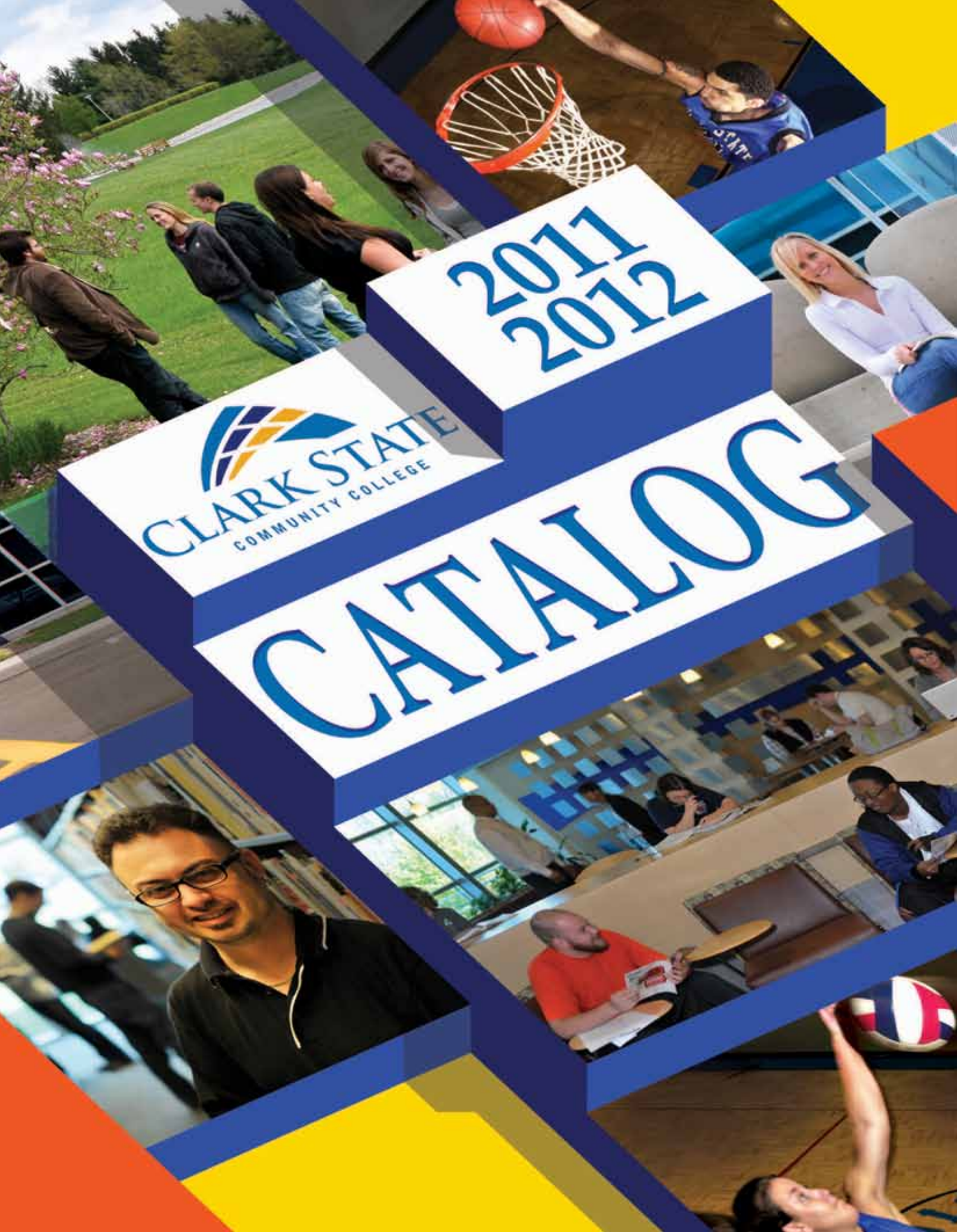


2011  
2012

 CLARK STATE  
COMMUNITY COLLEGE

CATALOG



**SUMMER QUARTER 2011 June 20 - August 26, 2011**

<b>May 9-13</b>	Priority registration – Students enrolled and students any of the previous four quarters
<b>May 16</b>	Open registration begins
<b>May 30</b>	College Closed for Memorial Day
<b>June 3</b>	Last day to pay without late fee for students enrolled in Summer Quarter
<b>June 8</b>	Last day to pay for students enrolled in Summer A/C/D
<b>June 10</b>	General registration 8:00 a.m.-5 p.m. Records Office, Rhodes Hall Room 220 Payment is due at time of registration
<b>June 13</b>	Mature Citizens and SOCHE registration begins
<b>June 18</b>	Registration and payment; offices open 9 a.m.-12 p.m. Greene Center offices open 9 a.m.-12 p.m.
<b>June 20</b>	Summer A/C/D begin
<b>June 21</b>	Last day to register/add for Summer A, C, and D Payment due at time of registration
<b>July 4</b>	College closed for Independence Day
<b>July 13</b>	Last day to drop with a “W” for Summer A
<b>July 21</b>	Last day to pay for Summer B
<b>July 22</b>	Summer A ends
<b>July 25</b>	Summer B begins
<b>July 26</b>	Last day to register/add for Summer B
<b>Aug 1</b>	Last day to drop with a “W” for Summer C
<b>Aug 5</b>	Last day to drop with a “W” for Summer D
<b>Aug 16</b>	Last day to drop with a “W” for Summer B
<b>Aug 20</b>	Summer C ends
<b>Aug 27</b>	Summer B and D ends

**WINTER QUARTER 2012 January 3 – March 17, 2012**

<b>Nov 4 – 12</b>	Priority registration – Students enrolled and students any of the previous four quarters
<b>Nov 14</b>	Open registration begins
<b>Nov 18</b>	Winter Quarter Short-Term fees due
<b>Nov 28</b>	Winter Quarter Short-Term begins
<b>Dec 9</b>	Last day to pay without late fee for students enrolled in Winter Quarter
<b>Dec 14</b>	Last day to pay fees for Winter Quarter
<b>Dec 16</b>	General registration 8:00 a.m.-5 p.m. Records Office, Rhodes Hall Room 220 Payment is due at time of registration
<b>Dec 17</b>	General registration and payment; offices open 9 a.m.-12 p.m. Records Office, Rhodes Hall Room 220 Greene Center offices open 9 a.m.-12 p.m.
<b>Dec 17</b>	Winter Quarter Short-Term ends
<b>Dec 23-26</b>	College Closed for Christmas
<b>Dec 27</b>	Mature Citizens and SOCHE registration begins
<b>Jan 2</b>	College Closed – New Year’s Day Holiday
<b>Jan 3</b>	Winter Quarter begins
<b>Jan 16</b>	College Closed – Martin Luther King Day
<b>Feb 6 – 10</b>	Midterm week
<b>Feb 17</b>	Last day to drop with a “W” for Winter Quarter
<b>Mar 12 – 17</b>	Final exams
<b>Mar 17</b>	Winter Quarter ends

**FALL QUARTER 2011 September 7 – November 22, 2011**

<b>May 9-13</b>	Priority registration – Students enrolled and students any of the previous four quarters
<b>May 16</b>	Open registration begins
<b>Aug 18</b>	Last day to pay without late fee for students enrolled in Fall Quarter
<b>Aug 24</b>	Last day to pay fees for students enrolled in Fall Quarter
<b>Aug 26</b>	General registration 8:00 a.m.-5 p.m. Records Office, Rhodes Hall Room 220 Payment is due at time of registration
<b>Aug 27</b>	Registration and payment; offices open 9 a.m.-12 p.m. Greene Center offices open 9 a.m.-12 p.m. Payment is due at time of registration
<b>Aug 31</b>	Mature Citizens and SOCHE registration begins
<b>Sept 5</b>	College closed for Labor Day
<b>Sept 7</b>	Fall Quarter begins
<b>Sept 10</b>	Registration and payment; offices open 9 a.m.-12 p.m. Greene Center offices open 9 a.m.-12 p.m.
<b>Oct 10-14</b>	Midterm week
<b>Oct 21</b>	Last day to drop a Fall Quarter class with a “W”
<b>Nov 11</b>	College closed for Veterans Day
<b>Nov 16-22</b>	Final exams
<b>Nov 22</b>	Fall Quarter ends
<b>Nov 24-25</b>	College Closed for Thanksgiving

**SPRING QUARTER 2011 March 26 – June 8, 2012**

<b>Feb 13 - 17</b>	Priority registration – Students enrolled and students any of the previous four quarters
<b>Feb 20</b>	Open registration begins
<b>Mar 9</b>	Last day to pay without late fee for students enrolled in Spring Quarter
<b>Mar 14</b>	Last day to pay fees for students enrolled in Spring Quarter
<b>Mar 16</b>	General registration 8:00 a.m.-5 p.m. Records Office, Rhodes Hall Room 220 Payment is due at time of registration
<b>Mar 19</b>	Mature Citizens and SOCHE registration begins
<b>Mar 24</b>	Registration and payment; offices open 9 a.m.-12 p.m. Greene Center offices open 9 a.m.-12 p.m.
<b>Mar 26</b>	Spring Quarter begins
<b>Apr 30 –</b>	
<b>May 4</b>	Midterm week
<b>May 11</b>	Last day to drop a Fall Quarter class with a “W”
<b>May 28</b>	College Closed - Memorial Day
<b>June 2 - 8</b>	Final exams
<b>June 8</b>	Spring Quarter ends
<b>June 9</b>	Graduation

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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.

More than 5,000 students attended their community's college, Clark State, last year. These students are as diverse as the programs they are studying, ranging in age from late teens to baby boomers. Their reasons for choosing Clark State are simple: great education, convenient location, affordable tuition, online course offerings and credits that transfer to four-year universities.

With more than 80 degree and certificate programs in some of today's most in-demand career fields, you're sure to find the major that is right for you. Clark State continues to be a leader in online learning, offering hundreds of online courses each quarter, as well as online degrees.

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](http://www.clarkstate.edu).

I wish you the best of luck as you move forward toward a college degree and a new and exciting career.

Best Regards,

A handwritten signature in cursive script that reads "Karen E. Rafinski".

Karen E. Rafinski, Ph.D.

This Catalog was prepared prior to the 2011-2012 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, devotion to quality education, affordability or 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 progressive learning institution it is today. It will also give you valuable insight into our mission, and how we can help you achieve your academic goals.

### 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 four-year 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 80 degree 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

Opportunity without boundaries, learning without end, achievement without limits.

### Mission

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

#### Student Success

- Learners achieve their goals by acquiring the knowledge and skills needed to prosper in the 21st century economy.
- Students are successful in transferring to further education consistent with skills attained and personal goals.
- Students achieve their educational and career goals.
- Students become lifelong learners through participating in opportunities for personal and professional growth.

#### Workforce Development

Employers' workforce skill demands and training needs are met, thus supporting area economic development.

#### Access/Opportunity

Barriers to accessing education and training are minimized for a diverse student population.

#### Community Development

The community recognizes the College as an integral partner in advancing the quality of life.

### Guiding Principles

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

- Place learners first.
- Trust, respect and care for those with whom we work and serve.
- Embrace and value the diverse communities we serve.
- Seek to improve continuously.
- Act as good stewards of the resources with which we are entrusted.
- Create synergy through partnerships.
- Aspire to be innovative and creative.
- Celebrate the accomplishments of our College community.

# Assessment of Student Academic Achievement

## Improving Student Learning

The Board of Trustees, faculty and staff affirm that 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's main campus location is in Springfield, Ohio. Clark State also has satellite locations in Beavercreek, Bellefontaine, and in several high schools in the four-county service district. The Springfield campus has two locations: the Leffel Lane Campus at 570 East Leffel Lane, situated on the southern border of Springfield just north of Interstate 70, and the Downtown Campus located in the heart of downtown Springfield at 100 South Limestone Street. Major city streets and city bus service provide easy travel between campuses. You will find our easy-to-follow campus maps on the inside of the back cover. The Clark State Greene Center is located in Beavercreek in Hobson Hall in the College Park development at 3775 Pentagon Blvd. The Clark State satellite location in Bellefontaine is on the campus of Ohio Hi-Point Career Center at 2280 State Route 540.

## Online Learning

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.

Clark State offers almost 250 online and hybrid courses. In online courses, all instructional and lab activities are completed in an online environment. Online courses require no visits to campus; however, students may be required to use a proctored testing facility. Hybrid courses combine the elements of the traditional face-to-face classroom and online instruction. These hybrid courses require attendance at scheduled sessions on campus or at clinical locations for lectures, labs or clinical experiences. The time spent on campus is generally 50% less than for traditional courses; the remainder of the time is spent in the online environment. The College also offers self-paced and directed-learning courses. In self-paced courses, the

students set their own pace and can take up to two quarters to complete their coursework.

Directed-learning courses are self-paced courses except that class work must be completed on Clark State's campus using the provided Directed-Learning Lab and its resources.

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.

Online courses and programs have full approval from The Higher Learning Commission. It is recommended that students interested in online or hybrid coursework take the SmarterMeasure assessment. It helps students determine their readiness and potential for success in an online learning environment. Additional information can be found on the Online Learning website at [www.clarkstate.edu/online\\_learning.php](http://www.clarkstate.edu/online_learning.php).

## Accreditations/Approvals

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

The Realtime/Judicial Reporting and Broadcast Caption/CART programs are accredited by the National Court Reporters Association, 8224 Old Courthouse Road, Vienna, VA 22182-3808. Telephone: (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. Telephone: (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) 466-3947 or online at [www.nursing.ohio.gov](http://www.nursing.ohio.gov) and accredited by the National League for Nursing Accrediting Commission, Inc., 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326. Telephone: 404-975-5000 or online at [www.nlnac.org](http://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, OH 43215-7410. Telephone (614) 466-3947 or online at [www.nursing.ohio.gov](http://www.nursing.ohio.gov).

The Medical Assisting Certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, FL, 33756. Telephone (727) 210-2350, Fax (727) 210-2354, [www.caahep.org](http://www.caahep.org).



The Medical Laboratory Technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 5600 North River Road, Suite 720, Rosemont, IL.

60018. Telephone: (773) 714-8880 or online at [www.naacls.org](http://www.naacls.org).

The Paramedic program (#398-OH) is accredited by the Ohio Department of Public Safety Services, Division of Emergency Medical Services, 1970 West Broad Street, Columbus, Ohio 43218-2073. Telephone (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: (800) 999-2782, or online at [www.apta.org/education](http://www.apta.org/education).

## 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). Programs designated with a  are also available at the Greene Center campus in Beavercreek ; programs with a  are available only at the Greene Center campus in Beavercreek.

### Agriculture Technologies

**Agricultural Business Technology** AAB

Agricultural Engineering Technology Option AAS

#### Horticultural Industries

Golf Course Operations Option AAS

Landscape Design Option AAS

Nursery Operations Option AAS

Parks and Recreation Operations Option AAS


Turf and Landscape Operations Option AAS

### Arts & Sciences

**Career and Technical Education** ATS

**Graphic Design Technology** AAB

## Business Technologies

**Accounting Technology** AAB 

**Advanced Technical Intelligence** AS 

**Computer Networking Technology** AAB


Technical Systems Support Option AAB


**Computer Software Development Technology** AAB 


**CyberSecurity/Information Assurance Technology** AAS

**GIS/Geospatial Technology** AAS 


**Information Services Library Paraprofessional** AAS


**Judicial Court Reporting** AAB 

Broadcast Captioning/CART Option AAB 


**Paralegal Technology (1st year)** AAB 

**Professional Services Management** ATS 

**Management Technology** AAB 


Human Resource Management Option AAB 

Logistics and Supply Chain Management Option AAB 

Marketing and E-Business Option AAB 

#### Office Administration Technologies

**Medical Office Administration Major** AAB 

Professional Office Administration Technology AAB 

## Industrial & Engineering Technologies

**Computer-Aided Design Technology** AAS

**Industrial Technology** AAS

**Manufacturing Engineering Technology** AAS

**Mechanical Engineering Technology** AAS

## Health & Human Services Technologies

**Early Childhood Education** AAS

**Medical Assisting** AAS

**Medical Laboratory Technology** AAS

**Nursing Transition LPN to RN** AAS

**Nursing Transition Paramedic to RN** AAS 

**Physical Therapist Assistant Technology** AAS

**Registered Nursing Technology** AAS

**Registered Nursing Technology - Evening** AAS

**Social Services Technology** AAS

## Public Services Technologies

Criminal Justice Technology	AAS	
Basic Police Officer Training		
Corrections Technology	AAS	
Emergency Medical Services/Paramedic Technology	AAS	
Firefighter Training		

## Certificate Programs

Accounting Certificate	
Computer-Aided Design Certificate	
Electrical Maintenance Certificate	
Firefighter Level I	
Firefighter Level II	
Management Certificate	
Manufacturing Certificate	
Medical Assisting Certificate	
Multi-Skilled Healthcare Certificate	
Photography Certificate	
Practical Nursing Certificate	
Professional Office Administration Certificate	

## Departmental Certificates

Advanced Medical Coding Certificate	
Advanced Technical Intelligence Certificate	
Agriculture Business Certificate	
Agriculture Engineering Technology Certificate	
Agriculture Equipment Certificate	
Agriculture Pest Certificate	
Chemical Dependency Certificate	
Child Development Associate (CDA) Certificate (every other year)	
Communication Certificate	
Computer Programming Certificate	
Customer Service Certificate	
CyberSecurity Certificate	
Electrocardiography Certificate	
Electronics Certificate	
EMT-Basic Certificate	
EMT-Intermediate Certificate	
Fire Training Certificate	
GIS Certificate	
Human Resources Management Certificate	

Judicial Reporting Scopist Certificate	
Landscape Design Certificate	
Logistics and Supply Chain Management Certificate	
Marketing E-Business Certificate	
Medical Coding Certificate	
Medical Transcription Certificate	
Network Administration Certificate	
Network Infrastructure Certificate	
Nurse Aide Certificate	
Paramedic Certificate	
Paramedic Certificate for RN	
Parks and Recreation Operations Certificate	
Patient Care Technician Certificate	
Phlebotomy Certificate	
Small Business Certificate	
Supervisory Certificate	
Technical Support Certificate	
Theatre Arts Administration Certificate	
Turf Certificate	
Web Development 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 inter-disciplinary 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 division administrator.

An Associate of Technical Studies program must contain at least 21 credit hours of basic courses, 23 credit hours of nontechnical 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 do the following:

- 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, you will also be required to take at least one of these four general education courses that 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	General Economics*
GEO 110	World Human Geography (GA)
GEO 220	World Regional Geography (GA)
PLS 110	American National Government
PLS 120	American Issues
PLS 130	Political Issues (GA)
PLS 220	Constitutional Law
PLS 230	International Politics (GA)
PSY 111	Psychology I
PSY 112	Psychology II

PSY 221	Human Growth and Development
PSY 223	Lifespan Human Growth and Development
PSY 230	Abnormal Psychology
RST 260	Regional Studies: Asia-China (GA)
RST 262	Regional Studies: Asia-India (GA)
RST 270	Regional Studies: Africa (GA)
RST 280	Regional Studies: Latin America (GA)
SOC 110	Sociology
SOC 220	Comparing Cultures (GA)
SOC 230	Social Problems
SOC 240	Racial and Cultural Minorities (GA)
SOC 250	Sociology of Poverty

### Humanities

ART 130	Appreciation of the Arts (GA)
ART 133	Art History I (GA)
ART 134	Art History II (GA)
ART 135	Art History III (GA)
ART 138	Arts of Africa (GA)
COM 111	Interpersonal Communications
COM 121	Public Speaking
ENG 130	Introduction to Literature (GA)
ENG 225	Creative Writing
ENG 230	Great Books: World Literature (GA)
ENG 231	Great Books of World Literature: Honors (GA)
ENG 241	Poetry (GA)
ENG 243	Fiction (GA)
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
HST 220	Topics in African-American History and Culture (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	Survival Spanish (GA)
THE 105	Oral Interpretation of Literature
THE 130	Introduction to Theatre (GA)
THE 133	Script Analysis
THE 241	Theatre History I (GA)
THE 242	Theatre History II (GA)
THE 243	Theatre History III (GA)

\*ECO 110 cannot be used as a general education elective for the Accounting, Human Resource Management, Logistics and Supply Chain Management, Management or Marketing and E-Business programs.




# Transfer Options






Students commonly combine credits to reach an academic goal, such as an associate degree or a baccalaureate degree. Transferring credit includes the mobility between high school and college institutions; between two or more colleges; for example, community college to community college, or between a community college and a four-year institution. For the high school student, it may include transferring college credit received during high school to an institution of higher education. This may have been accomplished through Tech Prep, Post Secondary Educational Opportunities (PSEO), College in the Classroom (CITC), or articulated credit from a Career Center.

Many students who begin their college career at Clark State Community College (CSCC) intend to eventually transfer their CSCC credits to a university to obtain a baccalaureate degree. Our transfer degree programs are designed to fulfill many of the pre-major and general education requirements of the first two years of a traditional four-year or baccalaureate degree. The Associate of Arts degree or the Associate of Science degree at Clark State Community College are transfer degrees and are designed to facilitate that process. The General Transfer options within the Associate of Arts and Associate of Science degrees are flexible, allowing students to choose their individual courses from within certain predetermined categories or areas (see Degree Program section). Because of this flexibility students should consult carefully with their intended transfer destination to ensure optimal transfer of Clark State credits to another institution. Information in the Ohio Transfer Module (OTM), the Transfer Assurance Guidelines (TAGS), Career Technical Assurance Guidelines (CTAGS) and U. Select explains in detail how to use these advising tools to choose courses for a seamless transition to the transfer institution. In addition, Clark State has developed university parallel transfer degrees through articulation agreements with most four-year colleges and universities in the area.

