\$ 105$

## MLT 223 Hematology II (3)

Disorders of blood cells and platelets including biochemistry of the red blood cell, anemias, leukemias. Principles and procedures of coagulation.
Prerequisite(s): ENG 111, BIO 105, ITS 103, MLT 125, MLT 126, Instructor permission required
Corequisite(s): MLT 224

## MLT 224 Hematology II Laboratory (3)

Manual and automated instrumentation techniques used within a hematology department. Differential counting of abnormal cells. Coagulation.
Prerequisite(s): MLT 125, MLT 126, Instructor permission required
Corequisite(s): MLT 223
Lab Fee: $\$ 70$

## MLT 226 Immunohematology (4)

Responsibility of blood bank work, blood collection and processing. Genotypes and phenotypes of ABO and Rh blood group systems.
Prerequisite(s): MLT 211, MLT 212, Instructor permission required
Corequisite(s): MLT 227
MLT 227 Immunohematology Laboratory (4)
Typing techniques, principles, procedures; crossmatch and panel screening; atypical antibody identification and quality control.
Prerequisite(s): MLT 211, MLT 212, Instructor permission required
Corequisite(s): MLT 226
Lab Fee: $\$ 145$

MLT 270 MLT Review \& Update (4)
Review and update of: urinalysis, hematology, clinical chemistry, medical microbiology, immunology, immunohematology.
Prerequisite(s): All prior coursework leading to a degree in Medical Laboratory Technology, Instructor permission required

## MLT 280 Directed Practice (8)

Clinical site assignment; departmental rotation; application of principles and techniques under supervision of clinical staff and college faculty.
Prerequisite(s): All MLT coursework required prior to graduation, Instructor permission required
Corequisite(s): MLT 290

## MLT 290 MLT Seminar (4)

Weekly review of problems and progress in Directed Practice. Current topics; quality control; review exams; case studies; and student presentation of research project.
Prerequisite(s): All MLT coursework required prior to graduation, Instructor permission required
Corequisite(s): MLT 280

## (MST) Multi-Skilled Healthcare

MST 101 Introduction to Health Care Delivery (3)
Introduction to health care delivery system including history, scope of services, providers, settings, financing, professionalism, individual health care rights/responsibilities and current issues and opportunities in health care.
Prerequisite(s): CPE 061 or appropriate COMPASS score

## MST 104 Foundations of Client Care (3)

Introduction to foundational concepts of client care that apply to any setting. Topics include identification of basic human needs, importance of verbal and oral communication, promoting safe environment, recognition and appropriate response to medical and non-medical emergencies, infection control practices.
Prerequisite(s): CPE 061 or appropriate COMPASS score

## MST 171 Introduction to Electrocardiography (3)

Principles of electrocardiography (ECG) including basic cardiac anatomy and physiology, basic ECG interpretation, identification of common abnormal tracings, and equipment operation, troubleshooting and recording of rhythm strips and multi-lead ECGs.
Prerequisite(s): BIO 102
Corequisite(s): BIO 105 or BIO 121
Lab Fee: $\$ 15$
MST 181 Nurse Aide Training (6)
Preparation for long-term care meeting requirements for nurse aide training in Ohio. Classroom training plus 24 clinical hours at the end of the course.
Prerequisite(s): CPE 061 or appropriate Compass score Lab Fee: \$25
Student Liability Insurance: \$20

MST 182 Patient Care Technician (4)
Theory, practice, and evaluation in performing patient care technician skills. Role, job description, legal/ethical issues, personal care and treatments performed by the patient care technician in acute or sub-acute health care facilities. Emphasis on safety, observation and reporting.
Prerequisite(s): MST 181 or STNA credential, EMS 171 or professional CPR certification, Instructor permission
Corequisite(s): BIO 102, BIO 105
Lab Fee: \$50
Student Liability Insurance: $\$ 20$

## (MTH) Mathematics

MTH 101 Technical Mathematics Applications A (1)
Applications course for Engineering Technology students. Instruction in the use of scientific calculators and other technology. Topics include: area $\&$ volume, scientific notation \& significant figures, metric/English conversions, geometry applications, graphing applications and vector forces.
Prerequisite(s): CPE101 or placement test score, CPE 061 Corequisite(s): CPE 102
Lab Fee: $\$ 10$
MTH 105 Mathematics and Today's World (3)
A survey of contemporary mathematical ideas and the application of mathematical tools for solving real world problems to demonstrate the variety of problems that can be modeled and solved by quantitative means.
Prerequisite(s): CPE 103 or an appropriate Compass score on the algebra placement test or equivalent

## MTH 106 Business Mathematics (3)

Development and application of practical business mathematics principles to include: checking accounts, bank reconciliation, percentages and their applications, simple and compound interest, depreciation, markups and markdowns, trade and cash discounts, sales and property taxes, promissory notes, the discounting process, annuities, insurance, loan amortization and business statistics.
Prerequisite(s): CPE 101
MTH 107 Technical Mathematics Applications B (1)
Applications course for Engineering Technology students to supplement MTH 121. Instruction in the use of scientific calculators and other technology. Topics include: scientific notation and significant figures, applied functional notation, geometry applications, graphing applications. Applications of linear and quadratic functions, and use of conic sections. Prerequisite(s): CPE 103, MTH 101, CPE 091
Corequisite(s): MTH 120 or MTH 121
Lab Fee: \$10

## MTH 108 Technical Mathematics Applications C (1)

Applications course for Engineering Technology students to supplement MTH 140. Use of the scientific calculator and other technology. Topics include: applied problems involving radian measure, trigonometric functions, vectors, polar coordinates and trigonometric identities.
Prerequisite(s): MTH 107; MTH 120 or MTH 121, CPE 091
Corequisite(s): MTH 140
Lab Fee: $\$ 10$

MTH 120 College Algebra IA (5)
Algebraic expressions; equations and inequalities; linear, polynomial and transcendental functions and their graphs; systems of equations and inequalities, analytic geometry. Note: Topics covered are exactly the same as topics covered in College Algebra I (MTH 121), but this course will involve more in-class practice of important skills.
Prerequisite(s): CPE 061, CPE 103 or appropriate Compass score

MTH 121 College Algebral(3)
Algebraic expressions; equations and inequalities; linear, polynomial and transcendental functions and their graphs; systems of equations and inequalities, analytic geometry. Prerequisite(s): CPE 061, CPE 103 or an appropriate Compass score

## MTH 122 College Algebra II (3)

Continuation of the concepts begun in MTH 121 and includes additional topics in complex numbers, synthetic division, remainder theorem, factor theorem, matrices and determinants, Gauss-Jordan, Cramer's Rule, sequences and series, permutations, combinations, probability and variation.
Prerequisite(s): MTH 120 or MTH 121 or an appropriate Compass score

MTH 140 Trigonometry (3)
Familiarizes the student with topics in trigonometry, including trigonometric functions, solving triangles, laws of sines and cosines, unit circles, vectors, graphs of trigonometric functions, polar coordinates, identities and trigonometric equations.
Prerequisite(s): High school geometry and MTH 120 or MTH 121 or an appropriate Compass score

MTH 220 Calculus for the Management, Life and Social Sciences (5)
Functions; limits; derivatives of polynomial, exponential and logarithmic functions; integrals of polynomial, exponential and logarithmic functions; maxima and minima; applications appropriate to biology, medicine, business, economics, social and behavioral sciences.
Prerequisite(s): MTH 120 or MTH 121 or an appropriate Compass score

## MTH 221 Calculus I (5)

Functions, limits, continuity, differentiation of polynomi al,trigonometric, logarithmic, and exponential functions, differentiation rules, applications of the derivative.
Prerequisite(s): MTH 122 and MTH 140 or an appropriate Compass score

MTH 222 Calculus II (5)
L'Hospital's Rule, Riemann sums, definite and indefinite integrals, improper integrals, applications of the integrals of polynomial, logarithmic, exponential and trigonometric functions, techniques of integration, differential equations, directional fields and Euler's method, separable equations, exponential growth and decay.
Prerequisite(s): MTH 221

MTH 223 Calculus III (5)
Power series, Taylor series, Maclaurin series, vectors, dot product, cross product, equations of lines and planes polar curves, polar coordinates, surfaces, cylindrical and spherical coordinates, parametric curves, vector functions and space curves, derivatives and integrals of vector functions, motion in space, parametric surfaces.
Prerequisite(s): MTH 222

## MTH 224 Calculus IV/ Multivariate Calculus (5)

Vector valued functions, cylindrical and spherical coordinate functions, partial derivatives, multiple integrals, Stoke's Theorem, Green's Theorem and applications of the above topics.
Prerequisite(s): MTH 223

## MTH 230 Differential Equations (5)

First order equations, linear equations and systems, series solutions, Laplace transforms, uniqueness and existence of solutions, applications of differential equations.
Prerequisite(s): MTH 223
MTH 240 Linear Algebra (3)
Linear systems, matrices, matrix algebra, determinants, linear transformations, eigenvalues, eigenvectors, vector spaces.
Prerequisite(s): MTH 222

## (MUS) Music

MUS 100 Fundamentals of Piano (2)
Group instruction focusing on the fundamentals of piano performance skills.
Prerequisite(s): None
Corequisite(s): None
Lab Fee: \$50

## MUS 130 Music Appreciation (3)

Survey of Western music from approximately A.D. 1500 onward. Chronological presentation of material supplemented with listening examples and live performances.
Prerequisite(s): CPE 061
MUS 141 Fundamentals of Piano (1)
An introductory course focusing on the fundamentals of piano performance skills in a group setting; 2 hours per week.
Prerequisite(s): None
Corequisite(s): None
Lab Fee: \$50

## MUS 150 Clark State Chorale (1)

Mixed choir specializing in the study and performance of choral works of a variety of stylistic periods, musical theatre and jazz. School and public performances required. May be repeated up to 6 credit hours.
Prerequisite(s): None
Lab Fee: $\$ 15$

## MUS 151 Applied Music I (1)

Private instrument instruction focusing on the fundamentals of instrument performance skills. Thirty minutes of private instruction per week. A minimum of 6.5 hours of practice time required.
Prerequisite(s): None
Corequisite(s): None
Lab Fee: \$50

## MUS 152 Applied Music II (2)

Private instrument instruction focusing on the fundamentals of instrument performanc skills. One hour of private instruction per week. A minimum of 13 hours of practice time required per week.
Prerequisite(s): None
Corequisite(s): None
Lab Fee: $\$ 100$

## MUS 160 Applied Voice (1)

Private voice instruction focusing on the fundamentals of voice production, song literature, interpretation and performance skills.
Prerequisite(s): None
Lab Fee: \$50

## MUS 170 Applied Piano (1)

Private piano instruction focusing on the fundamentals of piano performance skills.
Prerequisite(s): None
Lab Fee: \$50

## MUS 292 Applied Percussion (2)

This course will teach students basic techniques and concepts used in modern percussion. Instruction will be individualized; students will progress at their own pace. Students will learn how rhythm, meter and technique interrelate to make percussion one of the most visceral and powerful arts.
Prerequisite(s): None
Corequisite(s): None
Lab Fee: $\$ 100$

## MUS 293 Applied Percussion (1)

This course will teach students basic techniques and concepts used in modern percussion. Instruction will be individualized; students will progress at their own pace. Students will learn how rhythm, meter and technique interrelate to make percussion one of the most visceral and powerful arts.
Prerequisite(s): None
Corequisite(s): None
Lab Fee: \$50

## MUS 295 Applied Music (1)

Private music instruction focusing on the fundamentals of individual performance skills.
Prerequisite(s): None
Lab Fee: \$50

## (NTK) Network Administration

NTK 176 PC/Network Essentials 1 (6)
Basic knowledge for properly installing, configuring, upgrading and troubleshooting microcomputer hardware. Coverage includes desktop and server systems, basic networking and printers. First of a three-course sequence that covers A+ and Server + certification objectives.
Prerequisite(s): CPE 061
Lab Fee: \$50

## NTK 178 PC/Network Essentials II (6)

Intensive introduction to multi-tasking operating systems and networking operating systems. Coverage includes: operating system upgrades/configuration, installation procedures, security issues, backup procedures, remote access, command line and graphical user interfaces. Second course in a three-course sequence that covers the A+ and Server+ certification objectives.
Prerequisite(s): CPE 091; NTK 176 or NTK 172 or ITS 172 or CIS 172 or instructor permission
Lab Fee: \$50
NTK 179 PC/Network Essentials III (6)
Overview of local area network technologies. Introduction to the OSI and TCP/IP models, networking devices and network protocols. Hands-on experience with designing and implementing network services.
Prerequisite(s): NTK 178 or NTK 174 or instructor permission
Lab Fee: \$50

## NTK 201 Cisco Associate I (5)

Overview of computer networking concepts, theories and structures. Discussion of the OSI network model, network addressing, data encapsulation and TCP/IP network-layer protocols. This course is part of a set of courses that cover material for the CCNA and Network+ certification exams. Prerequisite(s): CPE 101; NTK 179 or (NTK 174 and NTK 152) or (NTK 174 and NTK 154) or instructor permission
Lab Fee: $\$ 50$

## NTK 202 Cisco Associate II (5)

Overview of network router concepts and theory. Discussion of router elements, TCP/IP transport-layer protocols, and flow control. Hands-on experience with router setup, configuration, and monitoring. This course is part of a set of courses that cover material for the CCNA and Network+ certification exams.
Prerequisite(s): NTK 201 or Instructor permission
Lab Fee: $\$ 50$
NTK 203 Cisco Associate III (5)
Advanced network routing and switching concepts and theory. Discussion of IPX protocol, LAN segmentation, bridges, routers, switches, Ethernet, Fast Ethernet and virtual LANS. Hands-on experience with advanced router setup and configuration. This course is part of a set of courses that cover material for the CCNA and Network+ certification exams.
Prerequisite(s): CPE 101; NTK 202 or Instructor permission
Lab Fee: $\$ 50$

NTK 221 Information Security I (5)
Overview of computer/information security concepts. Assessment, development and implementation of security policies. Review of information/network security tools and resources.
Prerequisite(s): CPE 101; NTK 179 or (NTK 174 and NTK 152) or (NTK 174 and NTK 154) or instructor permission Lab Fee: \$50

NTK 222 Information Security II (5)
Advanced discussion of information security topics, including TCP/IP routing protocols, internetworking technologies, cryptology, firewalls, VPNs, encryption and others. Handson use/review of computer security software.
Prerequisite(s): NTK 221
Lab Fee: $\$ 50$

NTK 225 Wireless Networking I (5)
Overview of wireless network technologies. Emphasis on design, planning, implementation, operation and troubleshooting of WLANS. Hands-on experience with wireless access points, network interfaces, gateways and other devices.
Prerequisite(s): NTK 179 or (NTK 174 and NTK 152) or (NTK 174 and NTK 154) or instructor permission Lab Fee: \$50

NTK 240 Unix/Linux Administration I (5)
Discussion of the Unix/Linux file system. Maintenance tasks, customizing the GUI interface, Linux commands. File access permissions, printing commands and utilities. Managing user accounts.
Prerequisite(s): NTK 179 or (NTK 174 and NTK 152) or (NTK 174 and NTK 154) or instructor permission Lab Fee: \$50

NTK 245 CyberSecurity - OS and Networks (5)
Introduction to computer operating system and network security methodologies and processes. Operating system and network hardening and defense strategies.
Prerequisite(s): MGT 211 CyberSecurity Management I
Lab Fee: \$50
NTK 246 CyberSecurity - Firewall Technologies (5)
Introduction to computer and network firewalls. Creation and implementation of network security policies. Discussion of packet filtering, authentication, proxy servers, encryption, virtual private networks, intrusion detection systems.
Prerequisite(s): MGT 211
Lab Fee: \$50
NTK 247 CyberSecurity - Forensic Analysis (5)
Introduction to computer investigative/forensic techniques. Forensic tools, evidence controls, data acquisition, forensic analysis and investigative techniques.
Prerequisite(s): MGT 211
Lab Fee: \$50

NTK 255 Introduction to Oracle (5)
Introduction to database server technology. Relational and object relational databases and SQL. Creation and maintenance of database objects. Store, retrieve and manipulate data. Retrieve data using advanced techniques such as ROLLUP, CUBE, set operators and hierarchical retrieval. One of two classes needed for the Oracle Certified Associate (OCA) certification.
Prerequisite(s): CPE 101; NTK 179 or (NTK 174 and NTK 152) or (NTK 174 and NTK 154) or instructor permission Lab Fee: \$50

NTK 256 Oracle Administration I (5)
Designing, creating, and maintaining an Oracle database. Conceptual understanding of the Oracle database architecture and how its components work and interact with one another. Creation of an operational database and proper management of the various structures in an effective and efficient manner. One of two courses needed for the Oracle Certified Associate (OCA) certification.
Prerequisite(s): NTK 255
Lab Fee: \$50
NTK 257 Oracle Data Mining \& Warehousing (5)
Planning, designing, building, populating, and maintaining a successful data warehouse. Oracle warehouse data technology. Designing, implementing and running a data warehouse. Prerequisite(s): NTK 256
Lab Fee: \$50

## NTK 270 Administering Microsoft Professional (5)

Hands-on experience with the XP Professional operating system. Installing, configuring, optimizing and troubleshooting. Course covers Microsoft certification objectives.
Prerequisite(s): CPE 101; NTK 179 or (NTK 174 and NTK 152) or (NTK 174 and NTK 154) or instructor permission Lab Fee: $\$ 50$

## NTK 272 Administering Microsoft Server (5)

Hands-on experience with server operating system. Planning, installing, configuring, managing, optimizing and troubleshooting. Course covers Microsoft certification objectives.
Prerequisite(s): NTK 270 or instructor permission Lab Fee: \$50

NTK 274 Administering Microsoft Network Infrastructure (5) Installing, managing, monitoring, configuring, and troubleshooting DNS, DHCP, Remote Access, Network Protocols, IP Routing, and WINS in a network infrastructure. Course covers microsoft certification objectives.
Prerequisite(s): NTK 270 or instructor permission
Lab Fee: \$50
NTK 276 Administering Microsoft Directory Services (5)
Installing, configuring, and troubleshooting the components of Active Directory. Backing up and restoring Active Directory. Course covers Microsoft certification objectives. Prerequisite(s): NTK 270 or instructor permission Corequisite(s): NTK 272 (may be taken as a prerequisite) Lab Fee: \$50