Programs designated with a  are also available at the Greene Center campus in Beaver Creek.

Programs with a  are available only at the Greene Center campus in Beaver Creek.

Specific degrees and transfer plans with the Associate of Arts and Associate of Science degrees include:

- Associate of Arts 
- Associate of Arts - Honors Concentration
- Associate of Science 
- Associate of Science - Honors Concentration
- Aviation Technology Concentration
- Aviation Technology Pilot Flight Certificate
- Business Transfer - Wright State University 
- Chemistry Transfer – Wright State University
- Engineering Transfer 
- English Transfer – Wright State University 

- Math Transfer – Wright State University 
- Physics Transfer – Wright State University 
- Psychology Transfer - Wright State University (Bachelor of Arts) 
- Psychology Transfer - Wright State University (Bachelor of Science) 
- Social Work Transfer - Wright State University 
- Teacher Education Transfer Concentration
- Teacher Education Transfer Early Childhood Education Transfer 
- Teacher Education Transfer Middle Child Language Arts/Social Studies- Wright State University 

Students who seek an Associate of Applied Business degree or Associate of Applied Science degree do so to readily obtain employment with skills gained in CSCC technical courses/curriculum. While these programs are not necessarily designed to transfer to most four-year institutions/universities, there are specific universities that have developed baccalaureate degrees to accommodate the AAB and AAS students. Clark State has developed articulation agreements with many of these universities.

All students should work with their academic advisor initially and then their faculty advisor to develop academic goals, including quarterly schedules that would facilitate a timely transition to a four-year institution.

Clark State Community College also serves students whose goal it is to obtain occasional credit to transfer back to a home institution. This is referred to as transient coursework. Interested students should meet with their home institution's academic advisor to select the appropriate coursework from CSCC. Upon enrolling in CSCC, an academic advisor, as well as the Records and Registration office, will assist the student with necessary documentation.

## The following information can be found in this section:

### Guidelines for Effective Transfer

#### U. Select

#### Transfer Guides for Local Universities Institutional Transfer

#### Transfer Module (OTM)

#### Transfer Assurance Guidelines (TAGS)

#### Career Technical Assurance Guides (CTAGS)

#### Transfer Admission

#### Acceptance of Transfer Credit

#### Student Responsibilities

#### Appeals Process

#### Transferring Credit to Clark State

## Guidelines for Effective Transfer

You should determine the four-year college or university to which you will transfer and your prospective major as early as possible in your academic program. Then request a catalog from the prospective transfer institution early and become familiar with its admissions policies, scholarship options/ deadlines and degree requirements. Generally, you will 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. A minimum of 92 credit hours are required to graduate with a Clark State Associate of Art or Associate of Science degree. Work with an advisor and sign up for appropriate courses each quarter.

The primary purpose of the AA and AS degree is to provide transfer credit to four-year colleges and universities. Students regularly transfer to other institutions in areas such as Business, Psychology, English, Theatre, Sociology, Urban Affairs, Art, Agriculture, Education, Engineering Sciences and Engineering Technologies.

More than half of the CSCC 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.

Clark State Community College has transfer agreements with the following four-year institutions for students completing AA and AS transfer degrees and/or students completing AAS and AAB Technical degrees.

- Antioch University Midwest
- Bluffton University
- Capital University
- Central State University
- Defense Acquisition University
- DeVry Institute of Technology
- Franklin University and Franklin University Community College Alliance Programs
- Kaplan
- Miami University, College of Applied Science
- Miami University, Hamilton/Middletown
- Mount Vernon Nazarene University
- Ohio Dominican University
- The Ohio State University
- Ohio University
- Park University
- Strayer
- University of Cincinnati, UC College of Business
- University of Phoenix
- University of Toledo
- Urbana University
- Wilberforce University
- Wittenberg University
- Wright State University

## U. Select


Clark State Community College is a member of U. Select. Information about the transferability of Clark State Community College's credit hours may be found by accessing U. Select at CAS at <https://oh.transfer.org/uselect/>. Students interested in transferring credits to Clark State Community College may access U. Select to determine credit equivalency. Please note that not all colleges/universities are listed in U. Select. To verify credit transferability, please submit your official transcripts to the Admission's Office, Clark State Community College, PO Box 570, Springfield, Ohio 45501. The U. Select was developed as an online tool that serves as a gateway to participating institutions' automated degree audit and transfer articulation systems. Upon creating a free account in U. Select, students and/or parents may view course equivalencies, see program requirements, enter and store coursework and request an evaluation of transfer work toward a specific program.











## Wright State University - Transfer Options

Wright State University has developed the following articulation (transfer) agreements. These agreements outline which courses students should take in order to complete an associate degree at their current institution and to transfer into the specific major(s) indicated on the agreement.

- Anthropology
- Art/Art History
- Biological Science
- Biomedical Engineering
- Business
- Business Education
- Chemistry
- Clinical Lab Science
- Communication
- Computer Science (Bioinformatics & Business options)
- Early Childhood
- Electrical Engineering
- Engineering Physics
- English Education
- Environmental Sciences
- Exercise Biology
- Geography or Urban Affairs
- Health and Physical Education
- History
- Industrial and Systems Engineering
- Liberal Arts
- Mathematics
- Mechanical Engineering
- Middle Childhood Education
- Middle Childhood Education Concentration in Language Arts
- Nursing
- Nursing Completion
- Organizational Leadership
- Physics
- Political Science
- Psychology
- Rehabilitation Services

- Social Sciences Education
- Social Work
- Sociology
- Urban Affairs

In addition to these transfer guides, Clark State and Wright State have developed curriculum-specific transfer guides for the following degrees. These guides are included in the degree programs section of the Catalog. Programs designated with a  are also available at the Greene Center campus in Beavercreek.

- Pre-Business 
- Pre-Chemistry
- Pre-English 
- Pre-Mathematics 
- Pre-Physics+ 
- Pre-Psychology (BA) 
- Pre-Psychology (BS) 
- Pre-Social Work 
- Pre-Teacher Education, Middle Child 
- Language Arts/Social Studies 
- Pre-Teacher Education, Middle Child Math/Science 

## Franklin University - Transfer Options

Through a special alliance with Franklin University, graduates of technical programs (Associate of Applied Business or Associate of Applied Science degrees) at Clark State can complete a Bachelor of Science degree online with the completion of a selected number of additional bridge courses at Clark State and 40 semester hours (the equivalent of approximately 1½ years) at Franklin. All Clark State courses are referred to as bridge courses and all Franklin courses are referred to as completion courses. Clark State graduates who are part of the Alliance program are able to continue using the Clark State library, computer labs, and other resources while they continue their studies at Franklin University.

With this program, a student completes an associate degree at Clark State in a technical area such as management, manufacturing engineering technology, physical therapist assistant, corrections or any of our other applied programs.

The student then determines which of 16 different majors he or she would like to pursue at Franklin. A student also completes any additional bridge courses at Clark State that he or she has not already taken—all at Clark State prices. The following Clark State courses are part of the general education bridge for most Franklin University majors:

ENG 111	English I	4
ENG 112	English II	4
ENG 221	Business Communication	or
ENG 223	Technical Report Writing	3
ECO 221	Macroeconomics	or
ECO 222	Microeconomics	3

COM 111	Interpersonal Communication	or
COM 121	Public Speaking	3
ITS 12D	Beginning Database	1
ITS 12S	Beginning Spreadsheet	1
STT 264	Statistics I	4
MTH 121	College Algebra I	3
---	Science Elective (chemistry, physics, biology, geology)	
---	Social/Behavioral Science Elective (sociology, psychology, political science)	
---	Humanities Elective (ethics, philosophy, literature)	

The following Clark State courses are part of the business core bridge for most Franklin University majors that require a business core:

ACC 111	Principles of Accounting I	4
ACC 112	Principles of Accounting II	4
ACC 113	Principles of Accounting III	4
MGT 112	Principles of Management	4
MKT 200	Principles of Marketing	4
MGT 260	Legal Environment of Business	3
MGT 270	Business Finance	4

Each Franklin University major also identifies specific Clark State courses as part of the technical or major area bridge. A few majors include additional general education bridge courses. All other courses taken as part of the associate degree at Clark State become part of the elective bridge courses.

Students can find a separate Bridge and Completion Guide for each Franklin University major on the Clark State website. Students should consult with their academic advisor or the Transfer and Articulation Specialist for assistance with these guides. The majors currently available at Franklin University via this alliance include the following:

- Accounting
- Applied Management
- Business Administration
- Business Forensics
- Computer Science
- E-Marketing
- Financial Management
- Forensic Accounting
- Healthcare Management
- Human Resources Management
- Information Technology
- Management
- Management Information Sciences
- Marketing
- Public Safety Management
- Web Development

## Urbana University - Transfer Options

Clark State Community College students may transfer credits to Urbana University through the traditional general education pathway by completing the Associate of Arts or Associate of Science degrees or through Associate of Applied Business or Associate of Applied Science degrees for the School of Adult and Graduate Education.

Urbana University's Bachelor of Science Completion Programs are grounded in adult education theory, offer direct admission to upper division studies with block credit granted for professional courses completed as part of an applied associate degree. No challenge exams or prior knowledge validations are required. A professional license/certification in the respective discipline confirms the student's readiness to undertake a degree completion program.

Urbana University's Seamless Alliance Program outlines the courses that a student needs to successfully complete, based on the Associate degree they have earned, for a Bachelor of Science Degree from Urbana University. Seamless articulation agreements are available in the following Clark State programs:

- Associate of Applied Science in Nursing to Urbana University's degree completion for Bachelor of Science in Nursing
- Associate of Applied Science in Physical Therapy Assistant to Urbana University's degree completion for Bachelor of Science in Healthcare Management
- Associate of Applied Science in Medical Laboratory Technology to Urbana University's degree completion for Bachelor of Science in Healthcare Management
- Associate of Applied Business in Accounting to Urbana University's Bachelor degree completion for Bachelor of Science in Business - Accounting
- Associate of Applied Business in Management to Urbana University's Bachelor degree completion for Bachelor of Science In Business - General Management
- Associate of Applied Business in Human Resource Management to Urbana University's Bachelor degree completion for Bachelor of Science in Business - Human Resource Management
- Associate of Applied Business in Marketing to Urbana University's Bachelor degree completion for Bachelor of Science in Business - Marketing
- Associate of Applied Business in Management to Urbana University's Adult Education Bachelor degree completion for Bachelor of Science in Business Management with an emphasis in Organizational Leadership
- Associate of Applied Science in Criminal Justice to Urbana University's Adult Education Bachelor degree completion for Bachelor of Science in Criminal Justice Leadership
- Associate of Applied Science in Social Service Technology to Urbana University's Adult Education Bachelor degree completion for Bachelor of Science in Human Services Leadership

## Antioch Midwest - Transfer Options

Antioch Midwest is a campus of Antioch University, which is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. Antioch Midwest offers Bachelor of Arts degrees through its degree completion program.

Clark State Community College and Antioch Midwest have developed an articulation agreement for students who earn an Associate degree from Clark State and wish to continue their undergraduate education. The purpose of the agreement is to provide a smooth curricular transition for students, allowing them to transfer from Clark State to Antioch Midwest without loss of credits or duplication of coursework.

Antioch Midwest offers the following Bachelor of Arts degrees.

- Early Childhood Education
- Health and Wellness
- Human Development
- Human Services Administration
- Humanities
- Management
- Project Management (Certificate)

## Wittenberg University - Transfer Options

Wittenberg University is a nationally recognized college for the liberal arts and sciences affiliated with the Evangelical Lutheran Church in America. Wittenberg University provides a liberal arts education dedicated to intellectual inquiry and wholeness of person within a diverse residential community. Reflecting its Lutheran heritage, Wittenberg challenges students to become responsible global citizens, to discover their callings, and to lead personal, professional, and civic lives of creativity, service, compassion, and integrity. Eligible students will enter Wittenberg through one of two pathways, traditional or adult. Clark State students should consult their academic advisor for more information.

Traditional entrance is designed for students 22 years old or younger. Interested Clark State students should have completed an Associate of Arts or Associate of Science degree. The LEAD program is the adult/non-traditional gateway into Wittenberg, whether for Evening/Weekend or Day study (or both). Through this program a Clark State Community College student may pursue studies toward the fulfillment of personal and career goals.

## Bluffton University - Transfer Options

Bluffton University is a liberal arts university in northwestern Ohio founded in 1899 and affiliated with Mennonite Church USA. Shaped by that historic peaceful church tradition, and nourished by a desire for excellence in all phases of its programs, Bluffton University seeks to prepare students of all backgrounds for life as well as vocation, for responsible citizenship, for service to all peoples and ultimately for the purposes of God's universal kingdom.

Bluffton University holds a certificate of authorization from The Ohio Board of Regents to confer the degrees of Bachelor of Arts, Bachelor of Science, Master of Arts in Education, Master of Arts in Organizational Management and Master of Business Administration. Bluffton University is accredited by The Higher Learning Commission and a member of The North Central Association.

Bluffton is accredited by the National Council for Accreditation of Teacher Education (NCATE) and approved by the State Department of Education of Ohio for the preparation of teachers at the initial and advanced levels in the regular academic fields and in specialized fields. The social work program is accredited by the Council on Social Work Education at the baccalaureate level, and the dietetics program is accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association. Bluffton University is an accredited institutional member of the National Association of Schools of Music. Clark State students may complete a Bachelor degree at Bluffton either through the accelerated adult degree completion program (BCOMP) or through the traditional undergraduate programs.

Students choosing Bluffton University's Cohort-based Organizational Management Program (BCOMP), an adult accelerated Bachelor degree completion program, will attend classes one night a week at the Brinkman Educational Center of Clark State Community College.

Individualized academic advising and one-stop customer services are provided. Degrees may be completed in as few as four semesters.

### BCOMP Objectives

- To prepare students for managerial-level positions.
- To enhance the skills of students currently holding managerial positions.
- To enable students to capitalize on their work and life experience.
- To help working adults finish their degree through a program that is convenient, structured and tailored to meet their needs.

Students who choose the traditional route are eligible to complete any of the 40-plus majors offered at Bluffton University. Courses required to complete a major will depend on the major completed at Clark State Community College and the major desired for the Bachelor of Arts degree at Bluffton and will be evaluated individually.

## Ohio University - Transfer Options

Ohio University is dedicated to providing opportunities for high-quality higher education to residents across Ohio. The Ohio University Community College Partnership with Clark State Community College helps the university deliver on that promise, bringing baccalaureate degree completion programs to students where they live and work!

Clark State students may take courses from both Ohio University and Clark State to complete a Bachelor degree from Ohio University. The collaboration helps to meet the diverse and unique needs of working professionals who want to advance their education... and their careers.

Discover your promise at Ohio University without having to leave home! Even if you cannot attend classes at any of the six Ohio University campuses, you can become an Ohio University student through our community college partnership programs and experience the environment, the people, the opportunities and the quality education that are Ohio University! Become a Bobcat – meet YOUR potential and reach YOUR dreams .

The following three programs are available:

### Bachelor of Technical and Applied Studies (BTAS)

The Bachelor of Technical and Applied Studies (BTAS) is designed for students who have already completed an associate degree in a technical program (applied science or applied business degree) from an accredited community college, regional campus, or technical college, and who want to further their education by completing the requirements for a baccalaureate degree.

### Bachelor of Criminal Justice

Designed for those who have completed an associate degree in a related field, such as criminal justice or law enforcement, this degree enhances ability to advance a career.

### RN-to-BSN: Bachelor of Science in Nursing

A degree program designed especially for registered nurses (RNs) who want to further their educations and advance their careers by earning a Bachelor degree in nursing.

## Policy of Statewide Articulation Agreement Institutional Transfer

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

### Transfer Module

The Ohio Board of Regents Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university's general education curriculum in AA, AS and baccalaureate degree programs. Students in applied associate degree programs may complete some individual transfer module courses within their degree program or continue beyond the degree program to complete the entire transfer module. The Transfer Module contains the following:

- 54-60 quarter hours or 36-40 semester hours of course credit in English composition (minimum 5-6 quarter hours or 3 semester hours).
- Mathematics, statistics and formal/symbolic logic (minimum of 3 quarter hours or 3 semester hours).
- Arts/humanities (minimum 9 quarter hours or 6 semester hours).
- Social and behavioral sciences (minimum of 9 quarter hours or 6 semester hours).
- Natural sciences (minimum 9 quarter hours or 6 semester hours).

Oral communication and interdisciplinary areas may be included as additional options.

Additional elective hours from among these areas make up the total hours for a completed Transfer Module. Courses for the Transfer Module should be 100- and 200-level general education courses commonly completed in the first two years of a student's course of study. Each state-assisted university, technical and community college is required to establish and maintain an approved Transfer Module.

Transfer Module course(s) or the full module completed at one

college or university will automatically meet the requirements of individual Transfer Module course(s) or the full Transfer Module at another college or university once the student is admitted.

Students may be required, however, to meet additional general education requirements at the institution to which they transfer.

For example, a student who completes the Transfer Module at Institution S (sending institution) and then transfer to Institution R (receiving institution) is said to have completed the Transfer Module portion of Institution R's general education program. Institution R, however, may have general education courses that go beyond its Transfer Module. State policy initially required that all courses in the Transfer Module be completed to receive the benefits in transfer. However, subsequent policy revisions have extended this benefit to the completion of individual Transfer Module courses on a course-by-course basis.

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.

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.

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	Public 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

## Mathematics

Complete a minimum of three quarter hours chosen from the following:

MTH 105	Mathematics and Today's World	3
MTH 120	College Algebra 1A	5
MTH 121	College Algebra I	3
MTH 122	College Algebra II	3
MTH 140	Trigonometry	3
MTH 220	Calculus for the Management, Life and Social Science	5
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 & Humanities

Complete nine quarter hours by choosing either six quarter 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 1700	3
ENG 262	British Literature 1700-Present	3
THE 105	Oral Interpretation of Literature	3
THE 130	Introduction to Theatre	3
THE 133	Script Analysis	3
THE 241	Theatre History I	4
THE 242	Theatre History II	4
THE 243	Theatre History III	4

## Category B

HST 111	Western Civilization through the 14th Century	3
HST 112	Western Civilization from the 14th to the 18th Century	3
HIS 113	Western Civilization from the 19th Century to the Present	3
HST 114	Western Civilization to the 14th Century: Honors	3
HST 121	American History to 1810	3
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 & Behavioral Sciences

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

ECO 110	General Economics	3
ECO 221	Principles of Macroeconomics	3
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 220	Comparing Cultures	3
SOC 230	Social Problems	3
SOC 240	Racial and Cultural Minorities	3
SOC 250	Sociology of Poverty	3

## Natural & 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 141	Evolution, Diversity & Ecology	5
BIO 142	The Human Organism	5
BIO 143	Cell Biology/Genetics	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
*BIO 151	Evolution and Ecology	5
BIO 152	Human and Animal Anatomy	5
BIO 153	Cellular Biology & Genetics	5
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

## Transfer Assurance Guides

Transfer Assurance Guides (TAGS) comprise Transfer Module courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio's university and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent learning experiences across the state's higher-education system. A number of area-specific TAG pathways in the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams.

TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisors at the institution to which a student wishes to transfer should also be consulted during the transfer process. Students may elect to complete the full TAG or any subset of courses from the

TAG. Because of specific major requirements, early identification of a student's intended major is encouraged. For additional information, see [www.regents.ohio.gov/transfer/tagcourses/index.php](http://www.regents.ohio.gov/transfer/tagcourses/index.php).

## Career Technical Assurance Guides (CTAGS)

Career Technical Assurance Guides (CTAGS) serve as advising tools and are part of the statewide course guarantee offered by the career-technical credit initiative. The Ohio Board of Regents and the Ohio Department of Education developed policies and procedures to ensure that students at an adult career-technical education institution or secondary career-technical education institution can transfer agreed upon technical courses completed there (that adhere to recognized industry standards) to any state institution of higher education "without unnecessary duplication or institutional barriers."

## Conditions for Transfer Admission

Ohio residents with associate degrees from state-assisted institutions and a completed, approved Transfer Module shall be admitted to a state institution of higher education in Ohio, provided their cumulative grade point average is at least 2.0 for all previous college-level courses. Further, these students shall have admission priority over out-of state associate degree graduates and transfer students.

When students have earned associate degrees but have not completed a Transfer Module, they will be eligible for preferential consideration for admission as transfer students if they have grade point averages of at least a 2.0 for all previous college-level courses.

In order to encourage completion of the baccalaureate degree, students who are not enrolled in an AA or AS degree program but have earned 60 semester or 90 quarter hours or more of credit toward a baccalaureate degree with a grade point average of at least a 2.0 for all previous college-level courses will be eligible for preferential consideration for admission as transfer students.

Students who have not earned an AA or AS degree or who have not earned 60 semester hours or 90 quarter hours of credit with a grade point average of at least a 2.0 for all previous college-level courses are eligible for admission as transfer students on a competitive basis. Incoming transfer students admitted to a college or university shall compete for admission to selective programs, majors, and units on an equal basis with students native to the receiving institution.

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



## Acceptance of Transfer Credit

To recognize courses appropriately and provide equity in the treatment of incoming transfer students and students native to the receiving institution, transfer credit will be accepted for all successfully completed (D or better) college-level courses completed in and after fall 2005 from Ohio state-assisted institutions of higher education. Students who successfully completed AA or AS degrees prior to fall 2005 with a 2.0 or better overall grade point average would also receive credit for all college-level courses they have passed with a D or better. This policy does not override standards and/or requirements of entrance into specific academic programs. (For example, if native students are required to earn a grade of C or better for a specific course in a major, transfer students must meet the same requirement. The D course would be accepted for transfer credit but it would not be applied to the specific course in the major. [See Ohio Articulation and Transfer Policy, Definition of Passing Grade and Appendix D]).

Pass/fail courses, credit by examination courses, experiential learning courses, and other non-traditional credit courses that meet these conditions will also be accepted and posted to the student record.

## Responsibilities of Students

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Students should use the Transfer Module, Transfer Assurance Guides, Career Technical Assurance Guides, and U. Select for guidance in planning the transfer process. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year.

This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their advisor and the college or university to which they plan to transfer.

## Appeals Process

Following the evaluation of a student transcript from another institution, the receiving institution shall provide the student with a statement of transfer credit applicability. At the same time, the institution must inform the student of the institutions' appeals process. The process should be multi-level and responses should be issued within 30 days of the receipt of the appeal.

## 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 (D or better for courses completed fall 2005 or later). 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. 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 re-evaluate 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 division deans and the Transfer and Articulation Specialist. 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.



# Student Services

2011  
2012

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.

# Getting Started

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 ensure 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 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.

Once you have decided Clark State is the right college for you, there are a few things you need to do to get started.

*The following steps can be accomplished at either Clark State's Leffel Lane Campus located at 570 E. Leffel Lane in Springfield or at the Greene Center Campus located at 3775 Pentagon Blvd. in Beavercreek.*

## Apply for Admission

Sara T. Landess Technology & Learning Center, Room 120, or at the Greene Center. You may also complete an application online at [www.clarkstate.edu/apply](http://www.clarkstate.edu/apply). If you have questions, please contact the Admissions Office at (937) 328-6028, the Greene Center at (937) 429-8819 or [admissions@clarkstate.edu](mailto:admissions@clarkstate.edu).

## Apply for Financial Aid

Rhodes Hall, Room 210. If you need help paying for your education, you must complete a FAFSA (Free Application for Federal Student Aid). If you have questions, please visit the Financial Aid Office. You may also contact them at (937) 328-6034, the Greene Center (937) 429-8819, or [finaid@clarkstate.edu](mailto:finaid@clarkstate.edu). If you have previous college credits to transfer into Clark State, or you are registering for a class that requires prerequisites, the College will need a copy of your college transcripts. If you are entering either of the Realtime Reporting programs, you must also submit your high school transcript to the Admissions Office, P.O. Box 570, Springfield, OH 45501 or to the Greene Center.

## Request that your college transcripts be sent to the Clark State Admissions Office.

If you deliver your college transcripts in person to either campus, be sure those transcripts remain sealed in their original envelopes to retain their "official" status.

## Take the Compass Placement Test

Success Center, Room 117, Sara T. Landess Technology and Learning Center or at the Greene Center. This test will determine the level of classes in which you will have the most success during your first quarter at Clark State. No appointment is necessary. Testing on the Leffel Lane campus is available from 8:30 a.m.-7 p.m., Monday through Thursday and 8:30 a.m.-4 p.m. on Fridays. Testing at the Greene Center is available from 8 a.m.-7 p.m., Monday through Thursday; 8 a.m.-4 p.m. on Friday; and 8:30-11:30 a.m. on Saturday. During the summer, all offices close at 2 p.m. on Fridays at all campuses. Allow yourself 1 ½-2 hours to take the tests. Testing may not be necessary if you have transfer English and math college courses or adequate ACT or SAT scores. Your transcripts or scores must be on file at the time of registration. You may contact the Success Center at (937) 328-3847, (937) 429-8819, or [successcenter@clarkstate.edu](mailto:successcenter@clarkstate.edu).

## Attend Orientation

Orientation will help you navigate your education at Clark State and assist you in making the transition to a college environment. Orientation will allow you to explore and utilize pertinent campus resources, services and technologies. You will have the chance to meet other new students, faculty and staff. You can register for orientation online at [www.clarkstate.edu/new\\_student/orientation\\_registration.php](http://www.clarkstate.edu/new_student/orientation_registration.php) or by calling (937) 328-6084 or (937) 429-8819.

### You will complete the following at orientation:

- Meet with our advising staff members who will help you decide on your first quarter schedule.
- Obtain your schedule and invoice from the Records and Registration Office – Rhodes Hall, Room 220 or at the Greene Center. You may contact the Records and Registration Office at (937) 328-6015, (937) 429-8819 or [records@clarkstate.edu](mailto:records@clarkstate.edu).
- Pay for or arrange for payment of your classes in the Cashier's Office – Rhodes Hall, Room 211 or at the Greene Center. Payment may be submitted in person or with a credit card at (937) 328-6048, (937) 429-8819, or [cashier@clarkstate.edu](mailto:cashier@clarkstate.edu).
- If you need help paying for your classes, you can attend an optional Financial Aid session.
- If you self-pay, you can bring your class schedule to the bookstore and purchase your books. If you are receiving financial aid to help pay for your books, you must bring photo ID. The bookstore is located in Rhodes Hall, Room 103 and at the Greene Center. You may contact the bookstore at (937) 328-6099, (937) 429-8918, or (937) 429-8819, or [bookstore@clarkstate.edu](mailto:bookstore@clarkstate.edu).
- Pick up your parking pass request form from the bookstore Cashier at the Leffel Lane campus or at the Greene Center. Parking passes must be displayed in your vehicle when you are using Clark State's parking lots. Parking is FREE.

## Obtain your student ID

You may obtain your ID in Rhodes Hall, Room 220 or at the Greene Center. Two weeks after the start of the quarter, photo IDs are taken in the Records and Registration Office and at the Greene Center. Please bring an existing photo ID with you.

## Have your Student ID Validated

You may have your student ID validated at the Library, Sara T. Landess Technology and Learning Center, Room 122 or at the Greene Center. Your validated student ID will allow you to access and check out materials at the Clark State Library and the Wright State University Paul Dunbar Library. You may contact the Clark State Library at (937) 328-6022 or library@clarkstate.edu.

## Undecided about your Major or Need Help Finding a Job or Career advice?

If you are undecided about your major or need help finding a job or career advice, visit our Office of Career Management located in the Sara T. Landess Technology and Learning Center, Room 110. You may also contact them at (937) 328-6093 or careers@clarkstate.edu. If you would like to schedule an appointment with Career Management at the Greene Center, indicate this preference when you contact the Office.

# What Kind of Student Are You?

## Adult Student

For an adult student, school is probably just one of many responsibilities that you will have to keep track of during your normal day. Clark State will work with your busy schedule by offering flexible day and evening class schedules at our four campus locations or online with over 150 courses offered quarterly, so that you can maintain your career, family, and home. Clark State offers over 80 programs and certificates both credit and non-credit that will assist you with your transition into college or help you start on the path to a new career. We encourage you to take full advantage of our services for adult students that include academic advising, financial aid and scholarships, veterans services and career management to name a few. Additional information on entrance requirements and services can be obtained through the Admissions Office at (937) 328-6028 or (937) 429-8819.

## High School Student

High school students have a variety of options to earn college credits before they graduate. To learn more about becoming a Clark State student while you are still in high school, contact your high school guidance counselor or the Admissions Office at (937) 328-6028 or (937) 429-8819.

- Post-Secondary Enrollment Option (PSEO)
- College in the Classroom (CITC)
- College Tech Prep
- Advanced Placement
- International Baccalaureate
- Seniors to Sophomores
- Jump Start Option

## Post-Secondary Enrollment Option (PSEO)

### Program Student

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 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 information and entrance requirements.

High school students who are not enrolled in the Post-Secondary Enrollment Option Program (PSEO) and are seeking to enroll at Clark State should refer to the Jump Start Option instructions.

## College in the Classroom (CITC)

Clark State's College in the Classroom (CITC) program creates partnerships with local high schools by awarding college credit to high school students who are in courses determined to be college-level and taught by appropriately credentialed high school teachers.

High school students attend class at their high school and receive high school credit and college credit at the same time in a wide variety of subjects.

Your high school counselors can help you decide if the classes you are taking meet the Clark State requirements for credit and can facilitate your enrollment.

CITC students earn Clark State college credit at a reduced tuition rate of \$25 per credit hour and this credit is transferable to many two-year and four-year colleges and universities in Ohio.

All CITC course final grades will be based on the final letter grade the student receives in the high school class. Grades will be calculated according to the high school teacher's standards. This is the grade that will show on the official college transcript. The Admissions Office can provide you with additional information and entrance requirements.

## Seniors to Sophomores

Seniors to Sophomores provides college-ready seniors the opportunity to earn up to a year's worth of college credit by the time they graduate from high school. This program provides a pathway for a senior in high school to potentially start college as a sophomore.

To be eligible, seniors must meet these requirements:

- Pass all parts of the Ohio Graduation Test.
- Complete Algebra II or the equivalent with a C or better.
- Complete three years of high school English with Cs or better.
- Score as college-ready on the college partner's placement assessment (test into ENG III on Compass – same as PSEO).

## College Tech Prep Student

Ohio College Tech Prep prepares students for high-skill, high-demand technical careers in a competitive global economy. Ohio College Tech Prep includes technical training and skills that emphasize hands-on learning, teamwork and problem solving to get you ready for college. Clark State offers pathways in:

- Agriculture/Landscape/ Turf Management
- Computer Aided Design
- Criminal Justice
- Digital Media
- Early Childhood
- Engineering Technologies
- Financial Services
- Geographic Information Systems (GIS) and Geospatial Technologies
- Graphic Design
- Health Occupations/Nursing/Physical Therapy Assistant
- High School of Business
- Medical Assisting
- Networking
- Office Administration
- Supply Chain Management
- Software Design
- Teaching Professions
- Project Lead the Way

College Tech Prep Scholarships to Clark State Community College are available for eligible high school students. For more information contact Clark State at (937) 328-3882.

## Jump Start Option

High school students who are not participating in the Post-Secondary Enrollment Option (PSEO) Program or Seniors-to-Sophomores can still enroll in college classes on Clark State's campus while in high school. Students interested in this option must be at least 15 years of age and have completed ninth grade. All costs associated with attending college classes under this option are the responsibility of the student and his or her parents or guardian. For more information please contact the Admissions Office or the Greene Center.

## New Student

If you are a new student who has never attended a college, you need to take the placement test and attend Orientation. 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 coursework.

## Transfer Student

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. Official transcripts must be mailed directly from the college, or hand-carried, sealed

and unopened, to the Clark State Admissions Office or to the Greene Center.

## Active WPAFB Military Personnel

If you are military personnel with active orders from Wright-Patterson Air Force Base with a military badge, you are eligible for our special reduced tuition rate of \$45 per credit hour. You may take the required general education courses at Clark State and transfer them back to the Community College of the Air Force (CCAF) and apply them to your associate degree. You may also transfer your credits from CCAF to one of the many Clark State degree programs.

You may choose to begin your bachelor's degree by completing an Associate of Arts or Associate of Science transfer degree at Clark State. You may opt to complete one of our fail-safe transfer degrees and begin as a junior at Wright State University. Or you may complete our Transfer Module set of courses and transfer those courses to the college/university of your choice.

You may be interested in one of our technical degrees or certificates in business, technology, criminal justice, or allied health. For more information, call the Greene Center at (937) 429-8913 or the Springfield Campus at (937) 328-6014.

## Veteran

If you are a veteran or a dependent of a veteran, you may qualify for educational benefits. If you have served in the military, Selected Reserve, or National Guard, financial assistance for college may be available. An academic advisor specializing in educational benefits for veterans will assist students who qualify for this type of assistance to cover the expense of college tuition.

Our advisors will help you complete the appropriate VA forms to receive your educational benefits and provide important information on what you must do to maintain the benefit while taking classes at Clark State.

For more information or to receive personal assistance, please contact the Registrar at (937) 328-6014.

## Student with Work/Life Experience

If you would like to earn credit for your life experiences, you may put together prior learning portfolios that are assessed by members of the Clark State faculty. To learn more about earning college credit for your past experiences, contact (937) 328-3852 or visit the Arts and Sciences Division.

## 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 have the opportunity to use the College facilities and educational services. We also encourage you to take part in student activities. If you would like more information, call or visit the Clark State Admissions Office or the Greene Center.

## International Student Admission

Clark State is authorized under federal law to accept non-immigrant (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.php](http://www.clarkstate.edu/international.php). The following documents are required:

**International Student Application:** This application can be found on our website, [www.clarkstate.edu/international\\_admissions.php](http://www.clarkstate.edu/international_admissions.php).

**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:** If English is not your native language, you must prove English language competency through one of the following:

- A satisfactory score on the TOEFL (Test of English as a Foreign Language), with a minimum composite score of 60 (Internet-based) or 500 (paper-based). Prospective students applying from abroad must submit an official TOEFL score report to the College. The TOEFL number for Clark State Community College is 1127.
- College-level English course with a grade of a C or better.

**Financial Support:** Student and sponsor must complete the Financial Certification and 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 be signed by the appropriate bank or government official.

**Acknowledgement of Responsibility:** All international students are required to complete an Acknowledgement of Responsibility.

Clark State Community College will issue an I-20 for an 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.

## 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, and at the Greene Center. Complete the Clark State admissions application and submit it to Admissions Office. An application may also be completed and submitted from the website at [www.clarkstate.edu](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 24. 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 part-time students. New students can register for orientation online at [www.clarkstate.edu/new\\_student\\_orientation\\_registration.php](http://www.clarkstate.edu/new_student_orientation_registration.php) or by calling (937) 328-6084 or (937) 429-8819.

## 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:

- 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.
- 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.
- Students with mathematics scores of 23 ACT or 700 SAT are eligible for mathematics proficiency tests.
- Students with English scores of 23 ACT or 670 SAT are eligible for English proficiency tests.

## Placement Testing

If you are 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 transferred in college-level English and math credits 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 or Greene Center staff will let you know if you need to take college preparatory courses. Although there is no time limit, you should plan on 1 1/2 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 and are not within a cell phone. A study guide is available in the Admissions Office and the Success Center in the Sara T. Landess Technology and Learning Center, the Greene Center, or online at [www.act.org/compass](http://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 on the Leffel Lane campus, Monday through Thursday, 8:30 a.m.-7 p.m., and Friday, 8:30 a.m.-4 p.m., and at the Greene Center, 8 a.m.-7 p.m., Monday through Thursday, and 8 a.m.-4 p.m. on Friday. During summer quarters, all offices at every campus close at 2 p.m. on Fridays. For further information call (937) 323-6049, (937) 429-8819, or visit the Clark State website at [www.clarkstate.edu](http://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 Office, (937) 328-6019.

## Student Support Services Office

The Student Support Services Program is funded by the Federal Department of Education to assist students with the challenges of college. The major goals of the program are to help students stay in school, graduate and possibly transfer to a four-year college or university.

Assistance is available in the following areas:

- Academic, financial, and personal counseling
- Class selection
- Mentoring
- Tutoring
- Transfer information and college visits
- Cultural enrichment

For additional information contact the Student Support Services Office at (937) 328-3855.

## Career Technical Education Tech Prep Student

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: Butler Technology Center, Greene County Career Center, Miami Valley Career Technical Center, Ohio Hi-Point Career Center, Pickaway-Ross Career Center, Springfield-Clark Career Technology Center, TriStar Career Compact and Upper Scioto 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 Admissions at (937) 328-6028.

## 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 progress and transcript GPAs 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 return 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 or at the Greene Center. Students who interrupt their attendance for four or more consecutive quarters 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 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 has 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 space-limited programs are Medical Assisting, Medical Laboratory Technology, Physical Therapist Assistant, Practical Nursing, Registered Nursing and Nursing Transition (Practical Nursing to Registered Nursing; Paramedic to Registered Nursing). Please refer to the program pages or contact the Admissions Office for further information.

### Health Technologies Admissions

Applicants for Health Technologies programs must submit a program-specific petition request. Students must fulfill the petition prerequisites as listed prior to petitioning to a health program. High school applicants for these programs are encouraged to apply for admission to the College in their junior or senior year.

All applicants are considered for admission to Health Technologies programs by the date in which they file a petition and have that petition approved.

While waiting for entry to the Health Technologies courses, all applicants must maintain the required cumulative grade point average for the respective program. College preparatory courses and other courses, which are not listed as part of the curriculum, are not typically included in calculating the cumulative GPA.

Transcripts are reviewed prior to sending acceptance letters for these programs and prior to the beginning of the technical courses. Applicants must have the required grade point average in order to be eligible for acceptance into the program. 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 after meeting the current petition requirements.

### Physical Therapist Assistant

Students must obtain the PTA Program Petitioning Handbook from the Admissions Office, Health and Human Services Division Office, the Greene Center, or online at [www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php) and complete a petition to enter the PTA program. Students must refer to PTA program information pages in the catalog and the PTA Petitioning Handbook for information and take the following steps:

- Successfully complete the reading, writing and math placement tests or equivalency.
- Complete the chemistry and physics prerequisites.
- Complete 30 hours of observation.

Petitions are accepted in the Health and Human Services Division Office (Applied Science Center 133) or at the Greene Center throughout the year. Students are entered into the program once a year in fall quarter. Admission and waiting list notifications are made initially in April of each year.

### Medical Assisting

Students must successfully complete reading, writing, math and algebra placement tests, or obtain a grade of C or better in the appropriate college preparatory or college-level course prior to petitioning for the program.

After the petitioning requirements have been completed, students must petition for the program online at [www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php). Students are entered into the Medical Assisting program's technical courses (MAS) in winter quarter based on the date of their approved petition request. If demand for the program is large, additional students are accepted for a second start in spring quarter.

### Medical Laboratory Technology

Students must successfully complete reading, writing, math and algebra placement tests, or obtain a grade of C or better in the appropriate college preparatory or college-level course prior to petitioning for the program.

After the petitioning requirements have been completed, students must petition for the program online at [www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php). 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

Students must successfully complete the reading, writing, math and algebra placement tests or equivalency prior to petitioning to the program. Refer to program information for equivalencies. After the petitioning requirements have been completed, students must petition for the program online at [www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php). If all requirements are complete, the student's name will be placed on the waiting list.

Students must successfully complete MST 181 or equivalent nurse aide training 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

Students must successfully complete the following prior to petitioning to the program:

- Reading, writing, math and algebra placement tests or equivalency. Refer to nursing program information for equivalencies.
- One unit of high school chemistry or CHM 115 or the equivalent with a grade of C or better within the previous five years.

After the petitioning requirements have been completed, students must petition for the program online at [www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php). If all requirements are complete, the student's name will be placed on the waiting list. Students must successfully complete MST 181 or equivalent nurse aide



# Academic 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.

New students are expected to begin their academic program by discussing goals with an Academic Advisor in the Advising Center or at the Greene Center. If you have declared a major and you are a first-quarter student, please attend New Student Orientation for placement test score interpretation and first quarter scheduling assistance. If you are undecided about an academic major, you should contact Career Management for guidance.

Clark State Academic Advisors are available to assist students with the initial planning and pursuit of an academic degree.

Advisors can help students by answering questions about how to obtain the necessary information to complete a program of study. It is recommended that students develop both short- and long-term plans and discuss those with their advisor. Your advisor's role is to discuss options and offer advice regarding your academic program of interest.

After completing the application process and either taking the Compass Placement Test, or after transcripts from previous institutions have been received and reviewed, Academic Advisors can provide guidance with first quarter scheduling. Students with transfer credit from another college should have official transcripts sent to the college, and should also have an unofficial copy in hand when they meet with an Academic Advisor. It is recommended that students create a permanent folder to take to each advising session.

During the advising session in New Student Orientation, Academic Advisors will review the specific requirements for completion of the student's academic program. However, these can also be found online at [www.clarkstate.edu/academics\\_home.php](http://www.clarkstate.edu/academics_home.php). During the first appointment, students are assigned to a Faculty Advisor for all future advising and scheduling assistance. Faculty advisors are specific to each student's field of interest and are knowledgeable about professional goals related to their departments.

The first opportunity for class registration is termed Priority Registration. This period provides current students with first choice of classes. It is highly recommended that current students take advantage of this opportunity and work with their Faculty Advisors to make appropriate course selections. Advisor sign-up sheets are posted the week prior to Priority Registration at the Division office, or on each advisor's door (Arts & Sciences, Health & Human Services, Corporate & Public Services, or Business & Applied Technologies).

After the first quarter, all students should contact their Faculty Advisor to schedule an appointment the week before Priority Registration. If you do not know the name of your Faculty Advisor, you may contact the appropriate division office (Arts & Sciences, Business & Applied Technologies, Corporate & Public Services, or Health & Human Services), or find it online at [www.clarkstate.edu/faculty\\_advisors.php](http://www.clarkstate.edu/faculty_advisors.php).

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. Students may be required to demonstrate competency in previously completed courses and some courses may need to be repeated. If reinstatement criteria are met, eligible students are reinstated on a space-available basis. Reinstatement is not guaranteed.