NTK 277 Designing Microsoft Directory Services Infrastructure (5) Analysis of business requirements and the design of a directory service architecture using Active Directory. Connectivity between and within systems and data replication. Course covers Microsoft certification requirements.
Prerequisite(s): NTK 270 or instructor permission Corequisite(s): NTK 272 (may be taken as a prerequisite) Lab Fee: \$50

NTK 278 Designing Microsoft Security (5)
Analysis of business requirements for security and designing a security solution that meets business requirements. Controlling access to resources, auditing, authentication and encryption. Course covers Microsoft certification objectives. Prerequisite(s): NTK 270 or instructor permission Lab Fee: \$50

NTK 279 Managing a Microsoft Network Environment (5)
Configuring, managing, securing, and troubleshooting web resources, network infrastructure, remote access, Active Directory, client and server computers. Covers Microsoft certification objectives.
Prerequisite(s): CPE 061
Corequisite(s): NTK 270 (may be taken as a prerequisite) Lab Fee: \$50

NTK 288 Advanced Networking Topics (5)
Overview of ethics in the information technology field. Assessment of skills and competencies of Network Administration students through project-based activities. Requires an oral and written presentation. Course should be taken in the last quarter prior to graduation.
Prerequisite(s): ENG 112 or ENG 135; ITS 200; NTK 201 or NTK 270 or NTK 255 or NTK 221 or instructor permission

## (NUR) Nursing

NUR 110 Nursing Academic Success Seminar (1)
Designed to assist students to acquire knowledge and skills needed for academic success in nursing program and lifelong learning. Identify priorities in learning; develop study and time management skills; enhance test-taking skills. Consists of 10 classroom hours.
Prerequisite(s): CPE 062 or equivalent COMPASS score Corequisite(s): NUR 170

NUR 114 Dosage Calculations I (1)
Systems of measurement and calculation of drug dosage. Consists of 20 lab hours.
Prerequisite(s): CPE 091, CPE101 or appropriate Compass scores

## NUR 120 Pharmacology (3)

Introduction to basic pharmacologic principles, drug administration, consumer safety and drug regulation in U.S. Discussion of major drug classifications and prototype drugs including mechanism of action, therapeutic uses and important adverse effects. Includes professional nurse's role and responsibilities in drug therapy. Consists of 30 classroom hours.
Prerequisite(s): BIO 102, BIO 121, BIO 122, BIO 123, NUR 171
Corequisite(s): NUR 172 must be taken concurrently

NUR 170 Nursing I (6)
Introduction of concepts basic to nursing. Basic assessment techniques. Role of nursing in maintenance and promotion of health. Introduction to pharmacology. Introduces nursing process. Consists of 40 classroom, 20 college lab and 40 clinical hours.
Prerequisite(s): MST 181 within past two years or equivalent, BIO 102, BIO 121
Corequisite(s): BIO 122, ITS 103, NUR 114
Lab Fee: \$69
Student Liability Insurance: \$20
NUR 171 Nursing 11 (6)
Apply concepts from Nursing I. Integrates Pharmacology and diet therapy in caring for the child and adult with surgery, common problems affecting mobility and common problems affecting gastrointestinal functioning. Examines the application of ethical/legal issues. Consists of 40 classroom, 20 college lab and 40 clinical hours.
Prerequisite(s): BIO 122, ITS 103, NUR 114, NUR 170
Corequisite(s): BIO 123
Lab Fee: \$70

NUR 172 Nursing III (8)
Applies concepts from Nursing I and II. Integrates pharmacology and diet therapy in caring for the child and adult with common problems of the cardiovascular system (including stroke), diabetes mellitus and respiratory system. Examines the application of ethical/legal issues. Consists of 50 classroom and 90 clinical hours.
Prerequisite(s): BIO 123, NUR 171
Corequisite(s): NUR 120 must be taken concurrently Lab Fee: \$80

NUR 175 Transition to Registered Nursing (4)
Ohio Nursing Articulation Model transition course. Explore integrative concepts in nursing. Refine and update previous learning. Use of nursing process to solve problems with focus on client assessment and communication. Identify goals for successful transition to Registered Nursing program. Consists of 30 online classroom and 20 college lab hours.
Prerequisite(s): BIO 122, ITS 103, NUR 114, current licensure as a practical nurse
Corequisite(s): BIO 123
Lab Fee: \$75

NUR 200 Service Learning Project (1)
Students work in groups to plan, execute and evaluate a community health promotion project under the guidance and supervision of nursing faculty. Projects meet identified community health needs and reinforce skills and concepts addressed in other nursing courses. Projects are section specific and published with quarter schedule. Consists of 20 lab hours.
Prerequisite(s): NUR 170 or NUR 175, ENG 112

NUR 265 Nursing VIII (5)
Application of the nursing process to meet the needs of clients of various ages in acute and community settings, Addresses women's health issues, complex cardiovascular, neurologic and multi-system disorders. Examines related ethical, legal and professional practice issues. Consists of 40 classroom and 30 clinical hours
Prerequisite(s): NUR 200, NUR 274, NUR 275, NUR 276 Corequisite(s): NUR 266, NUR 267

NUR 266 Directed Nursing Practice (2)
Application of nursing process to provide and manage nursing care of groups of clients with common health care problems. Facilitates transition from student to professional nurse. Consists of 110 directed practice hours in clinical setting under supervision of registered nurse preceptor.
Prerequisite(s): NUR 200, NUR 274, NUR 275, NUR 276 Corequisite(s): NUR 265, NUR 267,

NUR 267 Nursing VII (4)
Application of the nursing process when caring for clients in the extended care facility. Emphasis placed on endocrine and liver disorders; gerontologic nursing; management concepts; health care delivery systems; and ethical, legal and professional practice issues. Consists of 30 classroom and 30 clinical hours.
Prerequisite(s): NUR 200, NUR 274, NUR 275, NUR 276 Corequisite(s): NUR 265, NUR 266

NUR 268 Nursing VIII (3)
Application of the nursing process to meet the needs of clients of various ages in acute and community settings. Emphasizes health promotion and growth and development of the young and middle age adult, emergency care concepts, care of adult clients with gynecologic, breast and immunologic disorders and children with congenital cardiac and neurologic disorders. Examines ethical, legal and professional practice issues as they apply. Consists of 20 classroom and 30 clinical hours.
Prerequisite(s): NUR 200, NUR 274, NUR 275, NUR 276 Corequisite(s): NUR 267, NUR 269

NUR 269 Nursing IX (6)
Addresses nursing care of clients with complex cardiovascular, neurologic and multi-system disorders. Examines ethical, legal and professional practice and development issues as they apply. Application of the nursing process in an acute care preceptorship to provide and manage the nursing care of groups of clients with common health care problems. Consists of 20 classroom and 120 clinical hours.
Prerequisite(s): NUR 200, NUR 274, NUR 275, NUR 276 Corequisite(s): NUR 267, NUR 268

NUR 274 Nursing IV (5)
Family-centered approach to meeting the needs of mother and newborn; application of the nursing process; the normal physiological changes of pregnancy with emphasis on the prevention of complications and conditions of high-risk newborn; experience in the hospital and community setting. Consists of 30 classroom and 60 clinical hours.
Prerequisite(s): BIO 123, BIO 131, NUR 120, NUR 172 or NUR 175, PSY 223
Corequisite(s): NUR 275
Lab Fee: \$30

NUR 275 Nursing V (5)
Application of the nursing process in meeting the mental health needs of clients and individuals. Utilization of therapeutic communication techniques, psychiatric treatment modalities and community resources in the prevention and treatment of common emotional and behavioral disorders. Consists of 30 classroom and 60 clinical hours.
Prerequisite(s): BIO 123, BIO 131, NUR 120, NUR 172 or NUR 175
Corequisite(s): NUR 274
Lab Fee: \$30
Student Liability Insurance: \$20
NUR 276 Nursing VI (11)
Expands on concepts presented in Level I (NUR 170, 171, 172). Provides care to clients of various age groups with common problems affecting hematologic, cellular, sensory, neurologic and genitourinary functions. Addresses complex nursing care of clients with altered cardiovascular and respiratory function. Utilizes the nursing process to emphasize priority setting and decision making. Hospital and community clinical settings are used for clinical experiences. Consists of 70 classroom and 120 clinical hours.
Prerequisite(s): BIO 123, BIO 131, NUR 120, NUR 172 or NUR 175, PSY 223
Lab Fee: $\$ 70$
Student Liability Insurance: \$20
NUR 280 Nursing Seminar (2)
Reflection, analysis, and sharing of the final quarter's clinical learning experiences. Structured individual and group program review activities. Application of critical thinking skills to solve a variety of nursing care problems. Consists of 20 classroom hours.
Prerequisite(s): NUR 267, NUR 268, NUR 269
Lab Fee: \$55
NUR 281 Nursing Comprehensive Review Seminar (2)
Designed to assist graduating students to strengthen their knowledge and skills. Utlize nursing process as framework for review of care for clients across the lifespan exeriencing the need for health care. Emphasis placed on current NCLEXRN test plan. Consists of 40 practice lab hours. Prerequisite(s): NUR 265, NUR 266, NUR 267 Lab Fee: \$55

## (OAD) Office Administration

OAD 101 Document Production I (5)
Production of common business correspondence, simple reports and basic tables, utilizing Microsoft Word software. Emphasis on accuracy.
Prerequisite(s): Ability to key the alphabetic and numeric keys by touch using appropriate techniques at a rate of at least 20 WPM.

OAD 102 Document Production II (5)
Production of complex business correspondence, reports and tables and administrative utilizing Microsoft Word/Excel software. Introduction to desktop publishing. Emphasis on speed and accuracy.
Prerequisite(s): OAD 101 or proficiency test
OAD 103 Document Production III (4)
Production and integration of business documents utilizing Microsoft Office Suite.
Prerequisite(s): OAD 102

## OAD 105 Business English (4)

A basic business English course covering the following parts of speech: punctuation, sentence structure, capitalization, number usage, plurals, and possessives.
Prerequisite(s): CPE 061
OAD 130 Advanced Grammar \& Proofreading (4)
Mastery of grammar and punctuation concepts and proofreading skills.
Prerequisite(s): OAD 105 or instructor permission
OAD 135 Office Procedures (4)
Basic office skills including communicating effectively, time management, processing mail, scheduling appointments, greeting visitors, making travel arrangements, planning meetings and conferences and telephone techniques. Prerequisite(s): OAD 105 or instructor permission

## OAD 140 Records Management (3)

Basic principles and procedures of records storage, including alphabetic, geographic, numeric, and subject methods as well as records control, retrieval and management.
Prerequisite(s): CPE 061
OAD 245 Machine Transcription (4)
Introduction to machine transcription and production of mailable transcripts of letters, memos, agendas, news releases, speeches, minutes, special projects, etc.
Prerequisite(s): OAD 101, OAD 130; or instructor permission

OAD 246 Advanced Machine Transcription (4)
Machine transcription and production of mailable transcripts of letters, memos, agendas, news releases, speeches, minutes, special projects, etc., of increased difficulty.
Prerequisite(s): OAD 245 or instructor permission
OAD 248 Basic Medical Machine Transcription (4)
Introduction to machine transcription and production of medical documents.
Prerequisite(s): OAD 101, OAD 130
Corequisite(s): BIO 102

OAD 249 Advanced Medical Machine Transcription (4)
Machine transcription and production of patients' case histories, x-ray reports, clinical resumes, consultant reports, etc.
Prerequisite(s): OAD 248
OAD 256 Medical Office Management (4)
Development of techniques for acquiring advanced skills in the use of a medical management software package on a microcomputer.
Prerequisite(s): OAD 103, OAD 135, OAD 140, OAD 248, BIO 102

OAD 260 Office Simulation (5)
A comprehensive course making use of all knowledge and skills necessary to perform the duties in a modern office. A project-centered approach exposing the student to a wide variety of situations demanding judgment, initiative, decision-making, organizing and planning work, meeting deadlines and other related administrative abilities.
Prerequisite(s): ENG 221, ITS 12D, ITS 12S, ITS 101, OAD 103, OAD 135, OAD 140
Corequisite(s): ITS 12P

## OAD 270 CPT-Coding (5)

Introduction to ambulatory coding and payment systems emphasizing CPT-4 coding. Laboratory experience with emphasis on application of related skills with accuracy and completeness.
Prerequisite(s): BIO 102, BIO 105

## OAD 272 ICD-9-CM Coding (5)

Introduction to the nomenclature and major classification and indexing systems in ICD-9-CM utilized in coding medical information. Laboratory experience emphasizing application of related skills with accuracy and completeness. Other coding systems discussed.
Prerequisite(s): BIO 102, BIO 105

## OAD 285 Co-op Education/Internship (2)

Relating academic studies to the world of work through work experience and seminars, becoming familiar with an office or medical office career, applying principles and theories learned in classroom experiences, establishing learning outcomes and preparing related reports.
Prerequisite(s): EBE 100, OAD 246 or OAD 249, OAD 260 or OAD 256, approved co-op placement

## (PED) Physical Education

PED 101 Step Aerobics (1)
Warm-up exercises, strength and flexibility exercises, and cool down exercises. Knowledge of safe fitness techniques and benefits.
Prerequisite(s): None
PED 104 Beginning Karate (1)
Punching and kicking drills, takedown, self-discipline and control of hostile situations. History, philosophy and discipline used in Kenpo and Aikijitsu. Belt rank in karate optional at additional cost.
Prerequisite(s): None

PED 105 Intermediate Karate (1)
Intermediate level kicks, hand techniques, hand trapping and escapes. Knowledge of martial arts background. Belt rank in karate optional at additional cost.
Prerequisite(s): PED 104 or equivalent experience as determined by instructor

PED 117 Beginning Weight Training (1)
Correct weight training procedures, proper handling of equipment, training principles, composition of an individual total workout program and dietary effects.
Prerequisite(s): None
PED 118 Intermediate Weight Training (1)
Intermediate level of free weight training. Setting up a personal program. Safety and nutrition information.
Prerequisite(s): PED 117
PED 144 Beginning Tennis (1)
Forehand drive, backhand drive, volleying, serving and footwork. History, rules, terms, scoring, simple strategies and the etiquette of tennis.
Prerequisite(s): None
PED 145 Intermediate Tennis (1)
Advanced skills in forehand, backhand shots and serving.
$\boldsymbol{\sim}$ Approach shots, net play, backhand game, drop and chop shots. Advanced rules, strategies and tennis etiquette.
Prerequisite(s): None
PED 151 General Physical Conditioning (1)
む Principles and benefits of physical conditioning, warm-up/ stretching exercises, aerobic and strength exercises (walking, jogging, rope skipping, stationary biking, weight training), flexibility exercises and cool down exercises.
Prerequisite(s): None
PED 153 Yoga for Beginners (1)
Reducing stress through focused breathing and relaxation exercises using meditation techniques. Graded S/U.
Prerequisite(s): None
PED 154 Yoga II (1)
Using Yoga and meditation techniques to reduce stress.
Prerequisite(s): PED 153 Yoga for beginners
PED 160 Beginning Basketball (0)
Shooting, passing, dribbling and defense along with game play. Includes equipment, rules, terms, scoring and etiquette of basketball.
Prerequisite(s): None
PED 162 Intermediate Basketball (0)
Shooting, passing, dribbling and defense along with game play. Includes equipment, rules, terms, scoring and etiquette of basketball.
Prerequisite(s): None

PED 171 Beginning Golf (1)
Driving, putting, chipping and pitching along with fair play. Also includes the history, equipment, rules, terms, scoring and etiquette of golf.
Prerequisite(s): None
Lab Fee: \$20
PED 172 Intermediate Golf (1)
Refining basic strokes, practice techniques, the mental side of golf, course management, advanced short game instruction and bunker play. Additional history and etiquette.
Prerequisite(s): None
Lab Fee: \$20
PED 295 Introduction to Baseball/Softball Officiating (1)
Development of knowledge and skills to become certified baseball and softball officials. Includes scorebook keeping, game techniques and supervised experience.
Prerequisite(s): CPE 061
Lab Fee: $\$ 12$

## (PGR) Personal Growth

PGR 150 Personal Growth (3)
Designed to provide students with an opportunity to examine themselves--their abilities, attitudes, interests, learning styles, personality traits and values to improve self-awareness and self-confidence.
Prerequisite(s): None
PGR 153 College Survival Skills (3)
Fundamentals of becoming a successful student. A reading, writing and study skills course designed to lessen the anxiety of new or returning college students.
Prerequisite(s): None
Lab Fee: $\$ 9$
PGR 154 Reading for Speed and Comprehension (3)
This course improves both reading speed and comprehension, is intended for students of average or above average reading abilities and uses a variety of methods, including computeraided instruction.
Prerequisite(s): CPE 062 or appropriate Compass score

## PGR 191 Study Skills (1)

This course is designed to offer students the opportunity to foster self-confidence in problem solving. The process includes: a self-assessment of certain personal skills required for success in college, a determination of need for change and the development of a goal to facilitate a successful outcome. Graded S/U.
Prerequisite(s): None
Lab Fee: $\$ 9$
PGR 192 Career Directions (1)
Overview of career choice processes and exploration of career alternatives and career decision making. Includes: researching career information, career decision making, reviewing occupational options, information sharing and educational planning. Graded S/U.
Prerequisite(s): None
Lab Fee: $\$ 9$

PGR 194 Stress Management (1)
Identify stressors and manage stress in daily life. Individual stress assessment, cognitive-affective-physical techniques for stress management, stress in society, stress in the workplace, health and stress and personal and community resources. Graded S/U.
Prerequisite(s): None
PGR 195 Campus Leadership (1)
Practical approach to student leadership situations to increase technical skills involved in campus organizations. Graded S/U.
Prerequisite(s): None

## PGR 196 Effective Parenting (1)

Information and skills to meet the difficult challenges of raising children. Includes: discipline, communication, problem-solving and encouragement. Graded S/U.
Prerequisite(s): None
PGR 197 Building Positive Personal Relationships (1)
Information and skills that help create positive and successful personal relationships, as well as those qualities that make personal relationships endure. Graded S/U.
Prerequisite(s): None
PGR 250 Exploring Our Sexualities (3)
Analysis of the impact of social and cultural values and norms on human sexuality.
Prerequisite(s): None
Corequisite(s): ENG 111