## Degrees or Certificates Leading to Professional Licensure or Certification and/or Participation in Clinical Placement, Internships or Practicums

Students who are pursuing degrees or certificates leading to application for professional licensure or certification and/or who will be participating in clinical placements, internships, or practicums through their program should be aware that their host facility may require a criminal background check, fingerprinting, and/or drug screening. In such situations, each student is responsible for obtaining and paying for the background check or other screening process. Although the College will make reasonable efforts to place admitted students in field experiences and internships, it will be up to the host facility to determine whether a student will be allowed to be placed at that facility. Host facilities may consider expunged convictions in placement decisions. Students shall further be aware that a criminal record may jeopardize licensure by the State certification body. Students should consult the licensing or certification body corresponding to their intended occupation for more details. Successful completion of a program of study at the College does not guarantee licensure, certification, or employment in the relevant occupation. Standards may change during a student's program of study.

## Responsibilities in Advising

Students increase their likelihood of success when they actively participate in the advising process. Although your advisor may make suggestions or discuss options concerning courses in your program, he or she will not make decisions for you. 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.
- Utilize online services such as WebAdvisor and Student E-mail.
- Follow through on advisor recommendations and adhere to important dates.
- Learn and complete requirements of academic program.
- Make use of appropriate resources on campus.
- Avoid taking a heavy course load while working more than half time and/or being involved with other significant responsibilities.

### Advisor Responsibilities

- Understand requirements for all Clark State degrees, certificates, and programs and advise new students accordingly.
- Serve first quarter students; continuing students may register using WebAdvisor and/or work with their faculty advisor.
- Collaborate with campus-wide resources for student success.
- Assist students in understanding College policies and procedures.
- Communicate important dates.
- Facilitate the ease of transfer.

## Registration Information

New students should attend orientation before registering for classes. Students will meet with advisors for first quarter scheduling.

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 and those students enrolled any of the four previous quarters. 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 priority registration for 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.
- Register online at [www.clarkstate.edu](http://www.clarkstate.edu).
- Register in person at the Records and Registration Office, Rhodes Hall, Room 220, the Business and Applied Technologies Office, Brinkman Center, Room 201, or at the Greene Center.

## 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, the Greene Center, 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 15th 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 15th 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 Advising offices, Records and Registration Office, and the Greene Center. 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 Veteran's benefits and drop a class or withdraw from all classes, it is your responsibility to notify the Registrar, Rhodes Hall, Room 220, (937) 328-6014.

Courses dropped anytime during the quarter could result in an over-payment 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 courses a third or more times must be obtained from the dean of the division responsible for your program of study. If you are enrolled in a health sciences program, you must also abide by the program-specific, published regulations about re-enrolling in courses.

A course that is re-taken will count only once toward graduation requirements. All grades will appear on the transcript. For a course taken two or more times, the last grade earned will be included in both the Progress and Transcript GPA's.

## 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 Veteran's 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 and at the Greene Center. 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 [www.soche.org/crossreg.htm](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 website at [www.soche.org/colleges.htm](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 for 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. The student must complete the Transfer Appeal form (located in the Records/Registration Office – Rhodes Hall Room 220 or at the Greene Center).

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. The Records/Registration Office contacts the student informing him/her of the decision.

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.

# Paying for College

## How Much Does Clark State Cost?

**Ohio Resident**   **Non - Resident**  
(per credit hour)   (per credit hour)

<b>Instructional Fee</b> (up to 16 credit Hours)	\$71.00	\$142.00
<b>General fee</b> (up to 14 credit hours)	\$6.00	\$6.00
<b>Technology Fee</b> (up to 16 credit hours)	\$6.00	\$6.00
<b>Total Cost</b>	\$83.00	\$154.00

### Other Fees and Expenses

Application fee (one time only).....	\$ 15
Late payment fee.....	\$ 15
Late registration fee.....	\$ 25
Transcript fee.....	\$ 2
Auxiliary services fee (per quarter) .....	\$ 5
Delayed Payment Plan (DPP) service charge .....	\$ 15
DPP late payment fee (per installment).....	\$ 15
Proficiency fee (per credit hour) (minimum charge of \$20) .....	\$15
Prior Learning Portfolio Assessment (per course).....	\$75
Prior Learning Portfolio (written as part of a class).....	\$60
Lab fee (for certain courses only) .....	Varies
Certification fee (for certain courses only) .....	Varies
Liability insurance (for certain courses only) .....	Varies
Compass Re-test Fee (maximum of one retake per subject area) .....	\$5
Corporate Proficiency (per credit hour).....	\$5

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, Health Clinic, Campus Ministry, Behavioral Support Services, and Career Management.

Auxiliary service 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 each quarter. 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 and at the Greene Center.

## 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, & Spring Quarters

Date	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 21st calendar day of the quarter	no refund

### Fee Refund Schedule for Summer Quarter.

Date	Refund
The 1st 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 Enforcement and Penalties

Warnings and/or fines are assessed for vehicles not displaying a current parking permit or for violating other parking procedures. Permits are free of charge. You may register your vehicle online at [www.clarkstate.edu/parking\\_permits.php](http://www.clarkstate.edu/parking_permits.php). Your permit will be mailed to you. Permits can also be picked up in the Bookstore, the lobby of the Brinkman Educational Center or the Greene Center in Beavercreek. You will need to know your license plate number.

Any vehicle ticketed for a Clark State violation that displays a current Clark State faculty, staff or student permit will have the fine charged to the permit holder. If the fines assessed are not paid within ten days, a hold will be placed on the permit holder's account, which will prevent the permit holder (if a student) from registering for the following quarter. For Clark State citations issued to faculty and staff that are not paid within ten days, a payroll deduction will be assessed on the first pay of the next quarter. Fines can be paid in the Cashier's Office on the second floor of Rhodes Hall.

The College partners with the Springfield City Police Department to provide safety and security services. Violations are subject to Clark State fines and penalties or City of Springfield fines, penalties, and a possible court appearance depending upon the nature of the violation.

### Clark State violations and fines include the following:

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 designated spaces	\$10

### City of Springfield violations and fines include the following:

(These fines are set and controlled by the City of Springfield.)

Handicapped parking without displaying a permit issued by the State of Ohio

Parking in fire lane

Disobeying traffic control device

Reckless operation

Other violations that could be cited and requiring a court appearance include speeding, operating vehicle on walkway or grass, driving under suspension, DUI, no valid driver license, failure to stop, refusing to cooperate, giving false information and obstruction of official business.

## 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 Printing

Each quarter each enrolled student is provided \$7.50 in a printing account to print documents on campus. Black and white pages will be charged against the student's printing account at a rate of 5 cents (\$0.05) per page printed (150 pages of black and white prints). Students who exceed the \$7.50 allocation for the quarter can add additional funds for printing by using a personal credit/debit card. Students who do not have a credit/debit card can purchase one in the Bookstore to add funds to their printing accounts.

Money placed into the students' printing accounts by the students will carry over from one term to the next. However, once the money is placed into the printing account, it cannot be refunded.

Each quarter the College will refresh all enrolled student accounts with \$7.50 (150 pages of black and white prints). Unused pages do NOT carry over from one term to another. The value placed in the students' printing accounts by Clark State is used up each quarter before any carryover funds added by the student are used.

A lack of funds in a student's printing account will not be considered a valid reason for not meeting deadlines for submitting coursework.

# 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 families 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). The FAFSA is available to complete at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Clark State's Federal School Code is 004852. 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 your e-mail account if completed online, or mailed to your home if you did not provide an e-mail address. This information is also sent to the schools you listed on your FAFSA. 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 a student receives an award notification via their WebAdvisor account 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 the academic year beginning with Summer Quarter and ending with Spring Quarter. Eligible students who attend in summer quarter will be initially awarded a Pell grant for Summer, Fall, and Winter Quarters. Part-time students may receive Pell for an additional quarter of eligibility. Students may be eligible for a maximum of four full-time grant quarters as long as they are advancing into a second academic year by the second week of Spring Quarter. 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. This information is available on the Financial Aid page of the Clark State website or you may 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

The federal program eligibility requirements are listed below:

- Generally, you must show financial need.
- You need to have a high school diploma, GED, or have passed an independently administered test approved by the U.S. Department of Education.
- You are enrolled as a regular student in an eligible program.
- You are a U.S. citizen or eligible non-citizen.
- You 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 degree is not eligible for this grant. During 2010/11, the annual value of Pell Grants at Clark State ranged from \$555 to \$5,550 for part-time and full-time students, respectively.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

This is a federal grant which provides assistance to eligible undergraduate students who have not earned a bachelor 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 through the Direct Lending loan program by the U.S. Department of Education to help pay for educational expenses. Repayment is made beginning six months after the borrower ceases to be at least a half-time 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.

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.

## 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 \$1,500 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 SEOG, Federal work-study, and Federal Stafford 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 grades of A, B, C, D, IP or S. Grades of F, Z, W, I, U, and PG are not considered to be successfully completed. You must also maintain an appropriate grade point average as determined by the College to retain eligibility for federal aid.

Total Credit Hours Attempted	GPA Required
1-15	Above 1.49
16-30	Above 1.59
31-45	Above 1.69
46-60	Above 1.79
over 60	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.

## Financial Aid Warning

Students who fail to complete 67% of their attempted hours and/or fall below the minimum GPA requirement are placed on financial aid warning. 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 a minimum 2.0 GPA requirement during their warning quarter. Students who fail to meet the requirements will be suspended from federal financial aid.

## Financial Aid Suspension

If the warning 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 or appeal the suspension. If you complete 24 credit hours, you must contact the Financial Aid Office. 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 Probation or on an Academic Plan. If the required standards are not met at the end of the Probation quarter, the student will be suspended the second time.

The Fresh Start Program does not affect the Financial Aid Standards of Academic Progress Policy.

## New Programs of Study

Students who have graduated from Clark State and 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 \$7.50 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 Office of Career Management assists students with locating part-time 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 policy below 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 % 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 GPA 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 non-profit organization that provides support to the College and its students. The Foundation offers and administers scholarships funded by contributions from individuals, businesses and organizations. You can print an application from the Clark State website (under Scholarships on the Financial Aid Page), in the Financial Aid Office, the Admissions Office, the Foundation Office, the Greene Center, or from the Brinkman Center receptionist. Deadlines for applying are stated on the application. Your application will then be reviewed by the Scholarship Review Committee.

## George Mueller Tech Prep Scholarship

Students who have completed the high school portion of a Tech Prep pathway with Clark State Community College 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 Clark State at (937) 328-3882 for additional information.

## Others Scholarships Available at Clark State

You may also want to apply for these scholarships, which are funded by the State of Ohio:

### Ohio National Guard Scholarship

The Ohio National Guard will pay 100% 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 partial payment of full-time instructional and general fees to dependent children of deceased or disabled Ohio War Veterans. Application is made through The Ohio Board of Regents.

# 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 website 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/student\\_records.php](http://www.clarkstate.edu/student_records.php). 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 three to five 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.

# Tools for Student Success

## The College Library

The Clark State Library, located in 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, 180 magazine and journal titles with electronic access to thousands more and over 2,000 audio-visual titles. The library houses computers with access to the Internet and electronic research databases through OhioLINK. Extensive information on getting started with research is available 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. A valid Clark State student identification card also serves as your library card to the Paul Laurence Dunbar Library on the campus of Wright State University, which is the closer library to the Greene Center campus in Beavercreek.

The Clark State Library is a member of OhioLINK, the statewide network of automated library services that provides access to a central library catalog listing over 46 million items along with over 100 electronic research databases and 12,000 electronic full-text journals. 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 terms, 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 or email [library@clarkstate.edu](mailto:library@clarkstate.edu) for more information.

## Behavior Support Services

Clark State has a licensed professional counselor available to assist students in addressing problems and concerns that may impede academic performance.

Peer Listeners are also available to meet with students on a walk-in basis. The peer listeners are trained in a variety of areas including listening skills, crisis management, and problem solving. Consultations are confidential (except in cases in which disclosure of information is necessary to protect you or others from physical or life-threatening danger), and no information will be released without written permission. Referrals to community agencies may be made when appropriate. To contact Behavior Support Services, please contact (937) 328-7961.

## Tutoring

You are entitled to free tutoring as a Clark State student. If you are interested in obtaining a tutor or becoming one, please visit the Sara T. Landess Technology and Learning Center, Room 117, the Brinkman Center, Room 106, or the Greene Center. Tutors are assigned to students, usually two hours per week per subject.

## Disability Services

Disability Services is the official contact for students with any type of disability who request academic adjustments, reasonable modifications, auxiliary aides and/or services to provide equal opportunity for academic success. Disability Services serve as advocates for you and will assist you in achieving equal access to all College programs and services.

Services are offered on a voluntary basis and the student must request them. Accommodations will not be made after the third week of the quarter. After the third week students can still sign up with Disability Services, but accommodations will not start until the next new quarter.

Students must provide documentation of the disability (i.e.: IEP Individualized Education Plan, MFE – Multifactor Evaluation, or other testing information letter from a doctor or other licensed professional. Students are strongly encouraged to meet with the Disability/Retention 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 specialist before each quarter to arrange for their support services. For more information, please contact Disability Services at (937) 328-6019.

## 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 [www.careers.clarkstate.edu](http://www.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/Internship 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 transcript grade point average. They do, however, count in the calculation of full-time status, progress GPAs 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

A variety of personal growth courses are offered to support and enrich your academic work. The personal growth courses cover an array of subjects from college transition 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.

## 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 two-year 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. 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.

## Epsilon Pi Tau

Epsilon Pi Tau is the International Honor Society for Professions in Technology. The organization was first conceived in 1928 at the Ohio State University as a Greek letter fraternity to recognize leaders and potential leaders in the fields related to technology education of that time and has expanded its role to honor deserving members in the technology professions. There are one hundred and twenty-three campus and field chapters throughout the world. In order to be eligible to join the Clark State Chapter, Delta Iota, students must have a minimum grade point average of 3.25. To signify membership in Epsilon Pi Tau, graduating members wear blue/gold/white cords over their academic gowns.

## The National Society of Leadership and Success

The National Society of Leadership and Success is an organization dedicated to creating lasting positive change in people's lives. The Society encourages community action, volunteerism, personal growth and strong leadership from its chapters and members around the world. The Society is associated with the Greek symbols Sigma Alpha Pi to represent Success, Action and Purpose. In order to be eligible to join the Clark State chapter, students must have a minimum grade point average of 3.0. To signify membership in The National Society of Leadership and Success, graduating members wear platinum stoles over their academic gowns.

# 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

Students are expected to behave as responsible members of the College community and to be honest and ethical in their academic work. Activities of academic dishonesty corrupt the process of acquiring the knowledge and developing the skills necessary for success in any profession; such activities are considered a violation of the student code of conduct and are therefore prohibited. Students are responsible for understanding and abiding by the College Academic Integrity Policy and definition of academic dishonesty as well as course and faculty-specific standards and expectations.

Cases involving academic dishonesty are handled within the academic division responsible for that course. Faculty and/or the division deans have the authority to issue a sanction up to a grade of zero for any assignment in which academic misconduct has occurred. In serious or repetitive incidences, the case will be referred to the Academic Incident Hearing Panel (AIHP) for further action. Such action may include issuing a failing grade for the course, probation, suspension, and/or expulsion.

## 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 division dean and then with the Vice President of Academic and Student Affairs.

Two cumulative grade point averages are maintained for each student. The Progress GPA includes all courses completed at Clark State and include all College Preparatory (CPE) courses and other pre-college-level courses. The Transcript GPA does not include the grades for any CPE or other pre-college courses.

## Dean's List

If you carry a minimum of six credit hours of college courses and maintain a transcript 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 Progress grade point average falls into the ranges listed below:

Hours attempted	Progress GPA
1-15	Below 1.50
16-30	Below 1.60
31-45	Below 1.70
46-60	Below 1.80
Over 60	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 must confer with your faculty advisor to carefully select a course schedule. Students on probation will not be permitted to register without their faculty advisors' permission. 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 Progress 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 Progress 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 Progress GPA by the end of the quarter will result in dismissal. You will be dismissed when your Progress grade point average falls into the following ranges.

Hours attempted	Progress GPA
1-15	Below .80
16-30	Below .90
31-45	Below 1.20
46-60	Below 1.40
over 60	Below 1.6

## Re-Admittance After Dismissal

You may be re-admitted to Clark State on probation after you have sat out one quarter, completed the Petition for Re- Admission form available in the Records and Registration Office, and have it reviewed and approved by the division dean or coordinator of advising.

Upon re-admittance, you must meet with the division dean 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.

Once re-admitted you will remain on probation until you move above the probation ranges defined in the table above. However, you will not be dismissed again even if you remain within the dismissal range provided that you maintain a quarterly Progress GPA of 2.0 each quarter. If you fail to maintain a Progress GPA of 2.0 each quarter you will be dismissed again if your cumulative Progress GPA falls in the dismissal range.

Students qualifying for a third dismissal will be suspended and must sit out a full calendar year before being allowed to continue taking classes. You must follow the steps outlined above for re-admittance. Any future academic dismissals will also result in additional one-year suspensions,

## 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:

<b>A-Excellent</b>	(4 grade points per credit hour)
<b>B-Good</b>	(3 grade points per credit hour)
<b>C-Average</b>	(2 grade points per credit hour)
<b>D-Poor</b>	(1 grade point per credit hour)
<b>F-Failing</b>	(0 grade points per credit hour)
<b>Z-Non-Attendance*</b>	(0 grade points per credit hour)

(\*Student registered for class but never attended, for online classes, never logged in)

Your Transcript 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
<hr/>			
Totals	13		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  $33/13 = 2.538$ , 2.53.

Grades issued for college preparatory courses are not counted in your transcript grade point average. A transcript 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:

<b>S</b>	<b>Satisfactory</b>
<b>U</b>	<b>Unsatisfactory</b>
<b>I</b>	<b>Incomplete</b>
<b>PR</b>	<b>Proficiency</b>
<b>CR</b>	<b>Credit</b>
<b>NC</b>	<b>No Credit</b>
<b>EX</b>	<b>Experiential Credit</b>
<b>TR</b>	<b>Transfer Credit</b>
<b>AR</b>	<b>Articulated Credit</b>
<b>W</b>	<b>Withdrawal</b>
<b>X</b>	<b>Audit</b>
<b>IP</b>	<b>In Progress (self-paced courses only)</b>
<b>N</b>	<b>No Grade Reported (Records Office use only)</b>

## 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 one or more 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 transcript 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 Education, Emergency Medical, Medical Assisting, Medical Laboratory, Practical Nursing, Registered Nursing, Physical Therapist Assistant, and Social Services. Students who graduate from the Registered Nursing program in 2013 or after will be required to have a C or greater in all courses in the curriculum. 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 coursework 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 dean. 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 one-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 that 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); CLEP, College Board Advanced Placement tests, Military service training

recommended by ACE (DANTES); Portfolio evaluation; and credit by examination. To learn more about the available options contact the Records and Registration Office or visit with your advisor.

## Advanced Placement Credit Award

The State of Ohio, working through the University System of Ohio, has initiated policies to facilitate the ease of transition from high school to college as well as between and among Ohio's public colleges and universities.

## Beginning in the Fall term 2009

Students obtaining an Advanced Placement (AP) exam score of 3 or above will be awarded the aligned course(s) and credits for the AP exam area(s) successfully completed. General Education courses and credits received will be applied towards graduation and will satisfy a general education requirement if the course(s) to which the AP area is equivalent fulfill a requirement.

If an equivalent course is not available for the AP exam area completed, elective or area credit will be awarded in the appropriate academic discipline and will be applied towards graduation where such elective credit options exist within the academic major.

Additional courses or credits may be available when a score of 4 or 5 is obtained. Award of credit for higher score values varies depending on the institution and academic discipline.

In academic disciplines containing highly dependent sequences (Sciences, Technology, Engineering and Mathematics – STEM) students are strongly advised to confer with the college/university advising staff to ensure they have the appropriate foundation to be successful in advanced coursework within the sequence.

## Athletics/Intramurals

Clark State Community College offers five intercollegiate athletic programs:

**Men's basketball**

**Men's baseball**

**Women's basketball**

**Women's softball**

**Women's volleyball**

As a member of the Ohio Collegiate Athletic Conference, OCAC, and playing in the United States Collegiate Athletic Association, USCAA, Clark State competes in division II of intercollegiate athletics. Eagle athletics takes pride in their success on and off the playing field. You can obtain additional information by contacting the athletic department at (937) 328-7819.

You may also participate in recreational and intramural sports. Some of the activities include club soccer, club golf, flag football, co-ed volleyball, and a 3-on-3 basketball tournament. If there is an activity that is not offered and you are interested in starting one, contact the athletic department to initiate the process.

## Performance/Concerts

Clark State Community College offers students opportunities to participate in the arts at the Clark State Performing Arts Center.

Students can audition for The Theatre Arts Program Fall and Spring plays or musicals. Audition dates are September and January/February each year. Performances are held in October/November and April at the Clark State Performing Arts Center Turner Studio Theatre black box or in the 1,500-seat Kuss Auditorium proscenium. Both Theatre Arts productions are reviewed by Miami Valley theatre groups for DayTony Awards.

Also available to students is the Clark State Choir. Students can register for MUS 150 Clark State Choir each quarter (up to 6 quarters). Choir concerts are at the end of each quarter with occasional performances at off-site locations. For more information regarding productions and choir concerts, please contact the Theatre Arts Program at (937) 328.8059.

In addition to performing opportunities, Clark State also offers students the rewarding option to work back stage at the Performing Arts Center events through the college work-study program. Contact Performing Arts Center Technical Director, Dan Hunt at (937) 328-3863 for more details.





# Degree Programs

2011  
2012

Clark State offers more than 80 associate degree and certificate programs. Interested in completing a Bachelor's degree? Check out our transfer degree programs.

Programs designated with a **G** are also available at the Greene Center campus in Beaver Creek.

Programs with a **G+** are available only at the Greene Center campus in Beaver Creek.

## Transfer Degrees

Associate of Arts	<b>G</b>
Associate of Arts - Honors Concentration	
Associate of Science	<b>G</b>
Associate of Science - Honors Concentration	
Associate of Science - Aviation Technology Concentration	
Aviation Technology Pilot Flight Certificate	
Business Transfer - Wright State University	<b>G</b>
Chemistry Transfer - Wright State University	
Communication Studies	
Engineering Transfer	
English Transfer - Wright State University	<b>G</b>
Math Transfer - Wright State University	<b>G</b>
Physics Transfer - Wright State University	<b>G</b>
Psychology Transfer - Wright State University (Bachelor of Arts)	<b>G</b>
Psychology Transfer - Wright State University (Bachelor of Science)	<b>G</b>
Social Work Transfer - Wright State University	<b>G</b>
Teacher Education Transfer Concentration	
Teacher Education Transfer - Early Childhood Education	<b>G</b>
Teacher Education Middle Child Language Arts/Social Studies - Wright State University	<b>G</b>
Teacher Education Middle Child Math/Science - Wright State University	<b>G</b>

## Advanced Technical Intelligence

Advanced Technical Intelligence	<b>G+</b>
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## ATI Certificate

Advanced Technical Intelligence Certificate	<b>G+</b>
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## Agriculture and Horticulture

Agricultural Business	
Agricultural Business - Agriculture Engineering Technology Option	
Horticulture Industries - Golf Course Operations Option	
Horticulture Industries - Landscape Design Option	
Horticulture Industries - Nursery Operations Option	
Horticulture Industries - Parks and Recreation Operations Option	
Horticulture Industries - Turf and Landscape Operations Option	

## Ag and Hort Certificates

Agricultural Business Departmental Certificate	
Agricultural Engineering Technology Departmental Certificate	
Agricultural Equipment Departmental Certificate	
Agriculture Pest Departmental Certificate	
Landscape Design Departmental Certificate	
Parks and Recreation Operations Departmental Certificate	
Turf Departmental Certificate	

## Business

Accounting	<b>G</b>
Management	<b>G</b>
Management - Human Resource Management Option	<b>G</b>
Management - Logistics & Supply Chain Management Option	<b>G</b>
Management - Marketing and E-Business Option	<b>G</b>
Office Administration - Medical Office	<b>G</b>
Office Administration - Professional Office	<b>G</b>
Professional Services Management	<b>G</b>
Paralegal (first year)	<b>G</b>

## Business Certificates

Accounting Certificate	<b>G</b>
Advanced Medical Coding Departmental Certificate	<b>G+</b>
Communication Departmental Certificate	<b>G</b>
Customer Service Departmental Certificate	<b>G</b>
Human Resource Management Departmental Certificate	<b>G</b>
Logistics & Supply Chain Management Departmental Certificate	<b>G</b>
Management Certificate	<b>G</b>
Marketing and E-Business Departmental Certificate	<b>G</b>
Medical Coding Departmental Certificate	<b>G</b>
Medical Transcription Departmental Certificate	<b>G</b>
Professional Office Administration Certificate	<b>G</b>
Small Business Departmental Certificate	<b>G</b>
Supervisory Departmental Certificate	<b>G</b>

## Computer and IT

Computer Networking	
Computer Networking - Technical Systems Support Option	
Computer Software Development	<b>G</b>
CyberSecurity / Information Assurance	
Information Services Library Paraprofessional	

## Computer and IT Certificates

Computer Programming Departmental Certificate	
CyberSecurity Departmental Certificate	
Network Administration Departmental Certificate	
Network Infrastructure Departmental Certificate	
Technical Support Departmental Certificate	
Web Development Departmental Certificate	


## Court Reporting/Captioning

Judicial Reporting	<b>G</b>
Judicial Reporting - Broadcast Captioning/CART Option	<b>G</b>


## Court Reporting / Captioning Certificates

Judicial Reporting Scopist Departmental Certificate	<b>G</b>
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## Early Childhood/Teacher Education

Career and Technical Education - ATS   
Early Childhood Education

### Early Childhood/Teacher Education Certificates

Child Development Associate (CDA) Certificate   
(every other year)

## EMS | Fire

Emergency Medical Services

### EMS | Fire Certificates

EMT - Basic Certification  
EMT - Intermediate Certification  
Paramedic Certification  
Paramedic Certification for Registered Nurses  
Firefighter Level I  
Firefighter Level II


## Engineering Technology

Computer-Aided Design (CAD)  
Industrial Technology  
Manufacturing Engineering Technology  
Mechanical Engineering Technology


### Engineering Certificates

Computer-Aided Design (CAD) Certificate  
Electrical Maintenance Certificate  
Electronics Certificate  
Manufacturing Certificate

## GIS/Geospatial Technology

GIS/Geospatial Technology 

### GIS/Geospatial Technology Certificates

GIS Certificate 


## Graphic Design / Photography

Graphic Design

### Graphic Design / Photography Certificates

Photography Certificate



## Health

Medical Assisting  
Medical Laboratory Technology  
Physical Therapist Assistant  
Registered Nursing  
Registered Nursing - Evening  
Registered Nursing - LPN to RN Transition  
Registered Nursing - Paramedic to RN Transition 

### Health Certificates

Electrocardiography Departmental Certificate   
Medical Assisting Certificate  
Multi-Skilled Health Care Certificate   
Nurse Aide Departmental Certificate   
Patient Care Technician Departmental Certificate   
Phlebotomy Departmental Certificate   
Practical Nursing Certificate  
Practical Nursing Certificate - Evening Weekend 

## Law Enforcement

Corrections   
Criminal Justice Technology 

### Law Enforcement Certificates

Basic Peace Officer Academy

## Social Services

Social Services Technology

### Social Services Certificates

Chemical Dependency Departmental Certificate

## Theatre Arts

Theatre Arts – Option One: Performance  
Theatre Arts – Option Two: Technical Theatre

### Theatre Arts Certificates

Arts Administration Departmental Certificate

# Start a Bachelor's Degree / Transfer

## Associate of Arts (AA.318)

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 quarter 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 (Area 1).
- Think critically (Area 1).
- Critically analyze a work of literature, music, theatre, art, or architecture (Area 2).
- Analyze and evaluate issues of the human historical and philosophical experience (Area 3).
- Describe and assess divergent aspects of individual and group human behavior (Area 4).
- Demonstrate mathematical and computer literacy (Area 5).
- Identify and apply the concepts of various aspects of the natural and physical world (Area 6).

### Area 1 - English (8 credit hours)

Grades of C or better in ENG 111 English I and ENG 112 English II are 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 133 Script Analysis, THE 241 Theatre History I, THE 242 Theatre History II or THE 243 Theatre History III), 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, CHM 115, CHM 116, GLG 130, GLG 114, PHY 105, PHY 110 and PHY 120.)

**Option 2** Take a three-course sequence in Biology, Chemistry, Geology or Physics. (Possible sequences include BIO 121-123, BIO 141-143, BIO 151-153, 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 are listed in the College Catalog.

## Capstone Seminar

All students pursuing either the AA or AS degree are 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 specific AA/AS program goals.

In addition to the Capstone Seminar, all students pursuing either the AA or AS degree are required to complete at least 9 credit hours in courses numbered 200 or higher. These classes will typically be in the Concentration or Elective areas, but may also fulfill requirements in Areas 2 - 6 above.

Total Credit Hours 92

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a 2 semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter based and semester based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Associate of Arts - Honors Concentration (AA.318H)

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:

- Students must meet all requirements for the Associate of Arts degree.
- 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
- Elective courses\* (must take 2 of 3):
  - HON 291: Science and Religion
  - HON 294: Science, Humanity, and Technology
  - HON 292: Literature, Gender, and Humanism
- Minimum grade of B required in each Honors course. Minimum overall GPA of 3.25 required.
- 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 (AS.325)

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 quarter 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 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 (Area 1).
- Think critically (Area 1).
- Critically analyze a work of literature, music, theatre, art, or architecture (Area 2).
- Analyze and evaluate issues of the human historical and philosophical experience (Area 3).
- Describe and assess divergent aspects of Individual and group human behavior (Area 4).
- Demonstrate mathematical and computer literacy (Area 5).
- Identify and apply the concepts of various aspects of the natural and physical world (Area 6).

### Area 1 - English (8 credit hours)

Grades of C or better in ENG 111 English I and ENG 112 English II are 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), THE 130 Introduction to Theatre, THE 133 Script Analysis, THE 241 Theatre History I or THE 242 Theatre History II), THE 243 Theatre History III 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)

Nine credit hours excluding MTH 105 and MTH 106 listed under Mathematics (in the Transfer Module) and at least 3 credit hours from Information Technology Systems.

### 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** Take three courses, each from a different science area. (Possible classes include BIO 110, BIO 140, CHM 110, CHM 115, CHM 116, GLG 130, GLG 114, PHY 105, PHY 110 and PHY 120.)

**Option 2** Take a three-course sequence in Biology, Chemistry, Geology or Physics. (Possible sequences include BIO 121-123, BIO 140-143, BIO 151-153, 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 Science degree take at least six courses with significant international content. Courses meeting the requirement are listed in the College Catalog.

### Capstone Seminar

All students pursuing either the AA or AS degree are 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 specific AA/AS program goals.

In addition to the Capstone Seminar, all students pursuing either the AA or AS degree are required to complete at least 9 credit hours in courses numbered 200 or higher. These classes

will typically be in the Concentration or Elective areas, but may also fulfill requirements in Areas 2 - 6 above.

\* The number of credit hours and courses may vary with specific curriculum guides. Check with your advisor first.

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to three-quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Associate of Science - Honors Concentration (AS.325H)

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:

- Students must meet all requirements for the Associate of Science degree.
- 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
- Elective courses\* (must take 2 of 3)
  - HON 291: Science and Religion
  - HON 294: Science, Humanity and Technology
  - HON 292: Literature, Gender and Humanism
- Minimum grade of B required in each Honors course. Minimum overall GPA of 3.25 required.
- 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.

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Associate of Science- Aviation Technology Concentration (AS.335)

The Aviation Technology Concentration of any Associate of Science degree is designed to prepare students for careers in aviation and for transfer to four-year institutions to complete a Bachelor degree in aviation or business. The program is a partnership between Clark State Community College and the Springfield Flight Academy (SFA) whereby the SFA provides the formal ground school and flight courses using SFA aircraft and instruction. Flight fees are collected as lab fees associated with the various flight courses.

Students will be enrolled in both the general education courses such as English, math and science and aviation courses each quarter. Students will be eligible for financial aid based on normal requirements for full-time enrollment and academic progress.

### Learning Outcomes

Upon completion of the Aviation Technology Concentration, Associate of Science degree, the graduate will be able to:

- Qualify to test for the Private Pilot's Certificate.
- Qualify to test for a Commercial Pilot's Certificate.
- Qualify to test for a Certified Instructor's Certificate.
- Qualify to test for a Multi-Engine Flight Certificate.
- Qualify to test for a Multi-Engine Instructor's Certificate.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

ENG 111	English I	4
AVN 101	Private Pilot Ground	4
AVN 102	Private Pilot Test Prep	1
MTH 121	College Algebra I	3
HST 111	Western Civilization to the 14th Century	3
ITS 12A	Windows Concepts	2

### Winter (Quarters)

ENG 112	English II	4
AVN 107	Supervised Flight Lab I	2.5
AVN 111	Instrument Ground	4
AVN 115	Aviation Weather	3
AVN 112	Instrument Test Prep	1
ECO 110	General Economics	3
ITS 12D	Beginning Database	1

### Spring (Quarters)

PHY 111	Physics I	4
MTH 122	College Algebra II	3
AVN 113	Instrument Flight Lab	2
AVN 121	Commercial Ground	4
AVN 122	Commercial Pilot Test Prep	1
MTH 140	Trigonometry	3
PHL 200	Critical Thinking	3

**Summer (Quarters)**

AVN 117	Supervised Flight Lab II	2.5
AVN 118	Supervised Flight Lab III	2.5

**Fall (Quarters)**

AVN 123	Commercial Pilot Flight Lab	1.25
AVN 201	Certified Flight Instructor Ground	4
AVN 202	Certified Flight Instructor Test Prep	1
AVN 211	Certified Flight Instructor Instrument Ground	2
AVN 212	Certified Flight Instructor Test Prep	1
GEO 110	World Human Geography	3
CHM 110	Fundamentals of Chemistry	5

**Winter (Quarters)**

AVN 203	Certified Flight Instructor Flight Lab	1.25
AVN 213	Certified Flight Instructor Instrument Flight Lab	0.75
PHY 120	Astronomy	4
ENG 230	Great Books: World Literature	3
PLS 230	International Politics	3
GLG 130	Earth and Space Science	5

**Spring (Quarters)**

RST -	Regional Studies*	3
AVN 221	Multi-Engine Ground	2
AVN 223	Multi-Engine Flight Lab	0.75
AVN 233	Multi-Engine Instructor Flight Lab	0.5
ART 130	Appreciation of the Arts	3
HUM 299	Capstone Seminar	3
Total Credit Hours (Quarters)		107

\*Regional Studies Course Choose from:

Regional Studies: 262 North India

Regional Studies: 270 Africa, or

Regional Studies: 280 Latin America

## Aviation Technology Pilot Flight Certificate (335DC)

The Aviation Technology Pilot Flight Certificate is intended to prepare the student to acquire the Private Pilot's License. The student will upon completion of this Certificate be able to qualify to test for the Private Pilot's License.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

AVN 101	Private Pilot Ground	4
AVN 102	Private Pilot Test Prep	1
AVN 103	Private Pilot Flight Lab	2.5

**Winter (Quarters)**

AVN 107	Supervised Flight Lab I	2.5
AVN 111	Instrument Ground	4

**Spring (Quarters)**

AVN 113	Instrument Flight Lab	2
AVN 121	Commercial Ground	4
Total Credit Hours (Quarters)		20

## Business Transfer - Wright State University (321W)

The Business Transfer program is a calculus-based curriculum that will prepare a student to transfer into the Raj Sooin College of Business at Wright State University. This selection of courses is designed to allow a student to enter the College of Business with junior status upon completion, provided the student has maintained a GPA of 2.5 or higher.

The program schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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-Business, a graduate will be able to meet the goals outlined for the general associate of science degree; additionally, the student will be able to demonstrate awareness of:

- Demonstrate awareness of the role of the business person in society.
- Demonstrate awareness of the rapidly changing global business environment.

**Scholastic Preparation**

Students entering this program should have taken mathematics courses each year of high school. Students who do not test into MTH 121, College Algebra I, will need to take the necessary prerequisite mathematics courses before beginning the mathematics sequence.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENG 111	English I	4
ACC 111	Principles of Accounting I	4
HST 111	Western Civilization To the 14th Century	3
STT 264	Statistics I	4
ITS 12A	Windows Concepts	2
ITS 12W	Beginning Word Processing	1



## Winter (Quarters)

ENG 112	English II	4
ACC 112	Principles of Accounting II	4
STT 265	Statistics II	4
HST 112	Western Civilization from the 14th through 18th Centuries	3
ITS 12D	Beginning Database	1
ITS 12P	Presentation Graphics	1
ITS 12S	Beginning Spreadsheet	1

## Spring (Quarters)

ENG 221	Business Communication	3
ACC 113	Principles of Accounting III	4
SOC 110	Sociology	3
PSY 111	Psychology I	3
RST -	Regional Studies **	3
COM 121	Public Speaking I	3

## Fall (Quarters)

ECO 221	Principles of Macroeconomics	3
MTH 121	College Algebra I	3
BIO 141	Evolution, Diversity and Ecology*	or
GLG 131	Physical Geology*	5
PSY 112	Psychology II	3
ENG 230	Great Books: World Literature	3

## Winter (Quarters)

MTH 220	Calculus for the Management, Life and Social Sciences	5
ECO 222	Principles of Microeconomics	3
MKT 200	Principles of Marketing	4
BIO 142	The Human Organism*	or
GLG 132	Historical Geology*	5
MGT 260	Legal Environment of Business	3

## Spring (Quarters)

HUM 299	Capstone Seminar	3
BIO 143	Cell Biology/Genetics *	or
GLG 133	Environmental Geology *	5
ART 130	Appreciation of the Arts	3
PLS 110	American National Government	3
Total Credit Hours (Quarters)		106

\* Students should complete either all three BIO courses or all three GLG courses.

\*\* Choose from Regional Studies: Regional Studies: 262: North India, Regional Studies: 270: Africa, or Regional Studies: 280: Latin America.

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Chemistry - Wright State University (336W)

The Chemistry Transfer program provides curricular options to prepare a student to transfer into the Bachelor of Arts or the Bachelor of Science degree in Chemistry at Wright State 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 Chemistry in which the student is interested and on the area selected for a minor at Wright State University. The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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. Wright State University offers both Bachelor of Arts and Bachelor of Science degrees in Chemistry. There is some flexibility within these degrees for students to pursue either a minor or a specialized area of study, according to their personal areas of interest. Students interested in pursuing the Pre-Chemistry degree at Clark State are encouraged to contact the Chemistry Undergraduate Program Office at Wright State by calling (937) 775-2855 to arrange a pre-admission advising appointment.

### Learning Outcomes

Upon completion of an Associate degree in Pre-Chemistry, a graduate will be able to meet the goals outlined for the general Associate of Science degree; additionally, the student will:

- Demonstrate proficiency in general and organic chemistry.
- Identify relationships between chemistry, other physical sciences and mathematics.

### Scholastic Preparation

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into MTH 221, Calculus I, will need to take the necessary prerequisite mathematics courses before beginning the Calculus sequence. Ideally, Wright State recommends that students should also have taken a foreign language in high school. Those students who have not taken a foreign language in high school may wish to consider college-level foreign language among their electives.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
ENG 111	English I	4
CHM 121	General Chemistry I	5
HST 111	Western Civilization to the 14th Century	3
ART 130	Appreciation of the Arts	3
ITS 12A	Windows Concepts *	or
ITS 12W	Beginning Word Processing *	1
<b>Winter (Quarters)</b>		
ENG 112	English II	4
CHM 122	General Chemistry II	5
ITS 12D	Beginning Database	or
ITS 12P	Presentation Graphics	or
ITS 12S	Beginning Spreadsheet	1
HST 112	Western Civilization from the 14th through 18th Centuries	3
ENG 230	Great Books: World Literature	3
<b>Spring (Quarters)</b>		
CHM 123	General Chemistry III	5
MTH 221	Calculus I	5
HST 113	Western Civilization from 19th Century to the Present	3
PSY 111	Psychology I	3
RST -	***Regional Studies	3
<b>Fall (Quarters)</b>		
CHM 211	Organic Chemistry I	5
PHY 250	General Physics I <sup>xx</sup>	6
MTH 222	Calculus II	5
PSY 112	Psychology II	3
<b>Winter (Quarters)</b>		
CHM 212	Organic Chemistry II	5
PHY 251	General Physics II <sup>xx</sup>	5
MTH 223	Calculus III	5
<b>Spring (Quarters)</b>		
HUM 299	Capstone Seminar	3
CHM 213	Organic Chemistry III	5
PHY 252	General Physics III <sup>xx</sup>	5
SOC 110	Sociology	3
PLS 130	Political Issues	3
Total Credit Hours (Quarters)		105

\* 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 Fundamentals, as a preparatory course before taking other computer courses.

\*\*\* Regional Studies Course Choose from:

Regional Studies: 262 North India

Regional Studies: 270 Africa, or

Regional Studies: 280 Latin America

<sup>xx</sup> Students interested in a pre-med chemistry focus should take BIO 151, 152, 153 instead of the Physics sequence.

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Communication Studies (AA.338)

The Associate of Arts with a concentration in Communication Studies program provides curricular options to prepare a student to transfer into the Bachelor of Arts degree in Communication. The suggested curriculum serves as a general guideline for transfer to most 4-year institutions. Some of the schools to which students may choose to transfer include Antioch University Midwest, The University of Dayton, Ohio State University, Wittenberg University, Wright State University, and Urbana University. A student should talk to a transfer advisor at the institutions he/she is considering attending after completing an Associate of Arts degree at Clark State. The program schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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 with a Communication Studies concentration, a graduate will be able to meet the goals outlined for the general Associate of Arts; additionally, the student will:

- Demonstrate proficiency in a foreign language.
- Speak clearly and accurately in a variety of contexts and formats.
- Work effectively in teams.