## (PHL) Philosophy

PHL 110 Problems in Philosophy (3)
Introduction to the philosophical method. A critical survey of arguments from various philosophical perspectives that have been offered as solutions to probelms concerning the nature of reality, God's existence, the nature of mind, the nature and sources of knowledge and the nature of moral value.
Prerequisite(s): CPE 071 or appropriate COMPASS score Corequisite(s): ENG 111

## PHL 111 Problems in Philosophy: Honors (3)

Honors-level introduction to the philosophical method. A critical survey of arguments from various philosophical perspectives that have been offered as solutions to problems concerning the nature of reality, God's existence, the nature of mind, the nature and sources of knowledge and the nature of moral value. Writing intensive. Students may not take both PHL 110 and PHL 111 for credit toward graduation. Prerequisite(s): ENG 112

## PHL 200 Critical Thinking (3)

Introduction to basic reasoning skills: the student learns to distinguish knowledge from belief and truth, evaluate relevant information, identify assumptions, detect biased and fallacious reasoning, identify, anaylze and evaluate basic inductive and deductive arguments.
Prerequisite(s): CPE 071 or appropriate COMPASS score Corequisite(s): ENG 111

PHL 205 Deductive Logic (3)
Formal methods for determining the validity of deductive arguments; construction of truth tables, sentential proofs and Venn diagrams.
Prerequisite(s): CPE 071 or appropriate Compass score Corequisite(s): ENG 111

## PHL 210 Ethics (3)

Philosophical analysis of the predominant ethical theories from various cultures. Application of these theories from various cultures. Application of these theories to contemporary moral problems such as capital punishment, abortion, euthanasia, racism and same-sex marriage in order to develop a method for approaching moral concerns.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
PHL 220 Business Ethics (3)
Application of philosophical analysis and ethical theories to the moral problems arising from the world of business such as the morality of capitalism, corporate responsibility, the morality of advertising, drug testing, business's responsibility to the environment and the moral dimension of information technology. Discussion of how moral values affect, and are affected by, business institutions and practices.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
PHL 230 Medical Ethics (3)
Application of philosophical analysis and ethical theories to the moral problems arising from modern medical care such as abortion, patients' rights, euthanasia and experimentation with human subjects and ethics of cloning. Discussion of how moral values affect, and are affected by, medical and biological knowledge and practice.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

## PHL 240 Philosophy of World Religions (3)

Philosophical analysis of the basic beliefs of the major world religions including: Hinduism, Buddhism, Confucianism, Daoism, Judaism, Christianity and Islam. Topics may include: the concepts and existence of religious reality: God, Brahaman, Dao and the Void; grounds for belief and disbelief; science and religion; revelation and faith; religious language; miracles; the problems of evil; resurrection; karma; and reincarnation.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

## PHL 250 Great Books: Philosophy (3)

Critical investigation of selected great books chosen from each of the three periods of the Western philosophical tradition: ancient/medieval, modern and contemporary written by such philosophers as Plato, Aquinas, Descartes, Hume, Kant, Russell, Sartre and Wittgenstein.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

## (PHO) Photography

PHO 111 Photography I (3)
An introductory course in the fundamentals of 35 mm photography and the black and white darkroom.
Prerequisite(s): CPE 061
Lab Fee: \$25
PHO 112 Photography 11 (3)
Continuation of Photography I. Emphasis on photography as a tool. Required use of medium-format camera and darkroom.
Prerequisite(s): PHO 111
Lab Fee: \$25
PHO 121 Color Photography I (3)
An introductory course using 35 mm cameras, color negative/ positive films and the fundamentals of color developing and printing.
Prerequisite(s): PHO 111
Lab Fee: \$25
PHO 122 Color Photography II (4)
A continuation of Color Photography I. Emphasis placed upon 35 mm format photography. Color negative materials will be processed and scanned into digital format and present
as a color slide presentation.
Prerequisite(s): PHO 121
Lab Fee: \$25
PHO 124 Photography Porffolio (4)
Selection and presentation of photographs for your personal portfolio. All material will be reviewed and corrections made by processing and printing of color materials.
Prerequisite(s): PHO 112, PHO 121
PHO 130 Digital Photography I (3)
An introductory course in the fundamentals of digital photography which would include the basics in digital camera operation and downloading the finished product to a computer. Additonal time will be spent learning the affiliated software to finish the photographs.
Prerequisite(s): CPE 061 or appropriate Compass score Lab Fee: \$25

PHO 131 Digital PHotography II (3)
A continuation of digital photography basics to include photographing techniques such as lighting and depth of field. The software used in this course will allow the student to manipulate the photograph into a finished product.
Prerequisite(s): PHO 130
Lab Fee: $\$ 25$
PHO 180 Photography Practicum (3)
Includes assignment to photographic business establishment to perform functions of that business. Supervision by business professionals.
Prerequisite(s): PHO 112, PHO 124, PHO 121, CRJ 118 Corequisite(s): PHO 122

## (PHY) Physics

PHY 105 Fundamentals of Scientific Methods and Problem Solving (3)
Measurement and use of units appropriate to length, area and volume, mass and density. Unit conversions, development of mathematical relationships from laboratory situations, manipulation of variables and experimental design, process of science (scientific method).
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): CPE 071
Lab Fee: \$15

## PHY 110 Fundamentals of Physics (5)

Concepts in physics for students with no previous physics or science background. Scientific method, systems of units, vectors, mechanics, properties of matter, heat, sound, electricity, and light. Laboratory component incorporates computer-assisted data gathering and analysis.
Prerequisite(s): CPE 101 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
Lab Fee: $\$ 15$
PHY 111 Physics 1 (4)
Mechanics; accelerated motion; work, energy, and power; conservation of energy and momentum; static equilibrium; mechanical properties of matter, stress, and strain.
Prerequisite(s): CPE 071 or appropriate Compass Score and PHY 110, ENT 101, MTH 120 or MTH 121
Corequisite(s): MTH 140 and ENG 111
Lab Fee: $\$ 15$
PHY 112 Physics II (4)
Fluids, waves, heat, and optics; fluid mechanics; elasticity, harmonic motion and waves; temperature, thermal effects, gas laws, heat transfer and basic thermodynamics; reflection, refraction, mirrors and lenses; selected topics in modern physics.
Prerequisite(s): CPE 071 or appropriate Compass score and PHY 111, MTH 140
Corequisite(s): ENG 111
Lab Fee: $\$ 15$
PHY 113 Physics III (4)
Electricity and magnetism; electrostatics, charge and potential; direct current circuits; Ohm's law, electromotive forces, series and parallel circuits; capacitance; electromagnetism, magnetic forces, induced currents; alternating currents.
Prerequisite(s): CPE 071 or appropriate Compass score and PHY 112, MTH 140
Corequisite(s): ENG 111
Lab Fee: $\$ 15$
PHY 120 Astronomy (4)
An introduction to Astronomy; astronomical terminology, origins and composition of our universe and solar system, planetary features and the quest to find other life forms in our universe.
Prerequisite(s): CPE 071 or appropriate Compass score and Satisfactory score on math placement test
Corequisite(s): ENG 111
Lab Fee: \$40

PHY 250 General Physics I (6)
The fundamentals of statics, kinetics, dynamics, work and energy, momentum, rotation, oscillations, gravity and fluids. Introduction of calculus in interpreting physical phenomena.
Prerequisite(s): Appropriate Compass score PHY 110 or PHY 111
Corequisite(s): ENG 111 and MTH 221
Lab Fee: \$15

## PHY 251 General Physics II (5)

Continuation of General Physics I covering electrostatics, capacitance, DC circuits, magnetism, electromagnetic waves and AC circuits. Use of calculus in interpreting physical phenomena.
Prerequisite(s): ENG 111 and PHY 250
Corequisite(s): MTH 222 and ENG 112
Lab Fee: \$15

## PHY 252 General Physics III (5)

Continuation of General Physics II covering wave motion, heat, laws of thermodynamics, kinetic theory, electromagnetic waves, geometrical optics, interference and diffraction. Use of calculus in interpreting physical phenomena.
Prerequisite(s): PHY 251
Corequisite(s): MTH 223
Lab Fee: \$15

## (PLS) Political Science

PLS 110 American National Government (3)
Basic concepts and structure of national government, focusing on checks and balances, federalism, civil rights and liberties, political parties, elections, interest groups, media, political institutions and public policy.
Prerequisite(s): CPE 061 or appropriate Compass score
Corequisite(s): CPE 071

## PLS 120 American Issues (3)

Exploration of political and social issues in Government. Historical documents reveal the dynamics of living in America.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111

## PLS 130 Political Issues (3)

Nature and uses of political power in contemporary life, focusing on power relationships in public issues, such as crime and violence; poverty; ecology; budget choices; federalism; racism and sexism; urban affairs; defense and arms control; and ideological conflicts.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111

## PLS 220 Constitutional Law (3)

A broad understanding of the American Federal Constitution dealing largely with civil rights, voting rights, and basic freedoms as drawn from the first and fourteenth amendments.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

PLS 230 International Politics (3)
Introduction to the international political system including state and non state actors, conflict roots, approaches to peace-keeping and current issues.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

## (PSY) Psychology

## PSY 111 Psychology I (3)

An introduction to the fundamental principles and practices of psychology. Includes theories and methods, biological factors influencing behavior, learning, memory, thinking, intelligence, language, human development and personality.
Prerequisite(s): CPE 061 or appropriate Compass score Corequisite(s): CPE 071

## PSY 112 Psychology 11 (3

An introduction to the fundamental principles and practices of psychology continued. Includes sensation and perception, states of consciousness, motivation, emotion, stress, social behavior and abnormal behavior. This is not a general education elective for students seeking technical degrees.
Prerequisite(s): CPE 071 or appropriate Compass score and PSY 111
Corequisite(s): ENG 111

PSY 221 Human Growth and Development I (3)
Biological, intellectual, social and personality development from conception through adolescence. This is not a general education elective for students seeking a technical degree.
Prerequisite(s): PSY 111 and ENG 111
Corequisite(s): ENG 112

PSY 222 Human Growth and Development II (3)
Biological, intellectual, social and personality development from early adulthood through old age. This is not a general education elective for students seeking a technical degree.
Prerequisite(s): PSY 221
PSY 223 Lifespan Human Growth and Development (5)
A lifespan study of the biological, intellectual, and psychosocial development of human beings and the issues surrounding these developments.
Prerequisite(s): PSY 111, ENG 111
Corequisite(s): ENG 112
PSY 230 Abnormal Psychology (3)
Overview of facts and theories pertaining to abnormal behavior. Includes classifications, diagnoses, causes and treatments of abnormal behavior. Includes schizophrenia, and the following disorders: anxiety, mood, dissociative, eating, personality, sexual, brain and childhood disorders.
Prerequisite(s): PSY 111 and ENG 111
Corequisite(s): ENG 112

## (PTA) Physical Therapist Assistant

PTA 110 PTA Survey (3)
Introduction to the role and scope of physical therapist assistant practice. Legal and ethical accountability. History of the PT and professional organizations. Health delivery systems. Introduction to interpersonal communication skills, cultural diversity, disability awareness and professional behavior.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
PTA 120 Introduction to Patient Management (2)
Introduction and practice of basic therapeutic procedures: body mechanics, vital signs, infection control, goniometry, manual muscle testing; verbal and written communication; professional behavior.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score, instructor permission
Corequisite(s): ENG 111
Lab Fee: $\$ 10$
PTA 145 PTA Procedures I (4)
Continuation of goniometry and manual muscle testing for all joints. Introduction to therapeutic exercise. Documentation. Professional behavior development.
Prerequisite(s): BIO 102, BIO 118, BIO 121, PTA 110, PTA 120
Corequisite(s): BIO 122, BIO 230, PSY 111
Lab Fee: \$10

PTA 146 PTA Procedures 11 (5)
Application of heat and cold, massage and traction. Pathology, data collection and PT intervention for cardiopulmonary, lymphatic, immune, endocrine/metabolic integumentary, gastrointestinal, genitourinary and respiratory disorders; positioning, wheelchair mobility, transfers. Professional behavioral development.
Prerequisite(s): BIO 122, BIO 230, PTA 145 and ENG 111
Corequisite(s): PTA 160, ENG 112, BIO 123
Lab Fee: $\$ 25$
PTA 160 PTA Rehabilitation 1 (6)
Pathology and rehabilitation for orthopedic and musculoskeletal disorders; positioning, transfers and gait training. Professional behavioral development.
Prerequisite(s): BIO 122, BIO 230, PTA 145 and ENG 111
Corequisite(s): BIO 123, PTA 146 and ENG 112
Lab Fee: $\$ 10$
PTA 241 PTA Procedures III (5)
Physical agents including E-stim, hydrotherapy, diathermy, ultrasound, TENS, MENS, phonophoresis, iontophoresis. Integumentary system and wound care. Theories of pain. Continuation of professional development.
Prerequisite(s): PTA 146, PTA 160
Lab Fee: $\$ 30$
Certification Fee: \$35

PTA 245 PTA First-Year Capstone (1)
Capstone presentation of core physical therapy skills previously demonstrated throughout the first year of the PTA program; includes goniometry, manual muscle testing, wheelchair mobility, transfers, gait training, exercise design and clinical reasoning.
Prerequisite(s): PTA 110, PTA 120, PTA 145, PTA 146, PTA 160
Corequisite(s): PTA 241

## PTA 260 PTA Rehabilitation II (6)

Normal motor development and motor control. Neurological pathology. Rehabilitation following neurological pathology. Continuation of professional development.
Prerequisite(s): PTA 146, PTA 160, PTA 241, PSY 221, PSY 222
Corequisite(s): PTA 281, PTA 291
Lab Fee: \$10
Certification Fee: \$35
PTA 265 PTA Rehabilitation III (6)
Adult orthopedic and neurological impairments requiring advanced treatment concepts. Pediatric impairments and rehabilitation. Prosthetics, orthotics, adaptive seating. Chronic pain. Environmental assessment. Continuation of professional development.
Prerequisite(s): PTA 260
Corequisite(s): PTA 282, PTA 292
Lab Fee: $\$ 10$
Certification Fee: $\$ 35$
PTA 270 PTA Trends and Issues (2)
Current trends in practice. Health care financing. Interpersonal communications. Contracts. Supervisory/management skills. Ethical issues. Continuation of professional development. Prerequisite(s): PTA 110, PTA 281, PTA 291
Corequisite(s): PTA 282, PTA 292
Certification Fee: $\$ 35$
PTA 281 Directed Practice I (3)
Application of knowledge and skills for physical therapist assistants at a beginning level; supervised experiences in selected agencies. Students will be assessed in skills using the Clinical Performance Instrument, by Clark State faculty observation of clinical performance, and through discussion with the clinical faculty.
Prerequisite(s): PTA 241
Corequisite(s): PTA 260, PTA 291
Student Liability Insurance: $\$ 20$
Certification Fee: \$35

PTA 282 Directed Practice II (3)
Application of knowledge and skills for the physical therapist assistant at a developing to progressively developing level as appropriate to previous and current clinical experience; supervised experiences in selected agencies. Students will be assessed in skills using the Clinical Performance Instrument, by Clark State faculty observation of clinical performance, and through discussion with the clinical faculty.
Prerequisite(s): PTA 260, PTA 281, PTA 291
Corequisite(s): PTA 265, PTA 292
Certification Fee: \$35

PTA 283 Directed Practice III (6)
Application of knowledge and skills for the physical therapist assistant at entry level as appropriate for student's previous and current clinical experiences; supervised experiences in selected agencies. Students will be assessed in skills using the Clinical Performance Instrument, by Clark State Faculty observation of clinical performance and through discussion with the clinical faculty.
Prerequisite(s): PTA 282, PTA 292,
Corequisite(s): PTA 293
Certification Fee: \$35

PTA 291 Seminar I (2)
Discussion of clinical situations and problem solving; focus on self-evaluation; understanding the work setting and client, coworker behaviors, related to Directed Practice I; select topics.
Prerequisite(s): None
Corequisite(s): PTA 281
Certification Fee: \$35
PTA 292 Seminar II (2)
Discussion of clinical situations and problem solving; focus on self-evaluation; understanding the work setting and client/coworker behaviors, related to Directed Practice II; select topics.
Prerequisite(s): PTA 291
Corequisite(s): PTA 282
Certification Fee: \$35

PTA 293 Seminar III (2)
This course is a companion course to PTA 283, and serves to assess students' readiness to enter the field of physical therapy at entry level based on student responses to simulated clinical situations. Students will present a Capstone Portfolio that encompasses didactic and clinical information collected throughout the clinical experiences. The students will also demonstrate the ability to utilize knowledge and skills learned and developed over the course of the PTA program by presenting a Capstone project.
Prerequisite(s): PTA 292
Corequisite(s): PTA 283
Lab Fee: \$30
Certification Fee: $\$ 35$

## (RCC) Realtime Closed Caption

RCC 110 Introduction to the Deaf Community (4)
An overview of the Deaf community and its social, cultural and educational experiences. Introduction to American Sign Language as used in the United States and parts of Canada, the myths and misconceptions of the Deaf community. and local services available to the Deaf community.
Prerequisite(s): CPE 061 or DPE 061

## RCC 221 Captioning/CART I (2)

Introduction to realtime captioning/CART skill including using captioning software, building and managing dictionaries and finger spelling.
Prerequisite(s): RTR 108 (formerly RTR 102) with C a or better grade; RTR 111, RTR 131
Lab Fee: $\$ 15$

RCC 222 Captioning/CART II (2)
Continued development of realtime captioning/CART skills, which include using captioning software, building and managing dictionaries and finger spelling.
Prerequisite(s): RCC 211 AND RTR 201 at 120 wpm Lab Fee: \$15

RCC 223 Captioning/CART III (2)
Advanced realtime captioning/CART skills, which include using captioning software, building and managing dictionaries and finger spelling. Expanded use of the Clark State captioning studio.
Prerequisite(s): RCC 212 and RTR 202 at 140 wpm Lab Fee: \$15

RCC 231 Captioning/CART Speed Building I (1)
Development of writing skills in two- and multi-voice dictation, including readback and analysis of shorthand notes, realtime writing and quality practice habits. Encompasses speeds ranging from $120-180 \mathrm{wpm}$.
Prerequisite(s): RTR 108, RTR 112
Lab Fee: \$15

RCC 232 Captioning/CART Speed Building II (1)
Development of writing skills in two-and multi-voice dictation, including readback and analysis of shorthand notes, realtime writing and quality practice habits. Encompasses speeds ranging from 140-200 wpm.
Prerequisite(s): RCC 231
Lab Fee: \$15

RCC 233 Captioning/CART Speed Building III (1)
Development of writing skills in two-and multi-voice dictation, including readback and analysis of shorthand notes, realtime writing and quality practice habits. Encompasses speed ranging from $160-225 \mathrm{wpm}$.
Prerequisite(s): RCC 232
Lab Fee: \$15
RCC 245 Business Practices (2)
Overview of broadcast captioning and CART including but not limited to the psychology of on-air captions, FCC regulations, broadcast news production, prescripting, the CART Provider's Manual, Guidelines for Professional Practice and the Americans with Disabilities ACT (ADA).
Prerequisite(s): CPE 101, RCC 211, RTR 201
RCC 280 Captioning: The Professional Experience (0.5)
Broadcast captioning practice with a minimum of 40 hours in the broadcast studio, or other approved activity.
Prerequisite(s): RCC 212, RCC 245, RTR 202; working speed of 180 wpm

RCC 281 CART: The Professional Experience (0.5)
CART practice with a minimum of 40 hours in the classroom or other approved activity.
Prerequisite(s): RCC 212, RCC 245, RTR 202; working speed of 180 wpm

## (RES) Real Estate Principles

RES 232 Real Estate Principles (4)
Basic course in real estate with focus on Ohio regulations, principles and practices. Introduction to the nature of real property, rights and interests in land and ownership. Guidelines and operations for the real estate professional.
Prerequisite(s): CPE 061
RES 235 Real Estate Law (4)
An overview of several basic areas of law relating to the real estate profession. Includes law of contracts, agency, and civil rights. Develops a working knowledge of documents including deeds, mortgages, and listing and purchase agreements.
Prerequisite(s): CPE 061
RES 240 Real Estate Appraisal (2)
Survey course of real estate appraisal. Practical application of principles. Techniques of real estate appraisal using the methods of cost, sales comparison and income capitalization. Appraisal process and factors that influence the value of real estate. Primary focus on single-family residential property. Some aspects of residential and commercial income producing properties.
Prerequisite(s): CPE 061
RES 245 Real Estate Finance (2)
A study of real estate finance as it pertains to the financing of real estate in both primary and secondary markets.
Prerequisite(s): CPE 061

## (RJR) Realtime Judicial Reporting

RJR 211 Advanced Testimony I (3)
Development of writing skills in two- and multi-voice dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. This course encompasses speeds ranging from 120-180 wpm. Prerequisite(s): RTR 112
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: \$15
RJR 212 Advanced Testimony II (3)
Continued development of writing skills in two- and multi-voice dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. This course encompasses speeds ranging from 140-200 wpm.
Prerequisite(s): RJR 211
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: \$15
RJR 213 Advanced Testimony III (3)
Continued development of writing skills in two- and multi-voice dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. Successful completion of this course requires that the student demonstrate the terminal speed skill of 225 wpm at 95 percent accuracy. Must be completed within 12 months prior to graduation.
Prerequisite(s): RJR 212
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: \$15

RJR 231 Jury Charge I (3)
Development of writing skills in jury charge dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. This course encompasses speeds ranging from 100-160 wpm.
Prerequisite(s): RTR 108 or RTR 102
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: \$15
RJR 232 Jury Charge II (3)
Continued development of writing skills in jury charge dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. This course encompasses speeds ranging from 120-180 wpm. Prerequisite(s): RJR 231
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: $\$ 15$

## RJR 233 Jury Charge III (3)

Continued development of writing skills in jury charge dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. Successful completion of this course requires that the student demonstrate the terminal speed skill of 200 wpm at 95 percent accuracy. Must be completed within 12 months prior to graduation.
Prerequisite(s): RJR 232
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: \$15

## RJR 245 Office Management (3)

Role of the realtime reporter in trials, depositions and administrative hearings; overview of transcript preparation and production; development of office management skills; resume preparation and the interview process; professional development in dress and conduct; involvement in professional associations and appreciation of continuing education.
Prerequisite(s): CPE 101, RJR 211
Corequisite(s): RTR 132
RJR 280 Judicial Reporting: The Professional Experience (1) Judicial reporting practice in both the official and freelance areas, with a minimum of 40 writing hours in each.
Prerequisite(s): RTR 132, RJR 212, RJR 232, RJR 245, RTR 202

## (RST) Regional Studies

RST 260 Regional Studies of Asia - China (3)
An introduction to the land, history, social institutions, art, literature, and philosophical/religious institutions of China.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
RST 262 Regional Studies North India (3)
An introduction to the land, people, history, politics, social institutions, literature, and the philosophical and religious heritage of India.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

RST 270 Regional Studies of Africa (3)
An introduction to the land, people, history, politics, social institutions, economic development, literature and the arts of Africa.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
RST 280 Regional Studies of Latin America (3)
An introduction to the land, people, history, politics, social institutions, economic development, literature and the arts of Latin America.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112

## (RTR) Realtime Reporting

RTR 105 Realtime Theory (7)
Writing, reading and translating the spoken word by means of a conflict-free realtime theory. Emphasis on mastery of machine shorthand principles, speed development of 60 wpm on dictation of familiar material and rapid and accurate reading of notes.
Prerequisite(s): DEV 061 or CPE 061
Lab Fee: $\$ 15$

## RTR 106 Realtime Theory Reinforcement (2)

Reinforcement of computer shorthand realtime theory principles. Development of readback skills. Development of quality practice-session techniques.
Prerequisite(s): RTR 105
Corequisite(s): RTR 107

## RTR 107 Beginning Speed Building I (3)

Development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Live classroom dictation on both new and familiar material. This course encompasses speeds ranging from 60-120 wpm.
Prerequisite(s): RTR 105 or RTR 100
Corequisite(s): RTR 152
Lab Fee: \$15

## RTR 108 Beginning Speed Building II (3)

Continued development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Live classroom dictation on both new and familiar material. The course encompasses speeds ranging from 80-140 wpm.
Prerequisite(s): RTR 107
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: \$15

## RTR 110 Survey of Realtime Reporting (1)

An overview of the opportunities available in the field of realtime reporting, including the skills and knowledge required, professional organizations and the ethics of realtime reporting. Areas of discussion will include: Judicial Reporting, Official Reporting, Freelance Reporting, Closed Captioning, CART, Medical Transcription, Data Entry, NCRA, OCRA, NCRA Code of Professional Ethics, Certifications, continuing Education Units (CEU'S), and Life-long Learning. Prerequisite(s): DEV 061 or CPE 061

RTR 111 Beginning Testimony I (3)
Development of skill in writing question-and-answer dictation with emphasis on speeds ranging from 80-120 wpm.
Prerequisite(s): RTR 101 or RTR 107
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: $\$ 15$

RTR 112 Beginning Testimony II (3)
Development of skill in writing question-and-answer dictation with emphasis on speeds ranging from 100-160 wpm.
Prerequisite(s): RTR 111
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: $\$ 15$
RTR 120 Law and Legal Terminolgy (2)
Overview of the judicial system and the legislative process with emphasis on legal terminology as applied in civil and criminal law.
Prerequisite(s): RTR 100 or RTR 105
Lab Fee: $\$ 15$
RTR 125 Vocabulary/Reference Use (2)
Techniques for using the dictionary, thesaurus, online references, prefixes, suffixes, synonyms, possessives and word pairs.
Prerequisite(s): DEV 061 or CPE 061
RTR 131 Beginning Computer Assisted Transcription (3)
Principles of transcript production using computer-aided transcription software (CATalyst4).
Prerequisite(s): RTR 105 or RTR 100
Lab Fee: $\$ 25$

RTR 132 Advanced Computer Assisted Transcription (3)
Advanced principles of transcript production using Case CATalyst4 computer-assisted translation software.
Prerequisite(s): RTR 131
Lab Fee: \$25

RTR 150 Realtime Transcription (1)
Supervised transcription of two, speed-dictation tests per week taken as prescribed in a concurrent speed course(s). Transcription must be completed within the 70 minutes immediately following the recorded dictation. Comparison of student transcript with hard copy of test dictation as a tool for reviewing vocabulary, grammar, spelling and punctuation as well as to analyze speed growth and accuracy.
Prerequisite(s): CPE 061
Lab Fee: $\$ 15$
RTR 151 Realtime Transcription (1)
Supervised transcription of one speed dictation test per week taken as prescribed in a concurrent speed course. The transcription must be completed within the 70 minutes immediately following the recorded dictation. Comparison of student transcript with a hard copy of test dictation as a tool for reviewing vocabulary, grammar, spelling and punctuation as well as to analyze speed growth and accuracy.
Prerequisite(s): DEV 061or CPE 061 and RTR 105
Corequisite(s): RTR 107 or 108 OR RTR 111 or 112 OR RTR 201 or 202 or 203 OR RJR 211 or 212 or 213 OR RJR 231 or 232 or 233
Lab Fee: $\$ 15$

RTR 152 Realtime Transcription (2)
Supervised transcription of two speed dictation tests per week taken as prescribed in a concurrent speed course(s). The transcription must be completed within the 70 minutes immediately following the recorded dictation. Comparison of student transcript with a hard copy of test dictation as a tool for reviewing vocabulary, grammar, spelling and punctation as well as to analyze speed growth and accuracy.
Prerequisite(s): DEV 061 or CPE 061 and RTR 105
Corequisite(s): RTR 107 OR two of the following: RTR 201/202/203 AND/OR RJR 211/212/213 AND/OR RJR 231/232/233
Lab Fee: $\$ 15$
RTR 153 Realtime Transcription (3)
Supervised transcription of three speed dictation tests per week taken as prescribed in a concurrent speed course(s). The transcription must be completed with the 70 minutes immediately following the recorded dictation. Comparison of student transcript with a hard copy of test dictation as a tool for reviewing vocabulary, grammar, spelling and punctuation as well as to analyze speed growth and accuracy.
Prerequisite(s): DEV 061 or CPE 061 and RTR 105
Corequisite(s): RTR 201 or 202 or 203 AND RJR 211 or 212 or 213 AND RJR 231 or 232 or 233
Lab Fee: $\$ 15$
RTR 201 Advanced Speed Building I (3)
Development of writing skills in advanced literary dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. This course encompasses speeds ranging from 100-150 wpm.
Prerequisite(s): RTR 108 or RTR 102
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: \$15
RTR 202 Advanced Speed Building II (3)
Continued development of writing skills in advanced literary dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. The course encompasses speeds ranging from 120-160 wpm. Prerequisite(s): RTR 201
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: $\$ 15$

RTR 203 Advanced Speed Building III (3)
Continued development of writing skills in advanced literary dictation, including readback and analysis of shorthand notes, proofreading skills and quality practice habits. Successful completion of this course requires that the student demonstrate terminal speed skills of 180 wpm at 95 percent accuracy (Judicial) or 180 wpm at 96 percent accuracy (Captioning/CART). Must be completed within 12 months prior to graduation.
Prerequisite(s): RTR 202
Corequisite(s): RTR 151, RTR 152, or RTR 153
Lab Fee: $\$ 15$

## (SOC) Sociology

SOC 110 Sociology (3)
Social theory, methodology, and principles to provide a framework to study culture, socialization, stratification and deviance.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
SOC 140 Marriage and the Family (3)
Historical and cross cultural examination of marriage and family practices.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
SOC 220 Comparing Cultures (3)
The comparing and contrasting of several non-western world cultures with focus on family organizations, foodgetting, social stratification, economics, religion, the arts and change.
Prerequisite(s): ENG 111 and SOC 110
Corequisite(s): ENG 112
SOC 230 Social Problems (3)
This course will build on a general understanding of contemporary causes, treatment and prevention of social problems within the United States. Students will advance and deepen the understanding of social problems, and proposed solutions, through the lenses of three sociological theories: Structural Functional, Conflict and Symbolic Interaction. Students will assess, debate and critically analyze proposed solutions to social problems such as mental illness, inadequate health care, illegal immigration, substance abuse, violence, inequality, family dysfunction and aging.
Prerequisite(s): SOC 110 and ENG 111
Corequisite(s): ENG 112
SOC 240 Racial and Cultural Minorities (3)
Racial, ethnic, and religious diversity in the United States, focusing on a sociological examination of Afro-Americans, Native Americans, religious and regional minorities and women.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
SOC 250 Sociology of Poverty: Feminization of Poverty (3)
Examine the diverse nature of poverty within the United States from a variety of sociological perspectives. Topics covered will focus on the cultural perspective of poverty as it relates to stratification and social class, including: historical trends of poverty, homelessness, families in poverty, feminization of poverty, racialization of poverty and proposed poverty reducing strategies.
Prerequisite(s): SOC 110 and ENG 111

## (SPN) Spanish

SPN 100 Conversational Spanish I (3)
Understanding and speaking in conversational settings at the beginning level, using knowledge of Spanish-speaking cultures. May not be taken for credit toward graduation if the student has completed SPN 111, 112, 113 or any other first or second-year Spanish course.
Prerequisite(s): CPE 061
SPN 102 Conversational Spanish II (3)
Continuation of SPN 100. Understanding and speaking in conversational settings at the early intermediate level. Acquiring oral skills and knowledge of Spanish speaking cultures at the intermediate low level. SPN 102 may be taken for graduation credit only if the student has not completed SPN 111, 112, 113 or any other Spanish course except SPN 100.
Prerequisite(s): SPN 100 or instructor permission Corequisite(s): No

SPN 111 Spanish 1 (4)
Study of the vocabulary and structure of the Spanish language; practice in conversation, reading and writing.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
SPN 112 Spanish II (4)
Further study of the vocabulary and structure of the Spanish language; practice in conversation, reading and writing. Prerequisite(s): SPN 111

## SPN 113 Spanish III (4)

Further study of the vocabulary and structure of the Spanish language; practice in conversation, reading and writing.
Prerequisite(s): SPN 112 or SPN 120
SPN 120 Review of Beginning Spanish (4)
Intensive review of beginning-level Spanish vocabulary and structure. Course combines all vocabulary and present tense of Spanish 111 with all vocabulary and past verb tenses of Spanish 112. Practice in writing, reading, speaking and listening. Spanish is the primary language for the course. Prerequisite(s): Students must NOT have previously taken SPN 111 or SPN 112 at CSCC within the past six years. Student must have some knowledge of basic Spanish to enter the course.
Corequisite(s): Knowledge equivalent to SPN 111 and SPN 112.

## SPN 211 Spanish IV (4)

Grammar review, reading and discussion of selected texts with practice in speaking and writing the language.
Prerequisite(s): SPN 113
SPN 212 Spanish V (4)
Further grammar review, reading and discussion of selected texts with practice in speaking and writing the language. Prerequisite(s): SPN 211

## (STT) Statistics

## STT 264 Statistics 1 (4)

Introduction to statistical techniques and methodology, including terminology, descriptive statistics, data analysis, data relationships, elementary set theory, elementary probability, random variables, probability distributions and contingency tables; with a laboratory exploration of probabilistic and statistical concepts, production of computer-generated data presentations and compilation of routine statistical computations.
Prerequisite(s): CPE 101 or an appropriate score on the algebra placement test
Lab Fee: \$10

## STT 265 Statistics II (4)

Application of statistical techniques and methodology, including sampling theory, estimation, design of experiments, correlation and regression, hypothesis testing and analysis of variance; with a computer laboratory exploration of statistical concepts, computation of statistical parameters and analysis of statistical significance.
Prerequisite(s): STT 264
Lab Fee: \$10

## (SWK) Social Services

SWK 100 Introduction to Social Welfare and Social Work (4)
Historical overview of social welfare policies and social work profession. Etiology of social problems of minorities and outgroups. Explore feelings, beliefs, values and readiness to make a committent to social work.
Prerequisite(s): CPE 061 or appropriate Compass score

## SWK 105 Chemical Dependency I:Pharm/Physiology of Psychoactive Substances (4)

Pharmacology of psychoactive substances including physiological and psychological effects and their propensity for addiction. Identification of basic treatment theories and treatment and prevention strategies in the field of addictions.
Prerequisite(s): CPE 061 or appropriate Compass score
SWK 121 Social Work Methods and Procedures (5)
Conceptual framework of generalist social work practice model. Creative problem solving, social work values, ethics and principles related to interventions with individuals, groups, organizations and communities. Exposure to differential theoretical perspectives.
Prerequisite(s): SWK 100, ENG 111, ITS 103, or instructor permission

SWK 130 Social Policy and Services (4)
Introduction to the social welfare policy process through history development and organization of social welfare and social work. Study evolution through contemporary and dated policy. Analyze and evaluate policy effectiveness. Effect of policy on population, particularly minorities. Understand forces that effect policy.
Prerequisite(s): SWK100, ENG 112, ITS 103 or instructor permission

SWK 136 Affective Education (4)
This course is designed for Health and Human Services majors to develop intrapersonal and interpersonal communication skills. The emphasis is on personal growth and development Prerequisite(s): SWK 100, ENG 111, ITS 103 or Instructor Permission

SWK 205 Chemical Dependency II:Counseling Techniques (4) Theories of addiction including identifying treatment and prevention models and strategies. Counseling procedures and strategies with addicted populations, including concepts and practices of assessment, diagnosis and treatment planning.
Prerequisite(s): ENG 111, SWK 105 or permission of instructor

## SWK 217 Chemical Dependency III: Special Populations (4)

Fundamental knowledge of issues in addiction treatments and prevention for various special populations. Identify effective counseling strategies in the treatment of addictions for populations including minorities, elderly, adolescents, infants, disabilities, corrections and dual-diagnosed individuals.
Prerequisite(s): SWK 205 or instructor permission
SWK 218 Social Work and Mental Health (3)
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History of treating mental illness; application of abnormal psychology; assessing mental illness with Diagnostic Statistical Manual (DSM); psychotropic medications and critiquing the role of the social worker.
Prerequisite(s): SWK 121, PSY 230, or permission of instructor

SWK 220 Social Service to Individuals with MR/DD (3)
Social work practice serving individuals with mental retardation/developmental disabilities (MR/DD). Etiology, social, ethical and political issues, services in education, training and life skills.
Prerequisite(s): SWK 121 or instructor permission
SWK 231 Generalist Practice/Crisis Intervention (3)
Generalist social work practice model applied to crisis and short term intervention and problem solving with families and individuals.
Prerequisite(s): SWK 121 or instructor permission
SWK 232 Generalist Practice with Family (3)
Generalist social work practice model with emphasis on families, social worker role, planning, goal setting and evaluation within a generalist model of intervention.
Prerequisite(s): Pre-req for SWK majors: SWK 121. Prereq for ECE majors ECE 102, SWK 136 or instructor permission