### Scholastic Preparation

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into STT 264, Statistics I, will need to take the necessary prerequisite mathematics courses before beginning the Statistics/Math sequence. Ideally, students should also have taken a foreign language in high school. Those students who have not taken a foreign language in high school should include a full year of college-level foreign language among their electives. Some institutions do not require foreign language for a Bachelor of Arts degree in Communication; check the institutions you are considering for details on foreign language requirements. If foreign language is not required, an elective may be substituted in the suggested curriculum. Talk to your Communication advisor at Clark State for information.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENG 111	English I	4
--	*GLG or BIO	5
HST 111	Western Civilization to the 14th Century	3
ART 130	Appreciation of the Arts	3

**Winter (Quarters)**

ENG 112	English II	4
--	*GLG or BIO	5
HST 112	Western Civilization from the 14th through 18th Centuries	3
COM 121	Public Speaking I	3

**Spring (Quarters)**

COM 111	Interpersonal Communication	3
--	*GLG or BIO*	5
PHL 200	Critical Thinking	3
ITS 103	Information Technology Basics	3
PSY 111	Psychology I	3

**Fall (Quarters)**

SPN 111	Spanish I **	4
COM 131	Introduction to Mass Communication	3
ENG 230	Great Books: World Literature	3
STT 264	Statistics I	4
RST -	RST***	3

**Winter (Quarters)**

SPN 112	Spanish II **	4
COM 170	Small Group Communication	4
THE 130	Introduction to Theatre	or 3
MUS 130	Music Appreciation	3
SOC 110	Sociology	3
PLS 130	Political Issues	3

**Spring (Quarters)**

SPN 113	Spanish III **	4
COM 221	Public Speaking II	3
COM 270	Communication Internship	3
ENG 221	Business Communication	3
HUM 299	Capstone Seminar	3
GEO 220	World Regional Geography	or
ECO 110	General Economics	3
Total Credit Hours (Quarters)		100

\* Science classes chosen must meet either Option 1 or Option 2 for an AA degree, as listed in the Clark State catalog. Select classes that are compatible with the degree plan at the intended transfer institution.  
 \*\*Foreign Language requirement: Some institutions do not require foreign language for a Bachelor of Arts degree in Communication; check the institutions you are considering for details on foreign language requirements. If foreign language is not required, electives of your choice may be substituted in the suggested curriculum; talk to your Communication advisor at Clark State for assistance.  
 \*\*\* Regional Studies Course Choose from:  
 Regional Studies: 262 North India  
 Regional Studies: 270 Africa, or  
 Regional Studies: 280 Latin America

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Engineering Transfer (324)

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 full-time 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 #	Course Title	Credit Hours
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**Fall (Quarters)**

CHM 121	General Chemistry I	5
ENG 111	English I	4
HST 111	Western Civilization to the 14th Century	3
MTH 221	Calculus I	5

**Winter (Quarters)**

DFT 211	Computer-Aided Design I	4
ENG 112	English II	4
HST 112	Western Civilization from the 14th through 18th Centuries	3
MTH 222	Calculus II	5

**Spring (Quarters)**

ENG 230	Great Books: World Literature	3
ART 130	Appreciation of the Arts	3
HST 113	Western Civilization from 19th Century to the Present	3
MTH 223	Calculus III	5
SOC 110	Sociology	3

**Summer (Quarters)**

ECO 110	General Economics	3
MTH 240	Linear Algebra	3
PLS 130	Political Issues	3

**Fall (Quarters)**

MTH 224	Calculus IV/ Multivariate Calculus	5
PHY 250	General Physics I	6
PSY 111	Psychology I	3
GEO 220	World Regional Geography	3
ITS 12K	Keyboarding/Word Processing *	or
ITS 12S	Beginning Spreadsheet *	1

**Winter (Quarters)**

ENT 261	Engineering Mechanics I	5
MTH 230	Differential Equations	or
CHM 122	General Chemistry II	5
MUS 130	Music Appreciation	or
THE 130	Introduction to Theatre	3
PHY 251	General Physics II	5

**Spring (Quarters)**

ENT 262	Engineering Mechanics II	5
HUM 299	Capstone Seminar	3
PHY 252	General Physics III	5
--	**RST	0
Total Credit Hours (Quarters)		109

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.

\*\*\* Regional Studies Course Choose from:

Regional Studies: 262 North India

Regional Studies: 270 Africa, or

Regional Studies: 280 Latin America

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## English Transfer - Wright State University (332W)

The English Transfer program is a curriculum that will prepare a student to transfer into a major in English at Wright State University. It serves as a quarter-by-quarter guideline for transfer.

The program schedule that follows is designed for full-time 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 of Arts degree in Pre-English, a graduate will be able to meet the goals outlined for the general Associate of Arts degree; additionally, the student will:

- Demonstrate familiarity with English, American and/or World Literature (in English).
- Exhibit a high level of writing proficiency.

### Scholastic Preparation:

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into STT 264, Statistics I, will need to take the necessary prerequisite mathematics courses before beginning the Statistics sequence. Ideally, students should also have taken a foreign language in high school. Foreign language proficiency may replace the foreign language courses listed; the student who has taken foreign language courses should consult with advisors at Wright State University regarding this requirement.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENG 111	English I	4
SPN 111	Spanish I	4
HST 111	Western Civilization to the 14th Century	3
ART 130	Appreciation of the Arts	3
ITS 12A	Windows Concepts	2
ITS 12W	Beginning Word Processing	1

**Winter (Quarters)**

ENG 112	English II	4
SPN 112	Spanish II	4
STT 264	Statistics I	4
HST 112	Western Civilization from the 14th through 18th Centuries	3
ITS 12D	Beginning Database	1
ITS 12P	Presentation Graphics	1
ITS 12S	Beginning Spreadsheet	1

**Spring (Quarters)**

SPN 113	Spanish III	4
HST 113	Western Civilization from 19th Century to the Present	3
PSY 111	Psychology I	3
RST -	Regional Studies	3

**Fall (Quarters)**

SPN 211	Spanish IV	4
BIO 141	Evolution, Diversity and Ecology *	or
GLG 131	Physical Geology *	5
PSY 112	Psychology II	3
ENG 230	Great Books: World Literature	3

**Winter (Quarters)**

SPN 212	Spanish V	4
ENG 250	American Literature	3
COM 121	Public Speaking I	3
BIO 142	The Human Organism *	or
GLG 132	Historical Geology *	5

**Spring (Quarters)**

HUM 299	Capstone Seminar	3
BIO 143	Cell Biology/Genetics *	or
GLG 133	Environmental Geology *	5
SOC 110	Sociology	3
PLS 110	American National Government	3
Total Credit Hours (Quarters)		92

\*Students should take either all three BIO courses or all three GLG courses.  
 \*\* Students may also choose one from ENG 261 and ENG 262, British Literature. See elective courses.

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## Math - Wright State University (323W)

The Mathematics Transfer program provides curricular options to prepare a student to transfer into the Bachelor of Arts or the Bachelor of Science degree in Mathematics at Wright State 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 Mathematics in which the student is interested and on the area selected for a minor at Wright State University. The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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. Wright State University offers both Bachelor of Arts and Bachelor of Science degrees in Mathematics. There is some flexibility within these degrees for students to pursue either a minor or a specialized area of study, according to their personal areas of interest. Students interested in pursuing the Pre-Mathematics degree at Clark State are encouraged to contact the Mathematics Undergraduate Program Office at Wright State by calling (937) 775-2785 to arrange a pre-admission advising appointment.

### Learning Outcomes

Upon completion of an Associate degree in Pre-Mathematics, a graduate will be able to meet the goals outlined for the general Associate of Science degree; additionally, the student will:

- Demonstrate proficiency in mathematics beyond calculus.
- Identify applications of mathematical theory to physical and computer sciences.

### Scholastic Preparation

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into MTH 221, Calculus I, will need to take the necessary prerequisite mathematics courses before beginning the Calculus sequence. Ideally, Wright State recommends that students should also have taken a foreign language in high school. Those students who have not taken a foreign language in high school may wish to consider college-level foreign language among their electives.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENG 111	English I	4
MTH 221	Calculus I	5
HST 111	Western Civilization to the 14th Century	3
ART 130	Appreciation of the Arts	3
ITS 12A	Windows Concepts	or
ITS 12W	Beginning Word Processing	1

**Winter (Quarters)**

ENG 112	English II	4
MTH 222	Calculus II	5
ITS 12D	Beginning Database *	or
ITS 12P	Presentation Graphics *	or
ITS 12S	Beginning Spreadsheet *	1
HST 112	Western Civilization from the 14th through 18th Centuries	3
ENG 230	Great Books: World Literature	3

**Spring (Quarters)**

MTH 223	Calculus III	5
CSD 104	Programming Fundamentals	5
HST 113	Western Civilization from 19th Century to the Present	3
PSY 111	Psychology I	3
RST -	***Regional Studies	3

**Fall (Quarters)**

MTH 224	Calculus IV/ Multivariate Calculus	5
PHY 250	General Physics I	6
CSD 224	Java Concepts I	4
PSY 112	Psychology II	3

**Winter (Quarters)**

MTH 230	Differential Equations	5
PHY 251	General Physics II	5
CSD 225	Java Concepts II	4
PHL 205	Deductive Logic	3

**Spring (Quarters)**

HUM 299	Capstone Seminar	3
MTH 240	Linear Algebra	3
PHY 252	General Physics III	5
SOC 110	Sociology	3
PLS 130	Political Issues	3

Total Credit Hours (Quarters)	104
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\* 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 Fundamentals, as a preparatory course before taking other computer courses.

\*\*\* Regional Studies Course Choose from:

Regional Studies: 262 North India

Regional Studies: 270 Africa, or

Regional Studies: 280 Latin America

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## Physics - Wright State University (337W)

The Physics Transfer program provides curricular options to prepare a student to transfer into the Bachelor of Arts or the Bachelor of Science degree in Physics at Wright State 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 Physics in which the student is interested and on the area selected for a minor at Wright State University. The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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. Wright State University offers both Bachelor of Arts and Bachelor of Science degrees in Physics. There is some flexibility within these degrees for students to pursue either a minor or a specialized area of study, according to their personal areas of interest. Students interested in pursuing the Pre-Physics degree at Clark State are encouraged to contact the Physics Undergraduate Program Office at Wright State by calling (937)-775-2954 to arrange a pre-admission advising appointment.

**Learning Outcomes**

Upon completion of an Associate degree in Pre-Physics, a graduate will be able to meet the goals outlined for the general Associate of Science degree; additionally, the student will:

- Demonstrate proficiency in mathematics beyond calculus and in calculus-based Physics.
- Identify applications of Physics theory to other physical and natural sciences.

**Scholastic Preparation**

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into MTH 221, Calculus I, will need to take the necessary prerequisite mathematics courses before beginning the Calculus sequence. Ideally, Wright State recommends that students should also have taken a foreign language in high school. Those students who have not taken a foreign language in high school may wish to consider college-level foreign language among their electives.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENG 111	English I	4
CHM 121	General Chemistry I	5
MTH 221	Calculus I	5
ITS 12A	Windows Concepts (new curriculum item)	2
ITS 12S	Beginning Spreadsheet (new curriculum item)	1
ITS 12W	Beginning Word Processing (new curriculum item)	1

**Winter (Quarters)**

ENG 112	English II	4
CHM 122	General Chemistry II	5
MTH 222	Calculus II	5
ITS 12P	Presentation Graphics *	1
ENG 230	Great Books: World Literature	3

**Spring (Quarters)**

CHM 123	General Chemistry III	5
PHY 250	General Physics I	6
PSY 111	Psychology I	3
MTH 223	Calculus III	5

**Fall (Quarters)**

PHY 251	General Physics II	5
MTH 224	Calculus IV/ Multivariate Calculus	5
HST 111	Western Civilization To the 14th Century	3
PSY 112	Psychology II	3
CSD 224	Java Concepts I	4

**Winter (Quarters)**

PHY 252	General Physics III	5
MTH 230	Differential Equations	5
HST 112	Western Civilization from the 14th through 18th Centuries	3
ART 130	Appreciation of the Arts	3
ITS 12D	Beginning Database	1

**Spring (Quarters)**

HUM 299	Capstone Seminar	3
MTH 240	Linear Algebra	3
HST 113	Western Civilization from 19th Century to the Present	3
SOC 110	Sociology	3
PLS 130	Political Issues	3
RST -	***Regional Studies	3

Total Credit Hours (Quarters) 110

\* 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 12K, Keyboarding/Word Processing, as a preparatory course before taking other computer courses.

\*\*\*Regional Studies Course Choose from:  
 Regional Studies: 262 North India  
 Regional Studies: 270 Africa, or  
 Regional Studies: 280 Latin America

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Psychology Transfer - Wright State University (Bachelor of Arts) (330W)

The Psychology Transfer program provides curricular options to prepare a student to transfer into the Bachelor of Arts or the Bachelor of Science degree in Psychology at Wright State 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 Psychology in which the student is interested and on the area selected for a minor at Wright State University.

The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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.

Wright State University offers both Bachelor of Arts and Bachelor of Science degrees in Psychology. There is considerable flexibility within either of these degrees for students to pursue either a minor or a specialized area of study, including a Bachelor of Science in Psychology with a Concentration in Behavioral Neuroscience. Students interested in pursuing the Pre-Psychology degree at Clark State are encouraged to contact the Psychology Undergraduate Program Office at Wright State by calling 937.775.4155 to arrange a pre-admission advising appointment.

### Learning Outcomes

Upon completion of an Associate degree in Pre-Psychology, a graduate will be able to meet the goals outlined for the general Associate of Arts or Associate of Science degree; additionally, the student will:

- Demonstrate proficiency in a foreign language.
- Assess divergent aspects of individual and group human behavior in a wide variety of contexts.

### Scholastic Preparation

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into STT 264, Statistics I, will need to take the necessary prerequisite mathematics courses before beginning the Statistics/Math sequence. Ideally, students should also have taken a foreign language in high school. Those students who have not taken a foreign language in high school should include a full year of college-level foreign language among their electives.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENG 111	English I	4
PSY 111	Psychology I	3
HST 111	Western Civilization to the 14th Century	3
ART 130	Appreciation of the Arts	3
ITS 12A	Windows Concepts	2
ITS 12W	Beginning Word Processing	1

**Winter (Quarters)**

ENG 112	English II	4
PSY 112	Psychology II	3
STT 264	Statistics I	4
HST 112	Western Civilization from the 14th through 18th Centuries	3
ITS 12D	Beginning Database	1
ITS 12P	Presentation Graphics	1
ITS 12S	Beginning Spreadsheet	1

**Spring (Quarters)**

SOC 110	Sociology	3
HST 113	Western Civilization from 19th Century to the Present	3
ECO 110	General Economics	3
RST -	Regional Studies	3
- -	Literature Arts Elective	3

**Fall (Quarters)**

- -	Literature Arts Elective	3
BIO 141	Evolution, Diversity and Ecology	or
GLG 131	Physical Geology	5
PSY 223	Lifespan Human Growth and Development	5
ENG 230	Great Books: World Literature	3

**Winter (Quarters)**

STT 265	Statistics II	4
PSY 230	Abnormal Psychology	3
COM 121	Public Speaking I	3
BIO 142	The Human Organism	or
GLG 132	Historical Geology	5

**Spring (Quarters)**

HUM 299	Capstone Seminar	3
BIO 143	Cell Biology/Genetics	or
GLG 133	Environmental Geology	5
PLS 110	American National Government	3

Total Credit Hours (Quarters)	90
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\*Students should take either all three BIO courses or all three GLG courses.

\*\*Choose from Regional Studies: Regional Studies: 262: North India, Regional Studies: 270: Africa, or Regional Studies: 280: Latin America

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Psychology Transfer - Wright State University (Bachelor of Science) (326W)

The Psychology Transfer program provides curricular options to prepare a student to transfer into the Bachelor of Arts or the Bachelor of Science degree in Psychology at Wright State 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 Psychology in which the student is interested and on the area selected for a minor at Wright State University.

The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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.

Wright State University offers both Bachelor of Arts and Bachelor of Science degrees in Psychology. There is considerable flexibility within either of these degrees for students to pursue either a minor or a specialized area of study, including a Bachelor of Science in Psychology with a Concentration in Behavioral Neuroscience. Students interested in pursuing the Pre-Psychology degree at Clark State are encouraged to contact the Psychology Undergraduate Program Office at Wright State by calling 937.775.4155 to arrange a pre-admission advising appointment.

### Learning Outcomes

Upon completion of an Associate degree in Pre-Psychology, a graduate will be able to meet the goals outlined for the general Associate of Arts or Associate of Science degree; additionally, the student will:

- Demonstrate proficiency in a foreign language.
- Assess divergent aspects of individual and group human behavior in a wide variety of contexts.

### Scholastic Preparation

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into STT 264, Statistics I, will need to take the necessary prerequisite mathematics courses before beginning the Statistics/Math sequence. Ideally, students should also have taken a foreign language in high school. Those students who have not taken a foreign language in high school should include a full year of college-level foreign language among their electives.



Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENG 111	English I	4
PSY 111	Psychology I	3
HST 111	Western Civilization to the 14th Century	3
ART 130	Appreciation of the Arts	3
ITS 12A	Windows Concepts	or
ITS 12W	Beginning Word Processing	1

**Winter (Quarters)**

ENG 112	English II	4
PSY 112	Psychology II	3
STT 264	Statistics I	4
HST 112	Western Civilization from the 14th through 18th Centuries	3
ITS 12D	Beginning Database	or
ITS 12P	Presentation Graphics	or
ITS 12S	Beginning Spreadsheet	1

**Spring (Quarters)**

SOC 110	Sociology	3
HST 113	Western Civilization from 19th Century to the Present	3
ECO 110	General Economics	3
- -	Regional Studies **	3
STT 265	Statistics II	4

**Fall (Quarters)**

MTH 121	College Algebra I	3
BIO 141	Evolution, Diversity and Ecology	or
BIO 151	Evolution and Ecology	5
PSY 223	Lifespan Human Growth and Development	5
ENG 230	Great Books: World Literature	3

**Winter (Quarters)**

STT 265	Statistics II	4
PSY 230	Abnormal Psychology	3
BIO 142	The Human Organism	or
BIO 152	Human and Animal Anatomy	5
- -	Literature Arts Elective	3

**Spring (Quarters)**

HUM 299	Capstone Seminar	3
BIO 143	Cell Biology/Genetics	or
BIO 153	Cellular Biology and Genetics	5
PLS 110	American National Government	3
Total Credit Hours (Quarters)		88

\*The Psychology Department at WSU strongly encourages BIO for the Science sequence for Psychology majors.(BIO 141, 142, 143). Those interested in the Behavioral neuroscience option should take the Biology sequence designed for Biology majors. (BIO 151, 152, 153).

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semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Social Work Transfer - Wright State University (319W)

The Social Work Transfer program provides curricular options to prepare a student to transfer into the Bachelor of Arts degree in Social Work at Wright State University. It serves as a quarter by quarter guideline for transfer. It is not designed to prepare students with the skills needed to obtain employment in the field of social work upon completion of this associate degree. Students who wish to obtain employment in the social work field upon completion of an associate degree should follow the Social Services Technology Associate of Applied Science degree that is offered at Clark State.

The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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-Social Work, a graduate will be able to meet the goals outlined for the general Associate of Arts degree; additionally, the student will be able to:

- Demonstrate familiarity with social welfare policies and processes.
- Demonstrate a basic understanding of Social Work profession and practice.
- Display an appreciation and respect of diversity.

### Scholastic Preparation

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who did not take this track may require college preparatory classes or additional course work at Clark State.

Foreign language courses are required for BA in social work from WSU. Students may take SPN 111, 112, 113 and 211 at Clark State toward this requirement. Foreign language courses are not required for a Clark State AA degree. Foreign language proficiency may replace the foreign language courses; the student who has taken foreign language courses in high school should consult with advisors at Wright State University regarding this requirement.

## Transfer to Wright State

Admission to Wright State's Social Work program is competitive. Admission requirements include a cumulative GPA of 2.25 or higher, a grade of C or higher in ENG 111 and 112, and completion of the official application to the Social Work program. Students should apply to WSU's Social Work program by January 9th to be considered for admission. Meeting the minimum requirements does not guarantee admission.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

ENG 111	English I	4
BIO 141	Evolution, Diversity and Ecology *	5
PSY 111	Psychology I	3
HST 111	Western Civilization to the 14th Century	3
ITS 12A	Windows Concepts	2

### Winter (Quarters)

ENG 112	English II	4
BIO 142	The Human Organism *	5
SOC 110	Sociology	3
ITS 12W	Beginning Word Processing	1
SWK 100	Introduction to Social Welfare and Social Work	4

### Spring (Quarters)

BIO 143	Cell Biology/Genetics *	5
--	History (Western Civ) Elective (GA) **	3
PSY 223	Lifespan Human Growth and Development	5
SWK 136	Affective Education ***	4
ITS 12S	Beginning Spreadsheet	1

### Fall (Quarters)

MTH 105	Mathematics and Today's World	3
ECO 110	General Economics	3
ENG 230	Great Books: World Literature	3
ITS 12D	Beginning Database	1
PSY 112	Psychology II	3

### Winter (Quarters)

ART 130	Appreciation of the Arts	3
PLS 130	Political Issues	3
SWK 121	Social Work Methods and Procedures	5
--	SW 272-Cultural Competence in a Diverse World #	4
ITS 12P	Presentation Graphics	1

### Spring (Quarters)

HUM 299	Capstone Seminar	3
--	Philosophy Elective ^	3
--	Literature and Arts Elective (GA) ^^	3
--	Non Western World Elective (GA) ^^	3
SWK 131	Social Policy and Services for Assoc. of Arts/Pre-SWK Majors ##	4.2
Total Credit Hours (Quarters)		97.2

\* Recommend taking the BIO 141, 142, 143 sequence to meet Natural Science requirement since BIO 142 or BIO 110 is required as one of the natural science courses for this program. BIO 151, 152, 153 sequence can be substituted for BIO 141, 142, 143.

\*\* Students may choose from the following western civilization courses: HST 112 or HST 113.

\*\*\* COM 111, Interpersonal Communications, may be substituted for SWK 136, Affective Education.

# CSCC students will enroll in SWK 272 at WSU via either SOCHE or dual admission process. If large enough cohort of students enrolled, course may be offered by WSU at the Greene Center.

## SWK 130 and SWK 271 can be substituted for SWK 131.

^ Students may choose from PHL 110, 111, 200, 205, 210, 220, 230, 240, or 250.