## SWK 236 Case Management (5)

Overview and application of generalist practice skills to perform case management assessment, planning, and implementation with high risk populations. In addition to class attendance, complete the entire case management process with assigned client.
Prerequisite(s): SWK 121 or permission of instructor

SWK 238 Social Work and Group Work (3)
Overview of history and development of group work, professional ethics, curative factors, stages of group development, theories of change, effective leadership characteristics.
Prerequisite(s): SWK 121 or permission of instructor
SWK 271 Social Services Practicum 1 (2)
One hundred and sixty (160) hour placement in local social service agency under professional supervision, development of professional social work skills, integration of social work theories and skill based training, professional social work documentation.
Prerequisite(s): SWK 121
Corequisite(s): SWK 291
Student Liability Insurance: \$20
SWK 272 Social Service Practicum II (2)
Continuation of SWK 271 with second 160-hour placement in local social service agency.
Prerequisite(s): SWK 121
Corequisite(s): SWK 292
SWK 273 Social Service Practicum III (2)
Continuation of SWK 272 with third 160-hour practicum in local social service agency.
Prerequisite(s): SWK 121
Corequisite(s): SWK 293
SWK 291 Social Service Seminar 1 (2)
This is the first of three courses designed to introduce and upgrade social work documentation skills. The course will also provide a forum for student shared learning and problem solving involving their practicum placements. Class assignments will integrate the practicum experience and social work theory in a classroom setting.
Prerequisite(s): SWK 121
Corequisite(s): SWK 271
SWK 292 Social Work Seminar II (2)
Continuation of SWK 291, documentation skills, social service field tours, agency guest speakers and student peer support.
Prerequisite(s): SWK 121
Corequisite(s): SWK 272
SWK 293 Social Work Seminar III (2)
Continuation of SWK 292, documentation skills, employability skills, ethical issues and student peer support.
Prerequisite(s): SWK 121
Corequisite(s): SWK 273
SWK 297 Special Topics (3)
Selected topic related to the practice of social work. Focus on topics will be on current trends, issues and social problems facing social workers and other social service professionals.
Prerequisite(s): None

## (THE) Theatre

THE 105 Oral Interpretation of Literature (3)
Introduction to the art of oral interpretation with emphasis on both poetry and prose.
Prerequisite(s): CPE 061
THE 107 Speech \& Voice for Actor (4)
Basic training and practice in the actor's use of voice and speech.
Prerequisite(s): CPE 061

## THE 111 Stagecraft I (4)

Focus on methods of scenery construction. Covers tools, materials, hardware and basic approaches to building scenery using hands-on experience to complement lectures.
Prerequisite(s): CPE 061
Lab Fee: \$20

## THE 112 Stagecraft II (4)

Continuation of Stagecraft I with special emphasis on construction of properties, scene painting techniques, special effects and installation.
Prerequisite(s): THE 111
Lab Fee: \$20
THE 115 Props, Wardrobe, Stage Makeup (3)
Focus on skills needed to work on props, wardrobe and makeup for the theatre.
Prerequisite(s): CPE 061
Lab Fee: \$25
THE 130 Introduction to Theatre (3)
The art of the theatre explored through the historical, literary and production perspectives.
Prerequisite(s): CPE 061
THE 150 Theatre Laboratory 1 (1)
Lab experience in performance, design, production, or management. Arranged around student's schedule. Open to all students but meets graduation requirements only for AA in Performing Arts or Technical Theatre students(maximum 6 credit hours). May be repeated.
Prerequisite(s): CPE 061 \& instructor permission

## THE 151 Theatre Laboratory 11 (2)

Lab experience in performance, design, production or management. Arranged around student's schedule. Open to all students, but meets graduation requirements only for AA in Performing Arts or Technical Theatre students(maximum 6 credit hours). May be repeated.
Prerequisite(s): CPE $061 \&$ instructor permission
THE 152 Theatre Laboratory III (3)
Lab experience in performance, design, production or management. Arranged around student's schedule. Open to all students, but meets graduation requirements only for AA in Performing Arts or Technical Theatre students. (maximum 6 credit hours). May be repeated.
Prerequisite(s): CPE 061 \& instructor permission

## THE 160 Acting for the Non-major (4)

Introduction to the art of acting for the non-major. Focus on acquainting non-acting students with the concepts and theory taught to acting students. Includes introduction to script analysis, acting theory, principles of text and character scoring. Not for students who enroll in THE 202 and 203.
Prerequisite(s): CPE 061
THE 166 Children's Thearre Production (4)
Survey and practical application of the production process for child audiences. Must be registered with the consent of theatre faculty.
Prerequisite(s): CPE 061 \& instructor permission
THE 202 Acting I (4)
Basic training and practice in vocal, physical, and creative processes used by the actor. Not for students who have enrolled in THE 160.
Prerequisite(s): CPE 061
THE 203 Acting II (4)
Continuation of Acting I, THE 202, with more emphasis on character/role development and scoring techniques.
Prerequisite(s): THE 202
THE 204 Acting III (4)
Continuation of the study of acting techniques examined in
Acting II, with additional emphasis on acting styles.
Prerequisite(s): THE 203

## THE 210 Lighting I (4)

Study of stage lighting techniques, practices, and equipment. Includes electrical theory and use of dimming systems.
Prerequisite(s): CPE 061
THE 211 Lighting II (4)
Continuation of Lighting I with greater emphasis on design and hands-on experience.
Prerequisite(s): THE 210
THE 220 Sound I (4)
Theory and practices in sound reinforcement and effects for indoor and outdoor stage. Audio equipment and systems; recording techniques and operation of sound for performance.
Prerequisite(s): CPE 061
THE 221 Sound II (4)
Continuation of Sound I with more emphasis on hands-on experience.
Prerequisite(s): THE 220
THE 230 Theatre Management (3)
Operation of college, community, and professional theatre. Includes organization, personnel, budgets, accounting, ticket sales, publicity and general procedures of house management.
Prerequisite(s): CPE 061
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THE 235 Stage Management (3)
Introduction to the duties and responsibilities of the stage manager. Includes documentation preparation for rehearsals and performances, and the development of organizational and interpersonal skills necessary to function successfully in a stage management capacity.
Prerequisite(s): CPE 061
THE 240 Basics of Theatre Design (4)
Preliminary concepts of stage, lighting, sound, and costume design. Covers history of theatrical presentation and motivation for design concepts.
Prerequisite(s): THE 211, THE 221, THE 270, THE 271
THE 270 Theatre History I (4)
Survey of the history and development of theatrical production from the Ancient Greeks through the Renaissance. Emphasis on play production rather than literature. Representative plays studied.
Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass score
Corequisite(s): ENG 111
THE 271 Theatre History II (4)
Survey of the history and development of theatrical production from the seventeenth century through the present. Emphasis on play production rather than literature. Representative plays studied.
Prerequisite(s): CPE 061 and CPE 071 or appropriate
은 Compass score
Corequisite(s): ENG 111
THE 280 Directing I (4)
Introduction to the art and techniques of directing for the stage, including visual story-telling, script analysis and working with actors.
Prerequisite(s): THE 111 or THE 202
THE 285 Co-op Education I (3)
The opportunity to relate studies to the world of work. Familiarity with a career in technical theater and application of the principles and theories learned in classroom experiences.
Prerequisite(s): EBE 100 and approved co-op placement

THE 286 Co-op Education II (3)
Valuable work experience. Continuation of Co-op Education I; an academic project is required.
Prerequisite(s): THE 285
THE 287 Co-op Education III (3)
Valuable work experience. Continuation of Co-op Education II; a more extensive academic project is required.
Prerequisite(s): THE 286
THE 288 Co-op Education IV (1)
Continuation of work experience, including an extensive academic project is required.
Prerequisite(s): THE 285
THE 289 Co-op Education V (2)
Continuation of work experience, including an academic project.
Prerequisite(s): THE 285
THE 294 Special Topics: Playwriting (4)
Principles and techniques employed in dramatic writing for the stage. Dramatic elements of a play, taking a play from conception to production.
Prerequisite(s): ENG 111
Corequisite(s): ENG 112
THE 296 KCACTF Preparation (2)
Students nominated for Irene Ryan scholarships, along with their scene partner, will prepare for the Region Three Festival in 2007.
Prerequisite(s): none
Corequisite(s): none


## Student Services

Experience everything Clark State has to offer! From financial aid and scholarship opportunities to career placement and tutoring services, successful students take advantage of Student Services.

## Admissions Policy

Clark State Community College is committed to providing each student with the maximum opportunity to develop and learn. As such, we adhere to an Open Admissions policy.

Admission to the College is offered to applicants who are high school graduates or possess GED equivalency; to applicants over 18 years of age, who have the ability to benefit from the College's programs or courses; and to applicants eligible to participate in the various special programs offered at the College.

Admission to the College does not assure admission to a particular program of study. Many technologies have established additional requirements that must be fulfilled prior to acceptance. All prospective applicants are encouraged to contact the Admissions Office for specific information.

For some students additional coursework in science, mathematics and English may be needed prior to enrollment in certain courses and programs. Such coursework is determined through a review of a student's past academic record or through the College's Placement Test. While all degree programs can be completed in two years of full-time study, it may take longer for some students. This is particularly true if the student is attending on a part-time basis, if the student needs to take college preparatory courses or if the student is also working.

## Enrollment Categories

## Post-Secondary Enrollment Option Program

The Post-Secondary Enrollment Option Program provides high school students with an additional educational option to take college classes. The program is intended to complement the high school's college preparatory curriculum.

Your high school counselors can help you decide if this program is right for you. In addition, high school counselors are responsible for explaining the equivalency, or lack of equivalency, of a given course at Clark State in meeting high school graduation requirements.

The Admissions Office can provide you with additional

## High School or High School Aged Students Not Enrolled in the

Post-Secondary Enrollment Option Program
In addition to taking the Placement Test, you will need to meet with an advisor at least quarterly. A limit in the number of credit hours may be imposed. If you are attending high school and Clark State at the same time, you need to submit a letter of permission from your high school principal or guidance counselor at, or before, registering for classes each quarter.

The Admissions Office can provide you with additional information and entrance requirements.

## Adults Who Have Never Attended College (Ability to Benefit)

If you are an adult who has never attended a college, you only need to take the Placement Test and meet with an advisor before you register for classes.

If you do not have a high school diploma or a GED certificate and are at least 19 years of age, you must achieve a minimum
score on the Placement Test for eligibility for Title IV Funds (federal financial aid). You will be granted conditional admission to the College until you have successfully completed any required developmental courses and earned at least a 2.0 GPA in your first 24 hours of college-level course work.

## Transfer Students

If you are transferring from an accredited college or university, you need to submit official college transcripts for courses you want evaluated for transfer credit. Transcripts must be mailed directly from the college to the Admissions Office. $\$

## International Student Admission

Clark State is authorized under federal law to accept non-immigrant ( $\mathrm{F}-1$ visa) students. Students wishing to enroll under this immigration status must apply through the Admissions Office following the instructions and guidelines on our website www.clarkstate.edu/international.html. The following documents are required:

## CLARK STATE APPLICATION

## School Transcripts - High School/College

All students are required to submit official copies of high school and college transcripts, translated in English. Faxed or unofficial copies will not be accepted.

## Toefl Scores

A minimum TOEFL score of 500 paper/173 computer is required. Minimum scores of 50 for each section (listening, writing and reading) paper based and 18 if computer based. Your scores should be directly sent from the TOEFL testing center. The TOEFL number for Clark State Community College is 1127 .

## Financial Support

Student and sponsor must complete the Financial Certification \& Affidavit of Scholarship. To satisfy visa application requirements, the student must show adequate finances to cover the expected period of study. Financial aid for international students is not available. Sponsor/student must provide current financial documentation such as bank statements, employment/salary letters, tax returns, etc. The documentation must be less than six months old, include the sponsor's name and signed by the appropriate bank or government official.

## Acknowledgement of Responsibility

Clark State Community College will issue an I-20 for the F-1 student visa only after the necessary documents have been received and evaluated. Please submit all documents together. Incomplete application packages will not be processed.

## Mature Citizens Program

If you are over 60 years of age, you may enroll in college credit and noncredit classes on a space-available basis. Normal admission requirements as well as instructional and general fees are waived. In addition to course enrollment, you'll also have the opportunity to use the College facilities and educational services. We also encourage you to take part in student activities. If you'd like more information, call or visit the Clark State Admissions Office.

## Admissions Process

The Admissions Office is available to help you get started at Clark State. Located in the Sara T. Landess Technology and Learning Center, Room 120, this office has everything you need. Fill out the Clark State admissions application and submit it to the Admissions Office. An application may also be filled out and submitted from our website, http://www.clarkstate.edu.

Students interested in applying to the College are encouraged to submit applications early. Completed applications are required for both full-time and part-time students. All necessary materials may be obtained by contacting the Admissions Office.

Students shall be accepted into the College after their completed application has been received by the Admissions Office. Students applying to health programs must also complete additional admissions requirements as noted on page 138. Students applying to the Realtime Reporting program must submit a high school transcript upon graduation or GED certificate.

Applicants are notified of their acceptance within 28 days of the Admissions Office receiving their application.

All admission procedures apply to both full-time and parttime students. New students are strongly advised to attend a new student orientation session that is scheduled through the Counseling Office located in Rhodes Hall. An on-line orientation is also available through the website at www.clarkstate. edu/orientation.html

## Entrance Exams

As an open admissions institution, Clark State does not require college entrance exams. However, if you are a high school student, you are encouraged to take either the ACT or SAT, especially if you will be transferring to a four-year college to complete a bachelor's degree. The following scores on these tests will exempt you from having to take initial placement tests:
(a) Students are excused from mathematics/algebra placement testing if they have received the following mathematics scores in the last three years: 22 ACT or 560 SAT.
(b) Students are excused from placement testing in reading and writing if they have received the following English scores in the last three years: 20 ACT or 500 SAT.
(c) Students with mathematics scores of 23 ACT or 700 SAT are eligible for mathematics proficiency tests.
(d) Students with English scores of 23 ACT or 670 SAT are eligible for English proficiency tests.

## Placement Testing

If you're entering a degree program at the College, you are required to take placement tests in reading, writing and mathematics before you register for your first courses. (This does not include students who have college-level English and math credits to transfer from another college or university, acceptable ACT or SAT scores (taken within the past three years), or those enrolling exclusively in other non-credit courses. These tests will be used to determine the English and mathematics courses that best match your skills so you'll have the greatest chance to learn and succeed at Clark State. You may be required to enroll in our college preparatory education (CPE) courses based on your specific program or test scores. The Advising Center staff will let you know if you need to take college preparatory courses.

Although there is no time limit, you should plan on $11 / 2$ to 2 hours to complete the test. Paper, pencil and calculator will be provided. Personal calculators may be used as long as they do not have graphing or programmable functions. A study guide is available in the Admissions Office and Success Center in the Sara T. Landess Technology and Learning Center or online at www.act.org/compass.

Most often, your placement test results will remain valid for three years. Initial placement tests are free of charge. One retest is allowed at a fee of $\$ 5$. Testing is available Monday through Thursday, 9 a.m. -7 p.m. and Friday, 8:30 a.m. -4 p.m. For further information call (937) 323-6049 or visit the Clark State website at www.clarkstate.edu.

If you have a documented disability (either a physical or learning disability) and need special accommodations for taking the placement tests, please make arrangements in advance with the Disability Services Specialist by calling (937) 328-6019.

## College Tech Prep Students

Students who have completed high school college tech prep programs, recognized by the Clark State Tech Prep Consortium, may qualify for scholarships and/or have the opportunity to earn college credit from Clark State while still enrolled in their high school programs. For more information contact the College Tech Prep Office at Clark State or call (937) 328-3888.

## Career Technical Center Graduates

High school students in the following career technical schools may have the opportunity to earn college credits from Clark State while still enrolled in their career center program: Greene County Career Center, Miami Valley Career Technical Center, Ohio Hi-Point Career Center, Springfield-Clark County JVS, Tolles Technical Center and Upper Valley JVS.

Agreements with these career technical schools may allow for one or more credit hours to be granted toward an associate degree or certificate at Clark State. For additional information about this program contact the Coordinator of Tech Prep at (937) 328-3888.

## Fresh Start

If you re-enroll after an absence of three or more consecutive years, you may petition the Records and Registration Office at any time prior to graduation to eliminate the cumulative GPA of your previous enrollment. Any courses in which you received a C or better will be counted in the "hours earned" but not in the GPA.

For more information about Fresh Start, contact the Records and Registration Office.

## Re-Admission

If you are returning to Clark State after three years or more, you will need to update your student information in the Admissions Office and re-take the placement test before registering for classes in the Records and Registration Office.
Students who interrupt their attendance and later return must meet the curricular requirements in place at the time of their return. Technical and basic courses taken prior to any interruption may have to be re-evaluated. Those that were taken in the last five years generally will still meet graduation
requirements. However, some technologies may have more stringent requirements. You should contact your division to determine the acceptability of previous courses. Courses that were taken more than five years ago will be evaluated on an individual course basis. Courses taken more than seven years ago will be evaluated for acceptability by the division dean.

If you want to re-enter a health program, you should also contact the Health and Human Services Division for additional reinstatement requirements.

Students enrolling after an absence of three or more consecutive years may wish to investigate the Fresh Start option.

## English Proficiency

If a student wishes to try and test out of English, he or she will be asked to complete a two-hour exam. This exam will include a written essay and a multiple-choice test, which have been prepared by the English faculty at Clark State.

The student should take the test before the end of midterm week of the quarter before he or she would be registered for the class. For Fall Quarter, the test should be taken in the spring. It will be graded by three English faculty members who will determine whether the student should take English I or English II based on the results of this exam. The fee for taking the exam is $\$ 60$. The student should call the Arts and Sciences Division Office at 937/328-6030 to schedule an exam time.

## Space-Limited Programs

Some programs offered at Clark State are restricted in the number of students who can be admitted each year. These spacelimited programs are Medical Laboratory Technology, Physical Therapist Assistant, Practical Nursing, Registered Nursing and Nursing Transition (Practical Nursing to Registered Nursing). Please refer to the curriculum pages or contact the Admissions Office for further information.

## Health Technologies Admissions

High school applicants for these programs are encouraged to apply for admission to the College in their junior or senior year. Students must fulfill the prerequisites as listed prior to petitioning to a health program.
All applicants (including those in high school) are considered for admission in the Registered Nursing, Practical Nursing, Nursing Transition (Practical Nursing to Registered Nursing), Medical Laboratory Technology and Physical Therapist Assistant programs by the date in which they file a petition and have that petition approved.

While on the waiting list, all applicants must maintain a 2.0 cumulative grade point average in the required courses in the curriculum. Students petitioning for 2008-2009 Physical Therapist Assistant program admission must have a GPA of 2.5 unless they have achieved a C or better in BIO 121 or BIO 122 (or the equivalent) prior to the end of winter quarter in the year of admission.

College preparatory courses and other courses, which are not listed as part of the curriculum, are not typically included in calculating the cumulative GPA. Effective 2008-2009, chemistry and physics pre-requisites will be included in GPA calculations for the Physical Therapist Assistant program.

Transcripts are reviewed prior to sending acceptance letters for these programs and prior to the beginning of the techni-
cal courses. Practical Nursing, Registered Nursing, Nursing Transition (Practical Nursing to Registered Nursing), Physical Therapist Assistant and Medical Laboratory Technology applicants must achieve a 2.0 cumulative grade point average in order to be eligible for acceptance into the program. Students accepted for 2008-2009 Physical Therapist Assistant program admission must have a GPA of 2.5 unless they have achieved a "C" or better in BIO 121 or BIO 122 (or the equivalent) prior to the end of winter quarter in the year of admission.

Applicants who have not maintained the required cumulative grade point average in the required courses when their names are reviewed for acceptance will be required to re-petition for the program.

## Emergency Medical Services (EMS)

Students must complete a request to enter the EMS program. Forms are available in the Admissions Office, Health and Human Services Division Office and online at http://www.clarkstate. edu/petition.html. All incoming EMS students must also meet the entrance requirements described in the curriculum pages.

## Physical Therapist Assistant

1. Successfully complete the reading, writing and math placement tests or equivalency. Refer to PTA program information for equivalencies.
2. Prerequisites include chemistry and physics. Refer to the PTA program information.
3. Students are required to complete 30 hours of observation. Refer to the PTA program information.
4. Students need to obtain a petitioning packet from the Admissions Office, Health and Human Services Division Office or online at http://www.clarkstate.edu/petition.htm and complete a petition to enter the PTA program.
5. Petitions are accepted in the Health and Human Services office (ASC 133) throughout the year. Admission and waiting list notifications are made initially in April of each year.

## Medical Laboratory Technology

1. Successfully complete reading, math and algebra placement tests, or obtain a grade of "C" or better in the appropriate college preparatory course.
2. After the petitioning requirements have been completed, students must petition for the program online at-http://www. clarkstate.edu/petition.html.
3. Students are entered into the program twice a year in fall and winter quarter based on the date of their approved petition request. Space limitations do not apply to distance students who complete lab sessions at out-of-area off-campus sites.

## Practical Nursing

1. Successfully complete the reading, writing and math placement tests or obtain a grade of $C$ or better in college preparatory courses.
2. After the petitioning requirements have been completed, students must petition for the program online at http://www. clarkstate.edu/petition.html. If all requirements are complete, the student's name will be placed on the waiting list.
3. Successfully complete MST 181 or equivalent course and furnish verification of nurse aide competency at the time of enrollment in the technical courses (MST 181 is not a requirement for the waiting list).

## Registered Nursing/Evening Registered Nursing/Nursing Transition (Practical Nursing to Registered Nursing)

1. Successfully complete the reading, writing and math placement tests or obtain a grade of $C$ or better in college preparatory courses.
2. One unit of high school chemistry or successful completion of CHM 115, CHM 114 or the equivalent with a grade of C or better is required within five years of placing your name on the waiting list.
3. After the petitioning requirements have been completed, students must petition for the program online at http://www. clarkstate.edu/petition.html. If all requirements are complete, the student's name will be placed on the waiting list.
4. Successfully complete MST 181 or equivalent course and furnish verification of nurse aide competency at the time of enrollment in the technical courses. MST 181 is not a requirement for the waiting list; MST 181 is not required for the Nursing Transition (Practical Nursing to Registered Nursing) program.

## Reinstatement for Health and Human Services Programs

If a student withdraws from, or does not continue in the technical courses in a space-limited program and wishes to re-enter, the student should contact his/her academic advisor in the Health and Human Services Division for a copy of the program specific Reinstatement Policy.

Students who wish to re-enter are required to have at least a 2.0 cumulative grade point average in courses required for the program before the reinstatement request will be considered. Transcripts are reviewed on an individual basis prior to accepting students for reinstatement. Certain courses may need to be repeated. If reinstatement criteria are met, eligible students are reinstated on a space-available basis to the quarter for which they are requesting reinstatement. Reinstatement is not guaranteed.

## Academic Advising

Academic advising is available to all Clark State students throughout each academic quarter. We encourage you to use this service. All new students who have completed the application process and have taken the Compass placement test may be assisted by an Academic Advisor in the Advising Center/Welcome Center with first quarter scheduling.

If you have not declared a major, you should contact the Advising Center or Career Services for academic or career guidance. If you have declared a major and you are a first quarter student, please contact the Advising Center for scheduling assistance. You will be assigned a Faculty Advisor, for future advising and scheduling assistance, during your first advising appointment. Faculty Advisors are specific to each student's field of interest and are proficient in their departments. All returning students should contact their Faculty Advisor to schedule an appointment for scheduling assistance. If you do not know the name of your Faculty Advisor you may contact the appropriate division office or view our Clark State web page before registration begins.

Prior to registration each quarter, all students will receive information explaining registration procedures. Appointments with first quarter Academic Advisors and Faculty Advisors should be made at this time.

## Student Responsibilities in Advising

The mission of the Academic Advising Center is to help students strive for success by engaging critical thinking skills in the clarification of academic goals. To this point both the student and advisor have specific responsibilities.

## Student Responsibilities

- Initiate and maintain contact with advisor during the first quarter; then transition to faculty advisor
- Provide reliable contact information
- Follow through on advisor recommendations and adhere to important dates
- Learn requirements of academic program
- Make use of appropriate resources on campus


## Advisor Responsibilities

- Service to incoming students is the primary responsibility
- Collaborate with campus-wide resources for student success
- Assist students in understanding college policies and procedures
- Communicate important dates
- Facilitate the ease of transfer


## EAGLES

If you are interested in a more intensive first quarter advising experience, please ask about the EAGLES program. The Excelling in Academic GoaLs \& Experiencing Success (EAGLES) program is designed to help students identify roadblocks to academic success. Advisors assist students with establishing goals, creating plans to strengthen academic skills and developing solid academic habits. The student and advisor will meet 3-4 times over the course of the first quarter at Clark State. For more information, contact the Advising Center at 937/328-3867.

## Transfer Advising

Please refer to the information on Transfer Degrees in the Introduction of this catalog for information on transfer advising.

## Registration Information

New students should contact the Admissions Office at 937/3286028 to make an appointment for registration. You should also attend orientation, an information session, where you will have the opportunity to learn (and ask questions) about Clark State.

If you are a returning student, you should contact your program's divisional office for academic advising and registration assistance.

Priority registration is for students who are currently enrolled at the College. This system gives you registration priority based on the number of credit hours you have earned. Open registration is for new and returning students.

Information about how and when to register for classes is found in the most current issue of the class schedule. Schedules are available in the Records and Registration Office, on our web site and at other campus locations approximately two weeks before a new quarter begins.

There are four ways to register: fax your schedule request to 937/328-6097, mail your schedule request to the Records and Registration Office, web registration and in person at the Records and Registration Office, Rhodes Hall, Room 220, or the Business and Applied Technologies Office, Brinkman Educational Center, Room 201.

## Credit Hour Limit

You may enroll for a maximum of 20 credit hours per quarter during the regular academic year. You must have the approval of your division dean to enroll in more than 20 credit hours.

## Adding Courses

You can add courses through the fifth class day in Fall, Winter or Spring Quarters.and through the second day of any Summer term. The Drop/Add card can be obtained from faculty advisors, division offices, Academic Advising Center, Records and Registration Office and online.

## Dropping Courses

If for any reason you cannot complete a course, you must officially withdraw from the class. Even if you never attend class, if you officially enrolled in a course, you will receive a grade for the course unless you complete and submit a drop form in accordance with College policy.

Grades will be reflected on transcripts as follows for a regular ten-week term:

- If the course is dropped prior to the 15 th day of the term, the work attempted will not be counted and no notation of the enrollment will appear on the transcript.
- If the course is dropped from the 15 th day of the term through the published date indicating completion of the seventh week of the term, the grade of W will appear on the transcript.
- If the course is dropped after the published date indicating completion of the seventh week of the term, the earned grade will be recorded unless the student contacts the instructor and the instructor approves and submits a grade of W .

For the last date to withdraw from a ten week term course and receive a grade of W , check the quarterly schedule. For the last date to withdraw from courses that run for less than a full quarter, please contact the Records and Registration office. Drop/Add forms are available from division offices, the Counseling and Advising offices and from Records and Registration. You can also drop courses online. Rules regarding assignment of grades still apply.

If you decide to withdraw from a class and have any form of financial aid, you should consult with the financial aid office prior to the withdrawal to determine what effect it will have on your financial aid status. If you receive veterans' benefits and drop a class or withdraw from all classes, it is your responsibility to notify the Academic Advisor, Sara T. Landess Technology and Learning Center, Room 120, 937/328-8071. Courses dropped anytime during the quarter could result in an overpayment dating back to the first day of the quarter.

## Repeating Courses

You may repeat any course at the College one time without having to request permission. Permission to take developmental courses a third or more times must be obtained from a review panel convened by the Dean of Arts \& Sciences. If you are enrolled in a health sciences program, you must also abide by the program specific published regulations about re-enrolling in courses.

If you receive a grade of $D$ or $F$ in a general education elective not specifically required for graduation, you may substitute a different general education course for inclusion in your cumulative grade point average.

A course that is re-taken will count only once toward graduation requirements and in the cumulative grade point average. Both the original grade and the new grade will appear on the transcript. However, only the higher grade counts towards your GPA.

## Auditing a Course

If you audit a course, you will not receive a grade or credit. You will be permitted to attend classes but you won't be required to take exams. The fee for auditing is the same as for credit. Audit status is not convertible to credit status nor is credit status convertible to audit status once the registration has been completed. Students using veterans' benefits or receiving financial aid may not audit classes.

## Change of Major

Students who decide to change majors must complete a Change of Major form available in the Records and Registration Office. You will need to meet placement testing requirements for your new major.

## SOCHE Cross-Registration Program

If you are a regularly enrolled student at Clark State or any other Southwestern Ohio Council for Higher Education (SOCHE) institution, you may be eligible to register to take classes offered by another SOCHE institution at no additional charge on a space available basis. Information on the eligibility requirements, registration procedures and the Cross Registration Application
form is available in the Records and Registration Office and on the web at http://www.soche.org/crossreg.htm. A list of the colleges and universities participating in the SOCHE cross registration program is available in the Records and Registration Office and on the SOCHE web site at http://www.soche. org/colleges.htm.

## Credit/No-Credit Enrollment

You may petition the Records and Registration Office for permission to take one course each quarter on a credit/no-credit (CR/NC) basis. There are a maximum total of six courses. Two of these courses may be selected from general education offerings; two courses that are basic to a major; and two from the technical courses.
You can make your choice at the time of registration. Once the quarter has begun, you cannot change back to the standard grading system. Your instructor will not know of your decision. At the end of the quarter, your grade of C or better is converted to CR and a grade of D or lower is converted to NC. Grades of CR or NC are not included when computing your grade point average.

## APPEALS FOR TRANSFER CREDIT

A student disagreeing with the application of transfer credit by Clark State Community College shall be informed of the right to appeal the decision and of the process for filing the appeal. The Records and Registration office shall make available to students the appeal process for Clark State Community College.

1. The student must complete the Transfer Appeal form (located in the Records/Registration Office - Rhodes Hall Rm. 222)
a. The appeal form is forwarded by the Records/Registration Office to the appropriate academic dean. The appropriate academic dean evaluates or re-evaluates the course(s) and returns the decision to the Records and Registration Office.
b. The Records/Registration Office contacts the student informing them of the decision.
2. If the student is not satisfied with the decision, he/she may appeal to the Vice President of Academic and Student Affairs. The Vice President of Academic and Student Affairs has the final decision for all academic matters.
3. If the student is not satisfied with the decision made by the Vice President for Academic and Student Affairs, he/she may appeal to the state-level Articulation and Transfer Appeals Review Committee.

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

The state-level Articulation and Transfer Appeals Review Committee shall review and recommend to Clark State Community College 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.

## Tuition


(per credit hour)
Instructional fees are charged on the first 16 credit hours registered in any one academic quarter. General fees are used to support the Student Senate, student activities and all other student services of the College including Financial Aid, Records, Counseling, Health Clinic, Campus Ministry and Career Placement.

Auxiliary services fees are used to support the operation and maintenance of parking lots and roadways, the Campus Police Department and other safety and security activities on all campuses.

Since access for students to state-of-the-art technology is critical to the learning experience, there is a $\$ 6$ per credit hour technology fee, up to a maximum of 16 credit hours. Revenue generated by this fee is used to directly benefit students.

All of our fees and expenses are established by the Clark State Community College Board of Trustees and are subject to change without notice. Your quarterly fees and expenses are due and payable prior to the beginning of the quarter in which you are enrolled. Although we make every effort to maintain tuition and fees at the lowest possible level, some of our students may find the cost of a college education to be too great without some form of assistance. The College and the Clark State Foundation
provide a variety of federal, state and institutional financial assistance programs to help. Please refer to the Financial Aid section in this catalog for more information.

## Payment

Payment for tuition may be made by cash, check, MasterCard, Discover or VISA. Those students who have not met their financial obligations will not be permitted to attend classes.

In addition, you may not be permitted to graduate, receive an official transcript or register for subsequent quarters until all your financial obligations to the College are satisfied.

To help ease the burden of paying tuition costs, Clark State offers a Delayed Payment Plan (DPP). This plan allows you to make payments of one-third of your bill at each of the three published deadlines. If you register after the fee payment deadline, you must pay the initial installment when you register. Contracts and additional information are available in the Cashier's Office in Rhodes Hall.

## Cash Refund Policy

Refunds of instructional, general, laboratory and technology fees will be made according to the following schedule. All drops or withdrawals must be in writing and are effective on the date received by the Records and Registration Office.

Refunds are not issued for late fees, auxiliary services fees or Delayed Payment Plan service charges. For certain programs, liability insurance is required to be purchased. For these programs a lab fee is assessed for this coverage. The coverage will remain in effect until the expiration of your insurance contract.

If you need more information, please contact the Financial Aid Office or the Cashier's Office.

## Fee Refund Schedule for Fall, Winter and Spring Quarters Date <br> Refund

By the 7th calendar day of the quarter 100\%
By the 14th calendar day of the quarter $75 \%$
By the 21st calendar day of the quarter 50\%
After the 21 st calendar day of the quarter
None

Fee Refund Schedule for Summer Quarter Date

Refund
The lst day of class 100\%
By the 4th calendar day after the
first day of class
$75 \%$
By the 9th calendar day after the
first day of class 50\%
After the 9th calendar day after the
first day of class
None

## Parking

Fines are assessed for vehicles not displaying a current parking permit or for violating motor vehicle regulations. Permits are free of charge and can be picked up in the Bookstore or in the lobby of the Brinkman Educational Center. You will need to know your license plate number. Fines are payable at the Cashier's Office.

Violations and fines include:
Parked in handicapped zone ..... \$50
Parked in fire lane ..... \$50
Moving violations ..... \$25
Parking on grass, sidewalk, loading zone or other restricted area ..... \$25
Student in faculty/staff lot ..... \$20
Improper parking ..... \$20
No valid permit ..... \$10
Parking in visitor lot ..... \$10

The Clark State Parking Guide is available for viewing on the College web page. Access the Campus Police section under Student Services.

## Ohio Residency

Clark State follows the Ohio Board of Regents Rule 3333-1-10 for determining a student's residency status for subsidy and tuition surcharge purposes. Copies of this rule and the Request to Change Residency Status Petitions are available from the Records and Registration Office. Specific exceptions and circumstances may require a review of each student's residency classification on an individual basis.

A petition for reclassification of residency must be submitted and approved prior to the first day of classes for the quarter if the reclassification is to be effective.

## Student Records

Our Records and Registration Office processes your student records, transcripts, identification cards and diplomas. It also processes changes in student status such as name, address, residency and major. For more information, please contact the Records and Registration Office.

## Transcripts

You may get an official transcript of your academic record by completing a transcript request form in the Records and Registration Office or by visiting the Clark State web site and downloading the form. You may also mail or fax a written request to the Records and Registration Office. A transcript request form is available at www.clarkstate.edu/pdf/transcript.pdf. When requesting a transcript, include your name, Social Security number, birth date, the term you last attended Clark State, legal signature and payment. If faxing, a credit card number and expiration date is required. The fax number is 937/328-6097. All copies are $\$ 2$ each. Normally, transcripts will be sent within two working days of the request date.

All financial obligations to the College (all fees and fines) must be paid and all college equipment returned before a transcript can be released.

## Access to Educational Records

The Family Educational Rights and Privacy Act (FERPA) affords you certain rights with respect to your education records.

You have the right to inspect and review your education records within 45 days of the day the College receives a request for access. You should submit to the Registrar written requests that identify the records(s) you wish to inspect.

You may request the amendment of your education records if you believe it is inaccurate or misleading. You should write the College officially responsible for the record, clearly identify the part of the record you want changed and specify why it is inaccurate or misleading. If the problem is not resolved to your satisfaction, you may take the matter to the Dean of Student Affairs and (in absence of resolution satisfactory to you) to a formal hearing in accordance with the College's established grievance procedures.

You have the right to consent to disclosures 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 school officials with legitimate educational interests.

You also have the right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-5920.

## Release of Information

The Buckley Amendment to the Family Educational Rights and Privacy Act of 1974 is designed to protect your privacy and your educational records. Clark State recognizes "Directory Information" as the following: student name, address, telephone number, major, degrees and awards received participating in officially recognized activities and sports, weight and height of members of athletic teams, dates of enrollment, enrollment status and most recent previous educational agency or institution attended.