^^ Students may choose from the following CSCC Arts or Literature courses: ART 133, 134, 135, or 138; THE 105, 130, 241, 242, or 243; ENG 130, 241, 243, 261, or 262.

^^^ Students may choose from the following CSCC (Non-western) courses - GEO 220, PHL 240, SOC 220, RST 260, RST 270, RST 280.

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## Associate of Arts - Teacher Education Transfer Concentration (331)

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, and Antioch University Midwest.

The program schedule that follows is designed for full-time 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 coursework 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 # Course Title Credit Hours

#### Fall (Quarters)

ENG 111	English I	4
PSY 111	Psychology I	3
PHL 200	Critical Thinking	3
ITS 103	Information Technology Basics	3
--	Science *	4

#### Winter (Quarters)

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

#### Spring (Quarters)

COM 121	Public Speaking I	3
SOC 110	Sociology	3
PSY 221	Human Growth and Development I ^	3
--	Science *	4
--	Concentration area elective, EDU course, other elective **	3

#### Fall (Quarters)

ENG 230	Great Books: World Literature	3
HST 111	Western Civilization To the 14th Century ****	or
HST 112	Western Civilization from the 14th through 18th Centuries ****	or
HST 113	Western Civilization from 19th Century to the Present ****	3

HST 121	American History to 1810 ****	or
HST 122	American History 1810-1900 ****	or
HST 123	American History 1900-Present ****	3
--	Concentration area elective, EDU course, other elective **	3
--	Concentration area elective, EDU course, other elective **	3

#### Winter (Quarters)

HST 111	Western Civilization to the 14th Century ****	or
HST 112	Western Civilization from the 14th through 18th Centuries ****	or
HST 113	Western Civilization from 19th Century to the Present ****	3
HST 121	American History to 1810 *	or
HST 122	American History 1810-1900 *	or
HST 123	American History 1900-Present *	3
--	Concentration area elective, EDU course, other elective **	3
--	Concentration area elective, EDU course, other elective **	3
STT 264	Statistics I	4

#### Spring (Quarters)

HUM 299	Capstone Seminar	3
PSY 222	Human Growth and Development II ^	3
--	Literature/Arts Elective ***	3
--	Concentration area elective, EDU course, other elective **	3
--	Concentration area elective, EDU course, other elective **	3
Total Credit Hours (Quarters)		96

\* Science classes chosen must meet either Option 1 or Option 2 in the AA degree, as listed in the Clark State catalog. 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 in the Clark State catalog.

^ Some transfer Institutions may accept PSY 223, Lifespan Growth and Development (5 cr hrs) as an alternate for PSY 221 and PSY 222

\*\*\*\* Choose different number than from above - same course cannot be used twice

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Teacher Education Middle Child Language Arts/Social Studies - Wright State University (333W)

The Teacher Education Middle Child Language Arts/Social Studies Transfer program provides curricular options to prepare a student to transfer into the Bachelor of Science degree in Teacher Education Middle Child at Wright State 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 specialization in which the student is interested and on the area selected for a minor at Wright State University. The Wright State Teacher Education Middle Child program requires specialization in two areas, selected from language arts, social studies, mathematics, and sciences. Please note that the Bachelor of Science degree in Teacher Education does not grant a teaching license; additional study is required to attain a teaching license. The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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. Wright State University offers a Bachelor of Science degree in Teacher Education Middle Child. There is some flexibility within this degree for students to pursue areas of specialization, according to their personal areas of interest. Students interested in pursuing the Pre-Teacher Education degree at Clark State are encouraged to contact the Teacher Education Undergraduate Program Office at Wright State by calling (937) 775-3086 to arrange a pre-admission advising appointment.

### Learning Outcomes

Upon completion of an Associate degree in Pre-Teacher Education, a graduate will be able to meet the goals outlined for the general Associate of Arts or Associate of Science degree; additionally, the student will:

- Demonstrate an understanding of child growth and development.
- Demonstrate a global understanding of education in the United States and the teaching profession.
- Promote child development and learning.
- Display an appreciation and respect of diversity

### Scholastic Preparation

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into STT 264, Statistics I, will need to take the necessary prerequisite mathematics courses before beginning the Statistics sequence. Ideally, Wright State recommends that students should also have taken a foreign language in high school. Those students who have not taken a foreign language in high school may wish to consider college-level foreign language among their electives.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
ENG 111	English I	4
PSY 111	Psychology I	3
HST 121	American History to 1810	3
ART 130	Appreciation of the Arts	3
ITS 12A	Windows Concepts *	or
ITS 12W	Beginning Word Processing *	1
<b>Winter (Quarters)</b>		
ENG 112	English II	4
PSY 112	Psychology II	3
STT 264	Statistics I	4
HST 122	American History 1810-1900	3
ITS 12D	Beginning Database *	or
ITS 12P	Presentation Graphics *	or
ITS 12S	Beginning Spreadsheet *	1
<b>Spring (Quarters)</b>		
STT 265	Statistics II	4
HST 123	American History 1900-Present	3
ECO 110	General Economics	3
- -	RST **	3
EDU 216	Technology for Educators	4
EMS 171	Basic Life Support: CPR	1
<b>Fall (Quarters)</b>		
EDU 110	Introduction to Education	5
CHM 115	Introduction to General Chemistry	5
HST 111	Western Civilization to the 14th Century	3
ENG 230	Great Books: World Literature	3
SOC 110	Sociology	3
<b>Winter (Quarters)</b>		
PSY 223	Lifespan Human Growth and Development	5
HST 112	Western Civilization from the 14th through 18th Centuries	3
PHY 110	Fundamentals of Physics	5
GEO 110	World Human Geography	3
- -	Choose from ART, THE or ENG (not ENG 135, 221 or 223)	3
<b>Spring (Quarters)</b>		
HUM 299	Capstone Seminar	3
BIO 110	Fundamentals of Human Biology	4
GLG 133	Environmental Geology	5
HST 113	Western Civilization from 19th Century to the Present	3
COM 131	Introduction to Mass Communication	3
Total Credit Hours (Quarters)		104

Recommended electives include EDU 217 (equivalent to WSU EDS 333), SOC 220 (equivalent to WSU CST 241), PLS 130 (equivalent to WSU PLS 200), one of PLS 110 or 230 (equivalent to WSU PLS 212 or 222).

\* 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 Fundamentals, as a preparatory course before taking other computer courses.

1 PSY 223 should be replaced by Educational Psychology when the new course is available

\*\*\* Regional Studies Course Choose from:

Regional Studies: 262 North India

Regional Studies: 270 Africa, or

Regional Studies: 280 Latin America

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Teacher Education Middle Child Math/Science - Wright State University (334W)

The Teacher Education Middle Child Math/Science Transfer program provides curricular options to prepare a student to transfer into the Bachelor of Science degree in Teacher Education Middle Child at Wright State 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 specialization in which the student is interested and on the area selected for a minor at Wright State University. The Wright State Teacher Education Middle Child program requires specialization in two areas, selected from language arts, social studies, mathematics, and sciences. Please note that the Bachelor of Science degree in Teacher Education does not grant a teaching license; additional study is required to attain a teaching license. The program schedules that follow are designed for full-time students who have completed all prerequisites and who have no college preparatory education recommendations. Some 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. Wright State University offers a Bachelor of Science degree in Teacher Education Middle Child. There is some flexibility within this degree for students to pursue areas of specialization, according to their personal areas of interest. Students interested in pursuing the Pre-Teacher Education degree at Clark State are encouraged to contact the Teacher Education Undergraduate Program Office at Wright State by calling (937) 775-3086 to arrange a pre-admission advising appointment.

### Learning Outcomes

Upon completion of an Associate degree in pre-Teacher Education, a graduate will be able to meet the goals outlined for the general Associate of Arts or Associate of Science degree; additionally, the student will:

- Demonstrate an understanding of child growth and development.
- Demonstrate a global understanding of education in the United States and the teaching profession.
- Promote child development and learning.
- Display an appreciation and respect of diversity

### Scholastic Preparation

Students entering this program should have taken the college preparatory courses offered by their high schools. Students who do not test into MTH 121, College Algebra, will need to take the necessary prerequisite mathematics courses before beginning the mathematics sequence. Ideally, Wright State recommends that students should also have taken a foreign language in high school. Those students who have not taken a foreign language in high school may wish to consider college-level foreign language among their electives.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

ENG 111	English I	4
PSY 111	Psychology I	3
HST 121	American History to 1810	3
ART 130	Appreciation of the Arts	3
ITS 12A	Windows Concepts	or
ITS 12W	Beginning Word Processing	1

#### Winter (Quarters)

ENG 112	English II	4
PSY 112	Psychology II	3
STT 264	Statistics I	4
HST 122	American History 1810-1900	3
ITS 12D	Beginning Database	or
ITS 12P	Presentation Graphics	or
ITS 12S	Beginning Spreadsheet	1

#### Spring (Quarters)

STT 265	Statistics II	4
HST 123	American History 1900-Present	3
PHY 105	Fundamentals of Scientific Methods and Problem Solving	3
COM 131	Introduction to Mass Communication	3
EDU 216	Technology for Educators	4
EMS 171	Basic Life Support: CPR	1

#### Fall (Quarters)

EDU 110	Introduction to Education	5
BIO 141	Evolution, Diversity and Ecology 1	5
ENG 230	Great Books: World Literature	3
HST 111	Western Civilization To the 14th Century	3
MTH 121	College Algebra I	or
MTH 120	College Algebra IA	3

## Winter (Quarters)

PSY 223	Lifespan Human Growth and Development <sup>2</sup>	5
BIO 142	The Human Organism 1	5
HST 112	Western Civilization from the 14th through 18th Centuries	3
GEO 110	World Human Geography	3

## Spring (Quarters)

HUM 299	Capstone Seminar	3
HST 113	Western Civilization from 19th Century to the Present	3
BIO 143	Cell Biology/Genetics 1	5
SOC 110	Sociology	3
Total Credit Hours (Quarters)		96

Recommended Electives include EDU 217 (equivalent to WSU EDS 333), Soc 220 (equivalent to WSU CST 241), PLS 130 (equivalent to WSU PLS 200), one of PLS 110 or 230 (equivalent to WSU PLS 212 or 222).

\*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 Fundamentals, as a preparatory course before taking other computer courses.

1 A different full-year Science sequence may be substituted for one of the WSU GE Science requirements.

2 PSY 223 should be replaced by Educational Psychology when the new course is available.

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Teacher Education Transfer- Early Childhood Education (316)

The Associate of Arts Early Childhood Education Transfer concentration is designed for students who plan to transfer into an Early Childhood Teacher Education program at a four-year college or university. It is not designed to prepare students with all the skills needed to obtain employment in an Early Childhood Education setting upon graduation.

Students seeking an Associate of Arts Early Childhood Education Transfer degree 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 include: University of Dayton, Urbana University, Wittenberg University, Wright State University and Antioch University Midwest.

Students completing this degree option will satisfy many of the general education courses required for transfer to a four-year teacher preparation program. In addition, students will complete several courses that focus on the foundations of teaching and education, and will prove to be especially helpful

to those students interested in teaching at the Kindergarten through third grade levels.

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 requirements, will require additional quarters of study. Students should consult their academic advisors 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 Early Childhood Education transfer concentration the graduate will be able to:

- Demonstrate an understanding of child growth and development
- Demonstrate a global understanding of education in the United States and the teaching profession
- 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 additional course work at Clark State.

## Transferability

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 credits. Students should consult with their academic advisors and their intended transfer institutions for help in planning their schedules.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

ENG 111	English I	4
PSY 111	Psychology I	3
PHL 200	Critical Thinking	3
ITS 103	Information Technology Basics	3
--	Science *	4

### Winter (Quarters)

ENG 112	English II	4
PSY 112	Psychology II	3
PHL 210	Ethics	3
EEP 122	Diversity in Education	3
--	Science *	4

**Spring (Quarters)**

COM 121	Public Speaking I	3
SOC 110	Sociology	3
PSY 221	Human Growth and Development I	3
ART 130	Appreciation of the Arts	or
THE 130	Introduction to Theatre	3
--	Science *	4

**Fall (Quarters)**

ENG 230	Great Books: World Literature	3
HST 111	Western Civilization to the 14th Century	or
HST 112	Western Civilization from the 14th through 18th Centuries	or
HST 113	Western Civilization from 19th Century to the Present	3
HST 121	American History to 1810	or
HST 122	American History 1810-1900	or
HST 123	American History 1900-Present	3
EDU 110	Introduction to Education **	5
EEP 200	Educational Teaming: Working with Parents	3

**Winter (Quarters)**

STT 264	Statistics I	4
HST 111	Western Civilization To the 14th Century	or
HST 112	Western Civilization from the 14th through 18th Centuries	or
HST 113	Western Civilization from 19th Century to the Present	3
HST 121	American History to 1810	or
HST 122	American History 1810-1900	or
HST 123	American History 1900-Present	3
EDU 217	Individuals with Exceptionalities **	4
--	Concentration area elective, other elective	3

**Spring (Quarters)**

HUM 299	Capstone Seminar	3
SOC 220	Comparing Cultures	or
SOC 240	Racial and Cultural Minorities	3
--	Literature/Arts Elective ***	3
EDU 216	Technology for Educators **	4
--	Concentration area elective, other elective	3
Total Credit Hours (Quarters)		100

\* Science classes chosen must meet either Option 1 or Option 2 in the AA degree, as listed in the catalog under Associates of Arts Degree area. Select classes that are compatible with the degree plan at the intended transfer institution.

\*\* TAG courses. In addition, 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.

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

# Advanced Technical Intelligence

## Advanced Technical Intelligence (329)

The Advanced Technical Intelligence (ATI) degree program is designed for individuals desiring a career in technical intelligence and, in particular, Advanced Geospatial Intelligence (AGI) and Measurement and Signature Intelligence (MASINT). The course of study is also designed for working professionals wishing to extend their knowledge of the intelligence field or those desiring to change career paths within industry and government.

Students must be US Citizens and be able to qualify for a security clearance in order to complete the course of study. Students must complete a BCI background check before beginning ATI 101. Passing the background check does not necessarily indicate that a student will qualify for a security clearance. The program serves to develop the technical intelligence workforce of the future by familiarizing the students with the technical intelligence field and by providing them core knowledge of the collection and analysis methods applied by intelligence professionals to solve today's hardest intelligence problems. There is a critical shortfall in trained and cleared analysts, engineers, scientists, managers, information technologists, and other support fields to meet the Nation's need to make use of today's intelligence systems and to prepare for tomorrow's advanced technologies that are currently under development by the Department of Defense, National Intelligence Organizations, and Service and National acquisition programs.

### Learning Outcomes

Upon completion of the Associate of Science degree in Advanced Technical Intelligence, a graduate will be able to meet the goals outlined for the general associate of science degree additionally, the student will:

- Obtain a security clearance.
- Demonstrate knowledge of the collection methods applied by technical intelligence professionals.
- Demonstrate proficiency in analysis methods applied by technical intelligence professionals.

### Scholastic Preparation

Students starting the degree program should have completed high school algebra, trigonometry, and physics. Students who do not have this math background may be required to take college preparatory math classes before enrolling in MTH 121. Students who have not had a high school physics class may want to consider taking PHY 110 before enrolling in PHY 111.

Students who wish to transfer credits to a baccalaureate program should consult with the institution to which they intend to transfer. This degree plan serves as a general guideline for

transfer. The best selection of courses for a given student will vary depending upon the area of study in which the student is interested and the institution to which the student plans to transfer. Students wishing to pursue baccalaureate degrees in science, engineering, or mathematics should take calculus and the calculus-based physics sequence.

### Course # Course Title Credit Hours

#### Fall (Quarters)

ATI 101	Introduction to the Intelligence Community	3
ENG 111	English I	4
GEO 110	World Human Geography	3

HST 111	Western Civilization To the 14th Century	3
ITS 12A	Windows Concepts	2
ITS 12W	Beginning Word Processing	1
MTH 121	College Algebra I *	3

#### Winter (Quarters)

CHM 110	Fundamentals of Chemistry	or
CHM 115	Introduction to General Chemistry	5
ENG 112	English II	4
HST 112	Western Civilization from the 14th through 18th Centuries	3
ITS 12D	Beginning Database	1
ITS 12P	Presentation Graphics	1
ITS 12S	Beginning Spreadsheet	1
MTH 140	Trigonometry *	3

#### Spring (Quarters)

ART 130	Appreciation of the Arts	3
COM 121	Public Speaking I	3
ENG 223	Technical Report Writing	3
HST 113	Western Civilization from 19th Century to the Present	3
MTH 122	College Algebra II *	3
PHL 200	Critical Thinking	or
PHL 205	Deductive Logic	3

#### Fall (Semesters)

ATI 1205	Introduction to Advanced Geospatial Intelligence	3
ENG 2300	Great Books: World Literature	3
GEO 2200	World Regional Geography	3
PHY 1501	General Physics I with Algebra **	5
PLS 2300	Introduction to International Relations	3



## Spring (Semesters)

ATI 2105	Introduction to Radar	3
ATI 2205	MASINT Fundamentals	or
ATI 2200	Introduction to Large-Area Surveillance from Space	3
HUM 2899	Capstone Seminar	3
PHY 1502	General Physics II with Algebra **	5
RST - -	Regional Studies Elective***	3
Total Credit Hours (Quarters)		55
Total Credit Hours (Semesters)		34

\*May substitute MTH 221, MTH 222, and MTH 223 for MTH 121, MTH 122, and MTH 140\*\*May substitute PHY 2501 and PHY 2502 for PHY 1501 and PHY 1502\*\*\*Any regional studies course using a discipline code of RST

# Advanced Technical Intelligence Certificates

## Advanced Technical Intelligence Certificate (484DC)

Students with sufficient high school background in math and science may be able to have certain course prerequisites waived to initially enroll in an ATI course. Students requiring CPE or other college preparatory coursework should begin the CPE courses prior to the summer term.

Students must be US Citizens and be able to qualify for a security clearance in order to complete the course of study. Students must complete a BCI background check before beginning ATI 101. Passing the background check does not necessarily indicate that a student will qualify for a security clearance. In order to earn the certificate, all course requirements must be met. Students with college degrees or prior college work may be able to transfer in many of the non ATI courses. Students may also earn credit for some of the non ATI courses via proficiency exam.

When work for this certificate has been completed, contact the Business and Applied Technologies Division Office in the Brinkman Educational Center, Room 201 or call 937-328-6037 to apply for the certificate.

## Course # Course Title Credit Hours

### Summer (Quarters)

ENG 111	English I	4
PHY 111	Physics I	5
MTH 121	College Algebra I *	3

### Fall (Quarters)

ATI 101	Introduction to the Intelligence Community	3
ATI 110	Fundamentals of Remote Sensing in Intelligence	3

### Winter (Quarters)

ATI 210	Introduction to Spectral Sensing w/ Applications in Intelligence	3
ATI 215	Introduction to Radar for MASINT	3

### Spring (Quarters)

ATI 220	Introduction to Overhead Non-Imaging Infrared (ONIR)	3
ATI 225	MASINT Fundamentals	3
Total Credit Hours (Quarters)		30

\*Students who have not taken a college-level math class in the last five years are required to take the math placement test. If it has been more than five years since a student has successfully completed a college-level math class at the level of MTH 121 or higher, the MTH 121 requirement will be waived if the student tests beyond MTH 121 on the math placement test. Students may also substitute any higher-level College Algebra or Calculus class for MTH 121.

# Agriculture and Horticulture

## Agricultural Business (120)

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 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 of Applied Business degree in Agricultural Business Technology, 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.

### Scholastic Preparation

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

### Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
AGR 104	Agricultural Survey and Employment Skills	3
AGR 150	Soil Science	4
ENG 111	English I	4
ENT 121	Computer Basics for Applied Technology	3
--	Social Science Elective	3
<b>Winter (Quarters)</b>		
AGR 108	Technical Math for Agriculture	3
AGR 115	Welding	3
AGR 151	Soil Fertility	4
BIO 140	Plant Science	4
ENG 112	English II	4
<b>Spring (Quarters)</b>		
AGR 19B	Agricultural Business Co-Op Experience I	4
<b>Summer (Quarters)</b>		
AGR 109	Animal Agriculture	4
<b>Fall (Semesters)</b>		
AGR 2200	Crop Production	3
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
COM 1120	Public Speaking I	3
MKT 2450	Sales and Sales Management	3
<b>Spring (Semesters)</b>		
AGR 2650	Integrated Pest Management	4
AGR 2775	Ag Marketing and Trade	3
AGR 2800	Equipment Mgt., Maintenance, & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
--	Humanities/Social Science Elective (GA)	3
Total Credit Hours (Quarters)		43
Total Credit Hours (Semesters)		34

# Agricultural Business - Agricultural Engineering Technology Option (121)

The Agricultural Engineering Technology option emphasizes preparation for agriculture service industry occupations, especially those with a mechanical emphasis. Courses are offered in powered equipment maintenance, facility maintenance and construction, hardscape construction, soil science, sales, and business management. 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 careers with a mechanical emphasis in the agricultural industry.

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. Students should consult their academic advisor for help in planning their schedules.

## Learning Outcomes

Upon completion of an Associate of Applied Business degree in Agriculture Engineering Technology, 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.
- Weld using basic arc welding and oxy-acetylene welding techniques.
- Demonstrate basic trouble-shooting and maintenance skills for small gas engines.