You may request that your "Directory Information" not be released by signing a request to withhold information, available in the Records and Registration Office. The College will not release information to the newspaper concerning academic achievement if you have submitted a request.

## Academic Policies

The following sections are intended to be an overview of academic policies and procedures at Clark State. For more detailed information, contact the Records and Registration Office. The Vice President of Academic and Student Affairs is ultimately responsible for developing and implementing academic policies.

## Attendance

Achievement of academic goals is best accomplished through regular class participation. Therefore, you are urged to attend all class and laboratory sessions. When unavoidable absences do occur, you should take the responsibility to contact your instructor to make arrangements for work that has been missed. Instructors have the right to issue a failing grade if you incur excessive absences and have not officially withdrawn from a course. Specific information concerning attendance is available in the course syllabus.

The College is required to report non-attendance to federal and state agencies that provide financial assistance to students. Failure to attend classes may also result in having to repay part
or all of an allowance from the Veterans Administration or state or federal agencies.

## Academic Misconduct

Academic misconduct includes cases of cheating, plagiarism or any other dishonesty or deception in fulfilling academic requirements.

Faculty members have the authority to issue a failing grade for any assignment in which academic misconduct has occurred. In serious or repetitive incidences, the faculty member may refer the issue to the appropriate administrator for further action. Such action may include issuing a failing grade in the course or expulsion from the institution.

## Grade Reports

You can access your final grades through WebAdvisor. Grades will not be released over the phone. You may request an official copy of your grades in the Records and Registration Office or online. If you have a concern about a grade, you should discuss it with your instructor within five weeks after the end of the quarter. If the grade was for a Spring or Summer Quarter class, you should discuss it with your instructor by the fifth week of Fall Quarter. If the problem is still not resolved, you may discuss it with the divisional administrator and then the Vice President of Academic and Student Affairs.

## Dean's List

If you carry a minimum of six credit hours of college courses and maintain a grade point average of 3.5 or better for a quarter's work, you will be enrolled on the Dean's List in recognition of achievement that quarter. Grades of "satisfactory" and grades in college preparatory courses are not included in determining the grade point average.

## Academic Probation

You are considered to be on academic probation when your cumulative grade point average falls into the ranges listed below:

## Hours attempted

1-15
16-30
31-45
46-60
Over 60

## Cumulative GPA

Below 1.50
Below 1.60
Below 1.70
Below 1.80
Below 2.0

Probation means that you are in jeopardy of being dismissed from the College for academic reasons. If your average places you on probation, you should confer with your advisor to select a course schedule. Academic support services such as tutoring and the writing lab are strongly recommended for students on probation.

When on academic probation, you may carry a maximum load of 12 course credits. (This includes students accepted into the College on probation by the Admissions Office.) It is strongly recommended that you repeat any failed courses the next quarter those courses are offered

## Dismissal

A student is dismissed from the College when his/her cumulative grade point average falls below the probation levels listed below. Dismissal means that you must sit out the quarter following the term in which your GPA falls below probation levels. However, you will be placed on probation at least one quarter before dismissal for academic reasons. During that probation term, you will receive a letter from the Records and Registration Office stating that failure to improve the GPA by the end of the quarter will result in dismissal.

You will be dismissed when your cumulative grade point average falls into the following ranges.

## Hours attempted

1-15
16-30
31-45
46-60
over 60

## Cumulative GPA

Below . 80
Below .90
Below 1.20
Below 1.40
Below 1.60

You may be re-admitted to Clark State on probation after you have sat out one quarter, completed the Petition for ReAdmission form available in the Records and Registration Office and have it reviewed and approved by the division dean or coordinator of advising.

Upon reinstatement, you must meet with the program advisor/divisional administrator to determine a course of action. You will be permitted to enroll for not more than 12 credit hours for each of the next two quarters and must maintain a 2.0 grade point average (GPA) in each of those quarters. Once this requirement is met, you and your program advisor/division dean will mutually agree upon the class load you will take for subsequent quarters.

In order to avoid being dismissed again, a quarter GPA of 2.0 must be maintained or dismissal will occur when your cumulative grade point average falls into one of the above ranges.

## Computer Literacy

Computer literacy is essential for Clark State graduates to be productive in the workplace. Clark State requires that you complete the computer requirements listed in your program.

## Definition of Credit Hour

All academic credits are expressed in terms of credit hours. Clark State defines a credit hour based on the requirements of the Ohio Board of Regents.

## Grading System

Academic achievement is indicated by the following grades and points used in calculating grade point average:

A-Excellent
B-Good
C-Average
D-Poor
F-Failing
Z-Non-Attendance*
(4 grade points per credit hour)
(3 grade points per credit hour)
(2 grade points per credit hour)
(1 grade point per credit hour)
(0 grade points per credit hour)
(0 grade points per credit hour)
(*Student registered for class but never attended)
Your GPA is obtained by dividing the total number of grade
points earned in college credit courses by the total number of credit hours attempted in those courses. For example, consider the following grades earned by a student:

|  | Credit Hours | Grade | Points |
| :---: | :---: | :---: | :---: |
| Course 1 | 3 | B | 9 |
| Course 2 | 3 | C | 6 |
| Course 3 | 4 | B | 12 |
| Course 4 | 3 | C | 6 |
|  | Total hours: 13 | Total points: 33 |  |

The total number of grade points, 33 , is determined by adding together the points earned in each course (credit hours x grade points). That number is then divided by the total number of credit hours, 13 , to determine the grade point average. In this example the average is $33 / 13=2.54$.

Grades issued for college preparatory courses are not counted in your grade point average. A cumulative grade point average refers to the average for all college credit courses taken during your enrollment at the College. There are other symbols that can be issued for which no points are associated:

| S | Satisfactory |
| :--- | :--- |
| U | Unsatisfactory |
| I | Incomplete |
| PR | Proficiency |
| CR | Credit |
| NC | No Credit |
| EX | Experiential Credit |
| TR | Transfer Credit |
| AR | Articulated Credit |
| W | Withdrawal |
| X | Audit |
| IP | In Progress (self-paced courses only) |
| N | No Grade Reported (Records Office use only) |
| PG | Progressing (college preparatory education only) |

## Incomplete

The incomplete "I" grade process may be initiated when you are progressing satisfactorily in a course, but for reasons beyond your control (e.g., illness or death in the family), you will not have completed all requirements for the course when final grades are submitted by the instructor.

You must notify your instructor by the last day of any quarter. If the instructor agrees to an I grade, it will be submitted on your grade report and the instructor will set up a schedule on the Incomplete Grade form for completion of the course requirements by midterm of the following quarter.

When you complete the class requirements, the instructor will change the I grade to another letter grade. If you do not complete the requirements, the I grade will automatically be changed on Friday of the fifth week of the following quarter to an F grade on your transcript. A student receiving an incomplete grade at the end of Spring or Summer Quarter must complete all conditions by Friday of the fifth week of Fall Quarter.

## Global Awareness

Because of the importance of international events to our lives, we require each graduate to successfully complete a course or courses that emphasize global awareness. The number of classes varies with the degree being sought.

## Graduation Requirements

To qualify for an associate degree, you must pass all required courses for your major and have a cumulative grade point average of at least 2.0. Students in the following majors must have a C as a minimum grade in all required major courses: Early Childhood Development, Early Childhood Education Administration, Early Elementary Paraprofessional, Emergency Medical, Medical Laboratory, Practical Nursing, Registered Nursing, Physical Therapist Assistant and Social Services. Students in the Realtime programs must have passed each of the terminal speed courses within 12 months prior to graduation.

All students are expected to complete the residency requirement of at least 30 credit hours of course work at Clark State for an associate degree or 18 credit hours for a one-year certificate program. Credit equivalencies, such as articulated, experiential, transfer or proficiency credit do not count toward the residency requirement. Credit equivalencies may not exceed one half of the required technical course credits for the degree or certificate program being pursued unless recommended by the faculty and approved by the divisional administrator.

All financial obligations to the College (instructional fees, general fees, laboratory fees, technology fees, library fines, parking fines) must be paid and all College equipment returned before your grades or a diploma will be issued by the College.

## Graduation Process

Graduates earn one of the following degrees: Associate of Arts, Associate of Science, Associate of Applied Business, Associate of Applied Science or Associate of Technical Studies. Students who complete 1 year certificate programs may also participate in the graduation ceremony.

Students wishing to graduate must submit a Petition to Graduate Form to the Records and Registration Office. Students who fail to petition to graduate within 12 months of last enrollment in courses within the curriculum must meet the curricular requirements in force at the time of their petition. If you anticipate completing graduation requirements by the end of Spring or Summer quarter you should complete the Petition to Graduate form prior to March 31. If you anticipate completing graduation requirements by the end of Fall or Winter quarter, you have until the last day of the quarter to submit your Petition form. Students who do not complete the graduation requirements by the end of the designated term on their petition must submit another Petition to Graduate form to the Records and Registration Office once requirements are met.

The graduation ceremony is held in June. Blank diplomas will be issued at graduation. If you finish your degree or certificate requirements at the end of the Fall, Winter or Spring Quarters, your diploma will be mailed at that time and you may elect to participate in the June graduation ceremony.

If you have a cumulative 2.0 average and need no more than four courses which will be offered during the Summer Quarter to complete degree requirements, you may petition the Records and Registration Office for graduation and participate in the June graduation ceremony. Diplomas will be issued after your degree requirements are completed during the Summer Quarter.

Students with a cumulative grade point average of 3.5 or better at the end of Winter Quarter will be recognized at commencement as honor students. Each student bears responsibility
for scheduling those courses necessary to complete graduation requirements. Students who interrupt their attendance for more than one academic year and later return must meet the curricular requirements in force at the time of their return.

## Student Classification

You are considered full-time when you are enrolled in at least 12 credit hours. If you carry 11 credit hours or less per quarter, you are part-time.

You are a first-year student if you are registered in a specific program and have earned fewer than 46 quarter hours of credit, including transfer credit. You are a second-year student once you have earned 46 or more quarter hours.

## Credit Equivalencies

You may qualify for academic credit for college-level learning gained outside of college through a variety of methods including Business or government training recommended by the American Council on Education (ACE); Military service training recommended by ACE; Portfolio evaluation; and credit by examination. To learn more about the available options contact the Records and Registration Office or visit with your advisor.

## Transfer Credits to Clark State

You can be granted credit toward a degree at Clark State for work completed at other regionally accredited colleges and universities for courses with a grade of $C$ or better. Some credits may not apply to specific degree programs. The credits must have been earned within a certain time period to be considered current and acceptable. An official transcript needs to be submitted from each college where credits were earned. Transfer credit is evaluated on a course-by-course basis once you have applied to Clark State. Until you are notified, you are responsible for not duplicating courses for which you may obtain transferable credit.

Applicable technical and basic courses taken within the last five years generally will be accepted to meet program requirements. Some technologies have more stringent requirements; so contact your division in order to determine what requirements apply.

If you change majors while attending Clark State, you should ask the Records and Registration Office to reevaluate the transcript for additional transfer credits. Those required by the new major will be considered toward degree completion.

Transferred credits are counted in the cumulative hours completed but are not counted in the cumulative grade point average.

Decisions regarding acceptance of transfer credit are made by divisional administrators and the Coordinator of Advising and Articulation. If you disagree with a decision, you may follow the appeals process. The appeals process begins with the completion of the Appeal for Credit form located in the Records and Registration Office.

## Financial Aid

Financial aid is available from many sources to help students who, without such aid, would be unable to attend college. Although students and their families are primarily responsible for the cost of education, financial aid can fill in the gap if their family can afford only part of the cost.

## How to Apply

Financial aid applications are available in January for the upcoming financial aid year that begins with Summer Quarter. You should file these applications as soon as your tax information is available.

Clark State uses the Free Application for Federal Student Aid (FAFSA). FAFSAs are available in the Financial Aid Office or on the web. You should complete this form using prior year income. The information provided on this form is processed and a Student Aid Report (SAR) is sent to you two to three weeks after you have submitted your application.

The SAR is used to establish your financial need. With a few exceptions, all financial aid awarded is based on demonstrated financial need. By filing the FAFSA, you will be considered for all aid for which you might be eligible. The Financial Aid Office determines eligibility and notifies students with an award notification via the financial aid web page detailing aid that is being offered. Applications for additional aid, such as Federal Work-Study, will be considered as long as funds are available. We encourage you to apply early.

Materials completed by the deadlines below will be processed by the beginning of the quarter, providing the student meets all eligibility requirements and has submitted all requested documents.

## Priority Deadlines

| Summer | March 15 |
| :--- | :--- |
| Fall | June 15 |
| Winter | October 15 |
| Spring | December 15 |

Generally, Pell Grants may be used for a maximum of three quarters during the academic year beginning with Summer Quarter and ending with Spring Quarter. Students who want to be considered for an additional quarter must contact the Financial Aid Office to verify further eligibility beyond three quarters. If you do not provide the requested documentation needed to complete the verification process, you may lose funds.
The Financial Aid Office begins processing financial aid applications and loan applications for the next academic year in the spring for those students whose applications are complete and ready to be processed.

All loan applicants are required to file the FAFSA, which indicates eligibility or non-eligibility with the Financial Aid Office.

Clark State can provide you with additional information about scholarships and deadline dates. Please call the Financial Aid Office at 937/328-6034.

## Supporting Material

Additional documentation may be needed for certain situations or to comply with U.S. Department of Education verification requirements. The Financial Aid Office will advise you on what you need.

## Eligibility Requirements

Listed below are the eligibility requirements for the federal programs.

1. Generally, you must show financial need.
2. You need to have a high school diploma, GED or have passed an independently administered test approved by the U.S. Department of Education.
3. You are enrolled as a regular student in an eligible program.
4. You need to be a U.S. citizen or eligible non-citizen.
5. You will need to make satisfactory academic progress.

## Denial of Aid

Aid may be denied for several reasons: no need or insufficient demonstrated financial need, lack of institutional funds, failure to make satisfactory progress toward completion of the certificate or degree, default on a federal student loan or failure to submit required documentation.

## Financial Aid Vouchers

When aid has been awarded, it becomes a voucher similar to a credit card that can be used on campus for the payment of tuition, fees and books. A check for any surplus aid not used is mailed to the student's home address the fifth week of the quarter by the Business Office. Students who totally withdraw may not receive any surplus funds.

## Federal Pell Grant

The Pell Grant is a federal assistance program designed to provide the foundation on which other aid can be built. As in any grant, it is a form of gift aid, which does not have to be repaid. The amount of the award depends on the Expected Family Contribution (EFC) on the Student Aid Report and the number of credit hours for which a student enrolls. A student who has already earned a bachelor's degree is not eligible for this grant. During 2006-07 the annual value of Pell Grants at Clark State ranged from $\$ 400-\$ 4,050$ for part-time and full-time students, respectively.

## Academic Competitiveness Grant (ACG)

The ACG grant is another federal grant that can provide up to $\$ 750$ for a first year student and up to $\$ 1300$ for a second year student. Students must be Pell eligible, enrolled in a two year degree program, be full-time and must have completed a rigorous high school schedule consisting of four years of English, three years of Math, three years of Science, three years of Social Studies and one year of a foreign language. Students must submit a high school transcript or Ohio honors diploma to be considered. To be eligible for the second year of funding, students must obtain a cumulative GPA of 3.00 by the end of their first year.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

This is a federal grant which provides assistance to eligible undergraduate students who have not earned a bachelor's degree. The maximum award by law is $\$ 4,000$ per year; however, the amount of any individual award may be much less because of restricted funding. FSEOG awards must be targeted to exceptionally needy students with priority given to Pell Grant recipients.

## Federal Subsidized Stafford Loan Program

This program offers long-term interest-bearing loans made available to students by lending institutions (banks, savings and loan associations and credit unions) to help pay for educational expenses. Repayment is made beginning six months after the borrower ceases to be at least a halftime student (enrolled in six credit hours). This program is open to all dependent and independent undergraduate students based on financial need.

Loan proceeds are usually sent to the College in multiple disbursements. First-year, first-time borrowers cannot receive the first loan payment until 30 days after the first day of the loan period. Arrangements must be made by the student to take care of tuition costs until loan proceeds are issued.

## Federal Unsubsidized Stafford Loan Program

This loan program is available to dependent or independent undergraduate students regardless of family income. The term unsubsidized means that interest accumulates (i.e., is not paid by the federal government) while the student is enrolled. The application process is the same as for the Federal Subsidized Stafford Loan Program.
Loan proceeds are sent to the College in the same manner as the subsidized loan program and the 30 -day wait for new borrowers also applies.

## Parents' Loans for Undergraduate Students (PLUS)

PLUS Loans for dependent students are not need-based and are made regardless of income pending credit approval. They are used to supplement needs not completely met by the Stafford Loan programs. The interest rate of the loan is variable and is set by Congress. There is no deferment option or grace period for the PLUS program.

The application process for the federal PLUS program is the same as for the Stafford Loan programs and does not carry a fixed loan limit, but is limited to the cost of attendance.

## Ohio Instructional Grant (OIG)

This grant is funded by the Ohio Board of Regents and is awarded to eligible residents of Ohio who show financial need and are enrolled full-time in a degree-granting program.

The application process is accomplished through the application for the Pell Grant program (FAFSA).

## Ohio College Opportunity Grant (OCOG)

This is a grant funded by the Ohio Board of Regents and is similar to the OIG grant, but is for students that were considered freshman beginning with the 2006-07 award year. Students may be full-time or part-time and awards are adjusted based on actual enrollment status. The application process remains the same.

## Ohio Part-time Student Instructional Grant Program (OIP)

The Ohio Part-time Student Instructional Grant program (OIP) is for those students who are enrolled for less than full-time (fewer than 12 credit hours each quarter), and who are not
receiving OCOG. Please contact the Financial Aid Office to inquire as to the eligibility for this program.

## Foundation Loan

The Foundation Short-Term Loan is an emergency loan program for the payment of tuition, fees and books. This loan cannot exceed $\$ 1,000$ per quarter and must be repaid by the eighth week of the quarter. There is a $\$ 20$ processing fee. The borrower must demonstrate the ability to repay the loan. Receipt of this loan is contingent upon availability of funds.

## Mumma Loan

The Dorothy M. Mumma Short-Term Loan is an emergency loan program for the payment of tuition, fees and books. This loan cannot exceed $\$ 1,000$ per quarter and must be repaid by the eighth week of the quarter. There is a $\$ 20$ processing fee. The borrower must demonstrate the ability to repay the loan. Receipt of this loan is contingent upon availability of funds.

## Academic Progress

As a Clark State student, you are expected to meet standards of academic progress while working toward a degree, certificate or transfer credits. The Financial Aid Office is required by the U.S. Congress and the U.S. Department of Education to enforce standards of academic progress for students who receive Federal Pell Grant, Federal ACG grant, Federal SEOG, Federal work-study and Federal Family Educational Loans. This policy is applied to all financial aid applicants, regardless of whether they received financial aid previously.

## Credit Hour Requirements

You will need to successfully complete 67 percent of all hours attempted, both quarterly and cumulatively, with an " $A$ ", "B", "C", "D", "IP", or "S." You must also maintain an appropriate grade point average as determined by the College to retain eligibility for federal aid.

## Total Credit Hours Attempted

1-15
16-30
31-45
46-60 over 60

## Grade Point Required

Above 1.49
Above 1.59
Above 1.69
Above 1.79
Above 1.99

You must complete your program of study within $150 \%$ of the program length. Clark State credits and any transfer credits accepted by Clark State are included in the $150 \%$ timeframe maximums, also including withdrawals and non-completions. If a student changes majors within the same degree or certificate, they are still required to complete within the same maximum timeframe.

## Credit Hour Probation

If a student fails to complete $67 \%$ of their attempted hours and/ or falls below the minimum GPA requirement, they are placed on financial aid probation. Aid is applied for one quarter only and is re-evaluated before the next term. Students must successfully complete $67 \%$ of attempted hours and meet GPA requirements during their probation quarter and until an overall $67 \%$ rate is achieved. Students who fail to meet the requirements will be suspended from federal financial aid.

## Grade Point Probation

You must maintain the minimum quarterly GPA until your overall GPA reaches the minimum. The student will be awarded federal financial aid on a quarterly basis only, maintaining probation status. All students must have attained a 2.0 GPA by the end of the second year of their program.

## Financial Aid Suspension

If the probationary status is not removed in the above-specified manner, federal financial aid will be suspended. In order to receive further federal aid, you must successfully complete 24 credit hours. The Appeals Committee will then review your transcript. You can still receive non-federal assistance. If financial aid is suspended a second time, there is no appeal.

## Financial Aid Appeals Process

If you lose your eligibility and feel there are mitigating circumstances, you may appeal in writing to the Financial Aid Appeals Committee. If the appeal is granted, you will be placed on probationary status until you reach an overall 67 percent successful completion rate. The decision of the Appeals Committee is final.

## New Programs of Study

Students who are seeking a second degree must contact the Financial Aid Office to determine new eligibility. Only one new degree will be considered.

## Work-Study Program

The Federal Work-Study program provides part-time campus employment if you have financial need and want to earn part of your education expenses. You must be enrolled for at least six credit hours each quarter to be eligible to participate. During the Summer Quarter, you must be enrolled for at least six credit hours. Currently, the wage rate is $\$ 7.00$ per hour, but is subject to change with changes in the federal minimum wage. You may work up to 18 hours per week. The amount you may earn in a school year is determined by the amount of your financial need, other financial aid and availability of federal funds.
The College-Funded Work-Study Program provides part-time campus employment even if you do not show financial need (as you would for the Federal Work-Study Program). The wage rate and hours worked are the same as for the federal program.

The Financial Aid Office assists students with locating parttime employment on campus.

## Withdrawals

Your financial aid is based on the number of credit hours for which you are officially registered. You must notify the Financial Aid Office of any changes in enrollment.

If you add or drop credit hours, your financial aid will be automatically recalculated based on your level of enrollment. This recalculation will continue throughout the refund period.

## Financial Aid Refund Policy

Any student receiving Federal Title IV funds will be subject to the following policy regarding the return of Federal Title IV funds:

Students who withdraw from all classes prior to completing more than 60 percent of an enrollment term (quarter) will
have their eligibility for federal aid recalculated based on the percentage of the term completed, which shall be calculated as follows:

The percentage of the quarter completed is the percentage of aid earned. This is calculated by the number of days the student attended divided by the number of calendar days in the payment period (i.e. quarter). For example, if a student completely withdrew on the 20th day of a quarter that is 114 days in length, the student would have only earned 17.5 percent of the aid he or she received ( 20 divided by $114=0.175$ ).

Clark State Community College and the student will be required to return to the federal aid programs the amount of aid received that was in excess of the aid "earned" for the period the student remained enrolled.

If the College returns funds to the Title IV aid programs, it could result in the student owing Clark State Community College charges that were originally paid at the time of disbursement. Students may also be required to return funds released to them for personal expenses. Unearned federal aid will be returned in the following order: Federal Stafford Loans (unsubsidized, then subsidized), Federal Plus Loans, Federal Pell Grant and Federal SEOG.

Students who remain enrolled through at least 60 percent of the payment period (quarter) are considered to have earned 100 percent of the aid received and will not owe a repayment of Federal Title IV grant funds.
*Please note that students are responsible for any balance owed to Clark State Community College as a result of the repayment of federal aid funds. For more information on the financial aid refund policy, please contact the Financial Aid Office.

## Educational Costs

Expense budgets include both direct (on-campus) and indirect (off-campus) educational costs. Direct costs are tuition and fees. Indirect costs may include estimates for books, transportation, room and board and miscellaneous and personal expenses. These expenses will vary from student to student depending on a number of factors such as marital status, dependency status (as defined by federal and state programs), residency and number of dependents. The total of all aid cannot exceed the student's cost of attendance.

## Scholarships

Clark State offers a variety of scholarship opportunities. Applications are available in the Financial Aid Office.

## Trustee Honor Scholarship

Fifteen full tuition packages are available to academically talented students from high schools and vocational schools within Ohio. Recipients must be graduating during the current year, rank either in the upper 15 percent of their high school graduating class or have a 3.5-4.0 grade-point average and have demonstrated involvement in activities outside the classroom. Recipients may retain eligibility for a second year by achieving stated academic requirements. Applications may be obtained from high school counselors or the Admissions Office. Application deadline is the last Friday in March of the student's senior year of high school

## Clark State Foundation

The Clark State Community College Foundation is a nonprofit organization that provides support to the College and its students. The Foundation offers and administers scholarships funded by contributions from individuals, businesses and organizations. Please pick up an application in the Financial Aid Office, the Admissions Office, the Foundation Office or from the Brinkman Educational Center receptionist. Deadlines for applying are stated on the application. Your application will then be reviewed by the Scholarship Review Committee.

## Other Scholarships Available at Clark State

You may also want to apply for these scholarships, which are funded by the State of Ohio:

## George Mueller College Tech Prep Scholarship

Students who have completed the high school portion of a Tech Prep program located in the Clark State Tech Prep Consortium may apply for the George Mueller Scholarships. Students must apply no later than the Winter Quarter following high school graduation, have a $95 \%$ attendance rate, earn a 2.5 GPA during their junior and senior year in high school and continue in their Tech Prep Pathway at Clark State. Contact the Clark State College Tech Prep Office in the Brinkman Educational Center for additional information.

## Ohio Academic Scholarship

The Ohio Board of Regents awards a $\$ 1,000$ a year scholarship to recent high school graduates based on their high school grades and ACT scores. At least one scholarship is awarded through each high school. Application is made through the high school counselor.

## Ohio National Guard Scholarship

The Ohio National Guard will pay 100 percent of instructional and general fees of its members approved for education. Application is made through the local Guard unit.

## Ohio Tuition Waivers

The State of Ohio grants tuition waivers for the children of Ohio peace officers and fire fighters killed in the line of duty. Applications are processed through the Financial Aid Office.

## Ohio War Orphans Scholarship

The State of Ohio awards scholarships for the payment of fulltime instructional and general fees to dependent children of deceased or disabled Ohio War Veterans. Application is made through the Ohio Board of Regents.

## Academic Services

The following sections are intended to be an overview of academic services at Clark State. For more detailed information, contact the Dean of Student Affairs.

## The College Library

The Clark State Library, on the ground floor of the Sara T. Landess Technology and Learning Center, provides a variety of materials and services to students, faculty, staff and the community. The Library owns more than 35,000 books, 300 periodicals with electronic access to hundreds more and 2,000
pieces of audiovisual material. The media center houses computers with access to the Internet and electronic databases through OhioLINK. Numerous handouts are available at the reference desk, as well as extensive information on getting started with research on the library's web page at: http://lib2.clarkstate. edu/library/library.html.

A validated Clark State student identification card serves as your library card and entitles you to full borrowing privileges in accordance with the Library circulation policies. A copy of these policies is available at the circulation desk and online.

The Clark State Library is a member of OhioLINK, the statewide network of automated library services that provides access to a central library catalog and over 100 electronic databases.

Interlibrary Loan service is available to students, faculty and staff for locating and borrowing materials not owned by the College Library or available through OhioLINK. You may borrow books from any OhioLINK library with a validated Clark State ID card.

Note: Requests for diplomas, transcripts and registration for subsequent quarters may be rejected due to Library obligations.

The Library is open Monday through Thursday, 8 a.m.9 p.m., Friday, 8 a.m.-5 p.m. and Saturday, 10 a.m. -3 p.m. Summer hours vary. Between academic quarters, hours are Monday through Friday, 8 a.m. - 5 p.m. The Library is closed when the College is closed. Please call 937/328-6022 for more information.

## Counseling Services

An experienced professional counselor offers an array of programs and services to help you achieve personal growth and academic success. Personal counseling, career/life planning, consultation and special workshops and programs are available free of charge. Counseling services are confidential. For more information, please stop by the Counseling Office, Rhodes Hall, Room 224, call 937/328-6024 or visit the Clark State website.

## Tutoring

You are entitled to free tutoring as a Clark State student. If you are interested in obtaining a tutor or becoming one, please contact the tutoring assistant in the Sara T. Landess Technology and Learning Center, Room 117 or in the Brinkman Educational Center, Room 106. The assistant assigns tutors and assists in arranging contact hours - usually two hours per week per subject. Online tutoring is now available through the Clark State website.

## Disability Services

Clark State Community College is committed to helping students with physical and learning disabilities. Students are strongly encouraged to meet with the Disability Services Specialist in Rhodes Hall, Room 215B several weeks before enrolling in classes to determine eligibility for services. Students who qualify for services must meet with the disability services specialist before each quarter to arrange for their support services. Services are offered on a voluntary basis and the student must request them. For more information, please contact the Disabilities Services Office at 937/328-6019 or visit the Clark State website.

## Success Center

The College's Success Center in the Sara T. Landess Technology and Learning Center, Room 117, offers a full-service area for new and returning students. Tutoring is available on a walk-in basis Monday through Thursday, 8:30 a.m.-7 p.m. and Friday, 8:30 a.m.-5 p.m. Computers for Internet research and supplemental learning programs for a variety of classes are also available. Students can also take advantage of various study groups and workshops facilitated by the Success Center.

## Office of Career Management

Sound career choices are based on knowledge about yourself and the world of work. Whether you are choosing a major, researching your chosen career field or preparing for your job search, the Office of Career Management can help you meet these challenges. The Office of Career Management offers a full range of services designed to assist students in exploring the wide range of personal and professional choices open to them, and to find the career path that fits them best. All Clark State students and alumni are encouraged to use the Office of Career Management's web-based resume referral service, self-assessment, career exploration and job search resources. For more information on how we can help you, please call 937/328-6093, or visit us at the Sara T. Landess Technology and Learning Center or online at http://careers.clarkstate.edu.

## Cooperative Education

Cooperative Education at Clark State combines paid work experience with academics. This combination of academic learning and on-the-job training can create a superior learning environment for you.

The alternate work program consists of a quarter of full-time study, then a quarter of full-time employment. The parallel work program allows you to work a half-day and study the other half. You can earn wages and three to five college credits per quarter. If you are already employed in your field of study, the Co-op program allows you to receive college credit for your work.

For more information, contact the Cooperative Education faculty member at 937/328-6073 or your advisor.

## College Preparatory Education

College preparatory education (CPE) courses in reading, writing and mathematics are designed to build skills so that you'll succeed in college-level classes. If you have been away from the classroom for a number of years, did not develop strong basic academic skills in high school or do not have any background in an area that is an important part of your college program (algebra or chemistry, for example), you will benefit from these preparatory courses.

Placement into these courses is determined by the placement tests and by you and your advisor.

College preparatory education courses do not count toward graduation or in your cumulative grade point average. They do, however, count in the calculation of full-time status and are included in consideration for grants and other financial aid.

You may repeat a CPE course twice without permission. Permission to take a CPE course a third or more times must be obtained from a review panel convened by the Dean of Arts and Sciences.

## Personal Growth Courses

The Counseling Office offers a series of courses designed to support and enrich your academic work. These personal growth courses cover a variety of subjects from study skills to stress management skills and career exploration. They are intended to help you gain self-confidence and a greater sense of self-knowledge. For more information, see the PGR course descriptions in this catalog.

## Prior Learning Porffolio

If you would like to earn credit for your life experiences, you may put together portfolios that are assessed by members of the Clark State faculty. Guidelines for these portfolios are available in the Arts and Sciences Division.

## Student Success Program

The Student Success program offers support, special programs and assistance to lower-income Clark County students who are supporting minor children. Funded by the Clark County Department of Job and Family Services, this program leads students in addressing the barriers to success that they often face as parents. For more information, please call 937/328-3855 or visit us at www.clarkstate.edu/wfd/.

## Honors

We occasionally offer honors courses that parallel the Phi Theta Kappa Honors Society topic for the year. If you are interested in enrolling in an honors course, you should speak with your academic advisor or counselor.

## Phi Theta Kappa

Phi Theta Kappa is the International Honor Society for the twoyear college. Phi Theta Kappa was established in 1918 and has over 1,000 chapters in the United States, Canada and Germany at colleges offering the associate degree. Clark State's chapter, Alpha Nu Lambda, was established in 1987. The purpose of Phi Theta Kappa is to promote scholarship, leadership, fellowship and service and to nurture its members, the campus and the community by sponsoring various activities which educate, stimulate and enrich. Induction into Phi Theta Kappa provides national recognition to students of distinguished achievement. To become a member of Phi Theta Kappa, you must have a grade point average of 3.5 or above and 18 credit hours toward an associate degree.


Want to know who's who at Clark State? Our Campus Directory will introduce you to all of the faculty and staff who are here to help you realize your college dreams.

## Academic Divisions

## Arts \& Sciences and Criminal Justice Division

Martha R. Crawmer, Dean, B.A. St. Olaf College; M.A., University of Minnesota
Susan E. Bayes, Administrative Assistant to the Dean
Nikki Smith, Administrative Support
Susan Thompson, Customer Service Specialist, Theatre Arts
Nancy E. Mitchell, Chemistry/Biology Lab Assistant, A.S. Clark State Community College; B.A., Wittenberg University
Theresa A. Abshear, Instructor, A.A., Clark State Community College; B.A., Ohio University; M.A., Ohio University
Jim E. Anderson, Professor, A.A.S., Clark State Community College; B.S., M.S., Wright State University
Judith A. Anderson, Professor, B.A., Valparaiso University; M.A., Texas A \& M University

David A. Anon, Police Academy Commander, A.A.S., Clark State Community College
Christopher R. Bays, Instructor, B.A., Berea College; M.A., Wright State University
Laurie E. Buchanan, Associate Professor, B.A., M.A., Ph.D., Bowling Green State University
Michelle S. Burch, Assistant Professor, A.A., Black Hawk Community College; B.A., M.A., University of Illinois
Thomas E. Drerup, Assistant Professor, A.A., Sinclair Community College; B.A., Wright State University; M.S., Central Michigan University
Dee A. Garwood, Instructor, B.A., Graceland University; M.S.W., The Ohio State University

Mildred V. Hall, Associate Professor, B.S., University of Pittsburgh; A.B.D., Virginia Polytechnic Institute and State University
Brian M. Heaney, Professor, B.A., Yale University; M.A., The Ohio State University
Cecilia J. Kennedy, Instructor, B.A., Ohio Wesleyan University; M.A., The Ohio State University; Ph.D., The Ohio State University
Lynn M. Mealy, Professor, B.A., Marian College; M.Ed., Wright State University
David W. Miller, Associate Professor, M.S., Wright State University; Ph.D., The Ohio State University
Jerome Murray III, Instructor, B.A., Wabash College; M.A., Indiana University
Fabian Novello, Assistant Professor, B.A., University of Illinois; M.S., Purdue University

Jeffrey W. Reed, Assistant Professor, A.L.B., Harvard University; M.A., Ph.D., Emory University

Robert T. Sweet, Professor, B.A., Wright State University; M.A., University of Dayton; Ph.D., University of Cincinnati

## Business and Applied Technologies Division

Jane A. Cape, Dean, Assistant Professor, B.A., St. Francis College; M.Ed., Bowling Green State University
Stephanie L. Gaston, Administrative Assistant to the Dean
Patricia A. Dennis, Administrative Support
Paulette Y. Saksa, Administrative Support
Robert J. Adkins, Associate Professor, B.S., M.S., University of Toledo
Teresa R. Campbell, Assistant Professor, B.S., M.B.A., Wright State University
Marilyn J. Carlson, Professor, B.S., Central State University; M.Ed., Wright State University

Susan F. Everett, Professor, B.S., Virginia Polytechnic and State University; M.S., Mississippi State University; Ph.D., Iowa State University

Lawrence B. Everett, Associate Professor, B.S., Iowa State University, M.B.A., University of Missouri-Columbia; M.S, Ph.D., Iowa State University
John O. Hale, Instructor, B.S., Park College; M.S., Central Michigan University
Dan J. Heighton, Professor, B.B.A., University of Cincinnati; M.B.A., Wright State University

Robyn M. Hennigan, RPR, CRI, Instructor, A.A.B., Clark State Community College
Patrick S. Jacobs, Instructor, A.S., Clark State Community College
Thomas R. Oliver, Assistant Professor, B.S., Bethany College; M.B.A., University of Cincinnati

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[^0]:    *Students accepted to or enrolled in the Medical Laboratory Technology associate degree program should take MLT 101 and MLT 102 instead of BIO102.

[^1]:    *Humanities elective meeting Global Awareness requirement.