## Scholastic Preparation

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

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
AGR 104	Agricultural Survey and Employment Skills	3
AGR 150	Soil Science	4
AGR 187	Small Gas Engines	4
ENG 111	English I	4
ENT 121	Computer Basics for Applied Technology 3	
<b>Winter (Quarters)</b>		
AGR 108	Technical Math for Agriculture	3
AGR 115	Welding	3
AGR 151	Soil Fertility	4
COM 121	Public Speaking I	3
ENG 112	English II	4
<b>Spring (Quarters)</b>		
AGR 219	Landscape Construction	4
AGR 224	Irrigation Systems	3
AGR 245	Advanced Welding	3
AGR 252	Equipment Maintenance and Operation	4
--	Humanities/Social Science Elective (GA)	3
<b>Summer (Quarters)</b>		
AGR 19E	Agricultural Engineering Co-op Experience I	4
ENG 223	Technical Report Writing	3
<b>Fall (Semesters)</b>		
AGR 2700	Ag Business Management	4
INT 1201	Hydraulics and Pneumatics I	3
MKT 2450	Sales and Sales Management	3
--	Technical Elective*	3
--	Humanities/Social Science Elective	3
<b>Spring (Semesters)</b>		
AGR 1600	Landscape Maintenance	4
AGR 2450	Irrigation Systems	3
AGR 2850	Agricultural Capstone Seminar	3
INT 1400	Mechanical Maintenance	3
--	Social Science Elective	3
Total Credit Hours (Quarters)		59
Total Credit Hours (Semesters)		32

\* AGR electives may be any AGR course not required above and must total a minimum of 3 semester hours.

# Horticulture Industries - Golf Course Operations Option (131)

The Horticultural Industries program provides basic preparation for careers in the landscape and turfgrass industries. The campus grounds, including a greenhouse facility and a one-hole golf course, act as a working laboratory to give students practical training. Clark State students can specialize in turf science and landscape maintenance as they apply to maintaining the golf course leading to a career in the golf course industry.

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 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 of Applied Science degree in Golf Course Operations, 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.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point, many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
AGR 104	Agricultural Survey and Employment Skills	3
AGR 133	Turf Science	3
AGR 150	Soil Science	4
AGR 225	Landscape Maintenance	4
ENG 111	English I	4
<b>Winter (Quarters)</b>		
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 Technology	3
<b>Spring (Quarters)</b>		
AGR 19G	Golf Course Co-op Experience I	3
AGR 219	Landscape Construction	4
--	Humanities/Social Science Elective (GA)	3
<b>Summer (Quarters)</b>		
AGR 29G	Golf Course Co-op Experience II	3
<b>Fall (Semesters)</b>		
AGR 2100	Woody Plant Materials	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
COM 1120	Public Speaking I	3
<b>Spring (Semesters)</b>		
AGR 2450	Irrigation Systems	3
AGR 2650	Integrated Pest Management	4
AGR 2800	Equipment Mgt., Maintenance, & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
--	Humanities/Social Science Elective (GA)	3
Total Credit Hours (Quarters)		49
Total Credit Hours (Semesters)		32

# Horticulture Industries - Landscape Design Option (135)

The Horticultural Industries program provides basic preparation for careers in the landscape and turfgrass industries. The campus grounds, including a greenhouse facility and a one-hole golf course, act as a working laboratory to give students practical training. Clark State students can specialize in landscape design. Landscape plant materials, drafting and computer-aided design are emphasized leading to careers in the landscape industry.

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 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 of Applied Science degree in Landscape Design, 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.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
AGR 104	Agricultural Survey and Employment Skills	3
AGR 143	Landscape Plant Materials	4
AGR 150	Soil Science	4
DFT 101	Drafting I	3
ENG 111	English I	4
<b>Winter (Quarters)</b>		
AGR 108	Technical Math for Agriculture	3
AGR 151	Soil Fertility	4
AGR 226	Landscape Design	4
BIO 140	Plant Science	4
ENT 121	Computer Basics for Applied Technology	3
<b>Spring (Quarters)</b>		
AGR 19L	Landscape Design Co-op Experience I	3
AGR 145	Herbaceous Plant Materials	4
ENG 112	English II	4
<b>Summer (Quarters)</b>		
AGR 29L	Landscape Design Co-op Experience II	3
--	Humanities/Social Science Elective(GA)	3
<b>Fall (Semesters)</b>		
AGR 1600	Landscape Maintenance	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
MKT 2450	Sales and Sales Management	3
<b>Spring (Semesters)</b>		
AGR 1700	Landscape Construction	4
AGR 2500	Advanced Landscape Design	4
AGR 2850	Agricultural Capstone Seminar	3
COM 1120	Public Speaking I	3
--	Humanities/Social Science Elective(GA)	3
Total Credit Hours (Quarters)		53
Total Credit Hours (Semesters)		32

# Horticulture Industries - Nursery Operations Option (133)

The Horticultural Industries program provides basic preparation for careers in the landscape and turfgrass industries. The campus grounds, including a greenhouse facility and a one-hole golf course, act as a working laboratory to give students practical training. Clark State students can specialize in nursery operations. Landscape plant materials, landscape installation and landscape plant production are areas emphasized leading to careers in the garden center and nursery industries.

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 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 of Applied Science degree in Nursery Operations, 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.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
AGR 104	Agricultural Survey and Employment Skills	3
AGR 150	Soil Science	4
AGR 225	Landscape Maintenance	4
ENG 111	English I	4
ENT 121	Computer Basics for Applied Technology 3	
<b>Winter (Quarters)</b>		
AGR 108	Technical Math for Agriculture	3
AGR 151	Soil Fertility	4
AGR 226	Landscape Design	4
BIO 140	Plant Science	4
<b>Spring (Quarters)</b>		
AGR 19N	Nursery Operations Co-op Experience I	3
AGR 145	Herbaceous Plant Materials	4
ENG 112	English II	4
<b>Summer (Quarters)</b>		
AGR 29N	Nursery Operations Co-op Experience II	3
--	Humanities/Social Science Elective (GA)	3
<b>Fall (Semesters)</b>		
AGR 2100	Woody Plant Materials	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
COM 1120	Public Speaking I	3
MKT 2450	Sales and Sales Management	3
<b>Spring (Semesters)</b>		
AGR 1700	Landscape Construction	4
AGR 2300	Plant Propagation	4
AGR 2650	Integrated Pest Management	4
AGR 2850	Agricultural Capstone Seminar	3
--	Humanities/Social Science Elective (GA)	3
	Total Credit Hours (Quarters)	50
	Total Credit Hours (Semesters)	36

# Horticulture Industries - Parks and Recreation Operations Option (136)

The Horticultural Industries program provides basic preparation for careers in the landscape and turfgrass industries. The campus grounds, including a greenhouse facility and a one-hole golf course, act as a working laboratory to give students practical training. Clark State students can specialize in Parks and Recreation Operations. Tree and shrub identification, landscape maintenance, turf science and communication skills are emphasized leading to careers in the parks and recreational industry.

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 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 of Applied Science degree in Parks and Recreation Operations, 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.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
AGR 104	Agricultural Survey and Employment Skills	3
AGR 133	Turf Science	3
AGR 150	Soil Science	4
AGR 225	Landscape Maintenance	4
ENG 111	English I	4
<b>Winter (Quarters)</b>		
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 Technology	3
<b>Spring (Quarters)</b>		
AGR 19P	Parks and Recreation Co-op Experience I	3
AGR 219	Landscape Construction	4
<b>Summer (Quarters)</b>		
AGR 29P	Parks and Recreation Co-op Experience II	3
COM 111	Interpersonal Communication	3
<b>Fall (Semesters)</b>		
AGR 2100	Woody Plant Materials	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
COM 1120	Public Speaking I	3
<b>Spring (Semesters)</b>		
AGR 2150	Herbaceous Plant Materials	3
AGR 2650	Integrated Pest Management	4
AGR 2800	Equipment Mgt., Maintenance, & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
--	Humanities/Social Science Elective (GA)	3
Total Credit Hours (Quarters)		49
Total Credit Hours (Semesters)		32

# Horticulture Industries - Turf and Landscape Operations Option (134)

The Horticultural Industries program provides basic preparation for careers in the landscape and turfgrass industries. The campus grounds, including a greenhouse facility and a one-hole golf course, act as a working laboratory to give students practical training. Clark State students can specialize in turf and landscape operations. Turfgrass science and turf management as well as landscape maintenance are emphasized leading to careers in the lawn care and landscape maintenance industries.

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 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 of Applied Science degree in Turf and Landscape Operations, 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.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
<b>Fall (Quarters)</b>		
AGR 104	Agricultural Survey and Employment Skills	3
AGR 133	Turf Science	3
AGR 150	Soil Science	4
AGR 225	Landscape Maintenance	4
ENG 111	English I	4
<b>Winter (Quarters)</b>		
AGR 108	Technical Math for Agriculture	3
AGR 151	Soil Fertility	4
BIO 140	Plant Science	4
COM 121	Public Speaking I	3
ENG 112	English II	4
<b>Spring (Quarters)</b>		
AGR 19T	Turf and Landscape Operations Co-op Experience I	3
AGR 219	Landscape Construction	4
ENT 121	Computer Basics for Applied Technology	3
<b>Summer (Quarters)</b>		
AGR 29T	Turf and Landscape Operations Co-op Experience II	3
--	Humanities/Social Science Elective (GA)	3
<b>Fall (Semesters)</b>		
AGR 2100	Woody Plant Materials	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
MKT 2450	Sales and Sales Management	3
<b>Spring (Semesters)</b>		
AGR 2150	Herbaceous Plant Materials	3
AGR 2650	Integrated Pest Management	4
AGR 2800	Equipment Mgt., Maintenance, & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
--	Humanities/Social Science Elective (GA)	3
	Total Credit Hours (Quarters)	52
	Total Credit Hours (Semesters)	32



# Agriculture and Horticulture Certificates

## Agricultural Business Departmental Certificate (120)

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

Course #	Course Title	Credit Hours
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### Fall (Quarters)

AGR 104	Agricultural Survey and Employment Skills	3
AGR 150	Soil Science	4
AGR 174	Agribusiness Principles	3
ENG 111	English I	4

### Winter (Quarters)

AGR 105	Principles of Ag Sales I	3
AGR 108	Technical Math for Agriculture	3
AGR 151	Soil Fertility	4
ENT 121	Computer Basics for Applied Technology	3

### Spring (Quarters)

AGR 106	Principles of Ag Sales II	3
AGR 206	Agribusiness Marketing	3
Total Credit Hours (Quarters)		33

## Agricultural Engineering Technology Departmental Certificate (120)

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

Course #	Course Title	Credit Hours
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### Fall (Quarters)

AGR 104	Agricultural Survey and Employment Skills	3
AGR 187	Small Gas Engines	4
ENT 121	Computer Basics for Applied Technology	3
INT 120	Hydraulics/Pneumatics I	4

### Winter (Quarters)

AGR 105	Principles of Ag Sales I	3
AGR 115	Welding	3
AGR 252	Equipment Maintenance and Operation	4
ENT 205	Circuits and Machines	4

### Spring (Quarters)

AGR 219	Landscape Construction	4
AGR 245	Advanced Welding	4
AGR -	AGR/INT Elective *	3
INT 170	Mechanical Maintenance	4

Total Credit Hours (Quarters)	43
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\*Any AGR course not required above or INT 120 or INT 150.

## Agricultural Equipment Departmental Certificate (120)

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

Course #	Course Title	Credit Hours
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### Fall (Quarters)

AGR 104	Agricultural Survey and Employment Skills	3
AGR 187	Small Gas Engines	4
AGR 225	Landscape Maintenance	4
ENT 121	Computer Basics for Applied Technology	3

### Winter (Quarters)

AGR 115	Welding	3
AGR 252	Equipment Maintenance and Operation	4
INT 150	Electrical Systems	4
INT 170	Mechanical Maintenance	4

### Spring (Quarters)

AGR 219	Landscape Construction	4
AGR 224	Irrigation Systems	3
AGR 245	Advanced Welding	4
INT 120	Hydraulics/Pneumatics I	4

Total Credit Hours (Quarters)	44
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## Agricultural Pest Departmental Certificate (120)

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

Course #	Course Title	Credit Hours
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### Fall (Quarters)

AGR 104	Agricultural Survey and Employment Skills	3
AGR 122	Plant Pests	4
AGR 150	Soil Science	4
ENT 121	Computer Basics for Applied Technology	3

### Winter (Quarters)

AGR 105	Principles of Ag Sales I	3
AGR 108	Technical Math for Agriculture	3
AGR 253	Pest Management	5
AGR 151	Soil Fertility	4
Total Credit Hours (Quarters)		29

## Landscape Design Departmental Certificate (120)

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

Course #	Course Title	Credit Hours
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### Fall (Quarters)

AGR 104	Agricultural Survey and Employment Skills	3
AGR 143	Landscape Plant Materials	4
AGR 225	Landscape Maintenance	4
DFT 101	Drafting I	3

### Winter (Quarters)

AGR 105	Principles of Ag Sales I	3
AGR 226	Landscape Design	4
DFT 211	Computer-Aided Design I	4
ENT 121	Computer Basics for Applied Technology	3

### Spring (Quarters)

AGR 145	Herbaceous Plant Materials	4
AGR 219	Landscape Construction	4
AGR 287	Computer-Aided Landscape Design	4
Total Credit Hours (Quarters)		40

## Parks and Recreation Operations Departmental Certificate (120)

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 Title	Credit Hours
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### Fall (Quarters)

AGR 104	Agricultural Survey and Employment Skills	3
AGR 133	Turf Science	3
AGR 143	Landscape Plant Materials	4
AGR 150	Soil Science	4
AGR 225	Landscape Maintenance	4

### Winter (Quarters)

AGR 108	Technical Math for Agriculture	3
AGR 151	Soil Fertility	4
AGR 252	Equipment Maintenance and Operation	4
ENT 121	Computer Basics for Applied Technology	3

### Spring (Quarters)

AGR 145	Herbaceous Plant Materials	4
AGR 219	Landscape Construction	4
COM 111	Interpersonal Communication	3
COM 121	Public Speaking I	3
Total Credit Hours (Quarters)		46

## Turf Departmental Certificate (120)

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

Course #	Course Title	Credit Hours
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### Fall (Quarters)

AGR 104	Agricultural Survey and Employment Skills	3
AGR 133	Turf Science	3
AGR 150	Soil Science	4
AGR 225	Landscape Maintenance	4

### Winter (Quarters)

AGR 105	Principles of Ag Sales I	3
AGR 108	Technical Math for Agriculture	3
AGR 151	Soil Fertility	4
AGR 236	Turfgrass Management	3
ENT 121	Computer Basics for Applied Technology	3

Total Credit Hours (Quarters)		30
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# Business

## Accounting (410)

Accountants must have an appreciation for all aspects of business as well as technical proficiency in maintaining accurate records, preparing and analyzing financial statements as well as other types of financial reports. Accountants may work in areas such as general accounting, bookkeeping, auditing, tax preparation, cost accounting, budgeting or financial investigation.

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 12K, Keyboarding/Word Processing.

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. Students should consult their academic advisors for help in planning their schedules.

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

### Learning Outcomes

Upon completion of an Associate of Applied Business degree in Accounting, a graduate will be able to:

- Demonstrate an understanding of federal tax laws and their application to both individuals and business entities.
- Demonstrate the ability to utilize and apply technology as it impacts the accounting profession.
- Apply mathematical concepts and technology to interpret, understand and communicate quantitative data.
- Demonstrate an understanding of the basic concepts of managerial and cost accounting and its role in business and decision making.
- Interpret, analyze and present reliable and relevant information to financial statement users based on generally accepted accounting principles, both manually and electronically.

### Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

ACC 111	Principles of Accounting I	4
COM 121	Public Speaking I	3
ENG 111	English I	4
ITS 12D	Beginning Database	1
MGT 105	Contemporary American Business	3

#### Winter (Quarters)

ACC 112	Principles of Accounting II	4
ENG 112	English II *	or
ENG 135	Business Report Writing *	4
ITS 12S	Beginning Spreadsheet	1
MTH 106	Business Mathematics	3
--	Humanities/Social Science Elective (GA)**	3

#### Spring (Quarters)

ACC 113	Principles of Accounting III	4
ACC 120	Microcomputer Accounting Systems	4
ACC 233	Cost Accounting	4
ECO 221	Principles of Macroeconomics	3
ENG 221	Business Communication	3

#### Fall (Semesters)

ACC 2000	Spreadsheet Accounting	3
ACC 2100	Intermediate Accounting I	4
ACC 2400	Tax Accounting	4
ECO 2210	Principles of Macroeconomics	3
MGT 2600	Legal Environment of Business	3

#### Spring (Semesters)

ACC 2200	Intermediate Accounting II	4
ACC 2500	Accounting Capstone	4
ECO 2220	Principles of Microeconomics	3
MGT 2270	Business Finance ***	3
STT 2640	Elementary Statistics I ****	3

Total Credit Hours (Quarters)	48
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Total Credit Hours (Semesters)	34
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\* ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.

\*\* ECO 110 and ECO 1100 are 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\*\*\*EBE 100/EBE 1000 plus a co-op experience of 2 credit hours or more may be substituted for MGT 2270\*\*\*\* A business elective of at least 3 semester hours may be substituted for STT 2640. It may come from any college-level courses not already prescribed that use the following course codes: HRM, LSC, MGT, MKT, ACC, CSD, CSE, ITS, NTK, OAD, or RES

## Management (435)

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 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.

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 of Applied Business 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.

### Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs

designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

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 (Quarters)

MGT 112	Principles of Management	4
ACC 112	Principles of Accounting II	4
COM 121	Public Speaking I	3
ENG 112	English II	4
MKT 200	Principles of Marketing	4

#### Spring (Quarters)

ECO 222	Principles of Microeconomics	3
ENG 221	Business Communication	3
HRM 225	Human Resource Management	3
ITS 12D	Beginning Database *	1
ITS 12P	Presentation Graphics *	1
ITS 12S	Beginning Spreadsheet *	1
MTH 106	Business Mathematics	3
--	EBE 100 or Technical Elective	2

#### Fall (Semesters)

MGT 2000	Introduction to Project Management	3
MGT 2020	Quality Management	3
MGT 2270	Business Finance	3
ECO 2210	Principles of Macroeconomics	3
--	Technical Elective or Co-op **	3
--	Humanities/Social Science Elective (GA) ***	3

#### Spring (Semesters)

MGT 2600	Legal Environment of Business	3
MGT 2650	Negotiation Skills	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
LSC 2270	Operations Management	3
STT 2640	Elementary Statistics I	3

Total Credit Hours (Quarters) 54

Total Credit Hours (Semesters) 30

\* 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 12K, Keyboarding/Word Processing.

\*\* EBE 100 or EBE 1000 or EBE 2702 or technical elective. Hours must total a minimum of 4 semester hours. Technical electives may come from any college-level course not already prescribed that carries the following subject codes: MGT, HRM, LSC, MKT, ACC, CSD, CSE, GST, ITS, NTK, OAD, RTR, RCR.

# Management - Human Resource Management Option(458)

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 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.

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 of Applied Business 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.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

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

### Winter (Quarters)

COM 121	Public Speaking I	3
ENG 112	English II	4
MGT 112	Principles of Management	4
MKT 200	Principles of Marketing	4
- -	EBE 100 or Technical Elective**	2

### Spring (Quarters)

HRM 225	Human Resource Management	3
ECO 222	Principles of Microeconomics	3
ENG 221	Business Communication	3
ITS 12D	Beginning Database *	1
ITS 12P	Presentation Graphics *	1
ITS 12S	Beginning Spreadsheet *	1
MTH 106	Business Mathematics	3

### Fall (Semesters)

HRM 2300	Training and Development	3
HRM 2350	Employment Law	3
MGT 2000	Introduction to Project Management	or
MGT 2020	Quality Management	3
PSY 1111	Introduction to Psychology	or
SOC 1110	Introduction to Sociology	3
- -	Co-Op or Technical Elective**	3
- -	Humanities/Social Science Elective (GA)***	3

## Spring (Semesters)

HRM 2400	Staffing	3
HRM 2450	Compensation and Benefits	3
MGT 2650	Negotiation Skills	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
STT 2640	Elementary Statistics I	3
Total Credit Hours (Quarters)		50
Total Credit Hours (Semesters)		33

\* 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 12K, Keyboarding/Word Processing.

\*\*EBE 100 or EBE 1000 or EBE 2702 or technical elective. Hours must total a minimum of 4 semester hours. Technical electives may come from any college-level course not already prescribed that carries the following subject codes: MGT, HRM, LSC, MKT, ACC, CSD, CSE, GST, ITS, NTK, OAD, RTR, RCR.

\*\*\* ECO 110/1100 is not acceptable for a social science elective; must meet the GA designation

## Management - Logistics & Supply Chain Management Option (437)

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 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.

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 of Applied Business 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.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

## Course # Course Title Credit Hours

### Fall (Quarters)

MGT 106	Organizational Behavior	4
ENG 111	English I	4
ITS 12S	Beginning Spreadsheet *	1
ITS 103	Information Technology Basics *	3
MTH 106	Business Mathematics	3

### Winter (Quarters)

LSC 210	Purchasing and Supply Management	4
ACC 111	Principles of Accounting I	4
ECO 222	Principles of Microeconomics	3
ENG 112	English II	4
ITS 12P	Presentation Graphics *	1

## Spring (Quarters)

MGT 268	Introduction to International Business	3
COM 121	Public Speaking I	3
ITS 12D	Beginning Database *	1
MKT 200	Principles of Marketing	4
PSY 111	Psychology I	3
--	EBE 100 Technical Elective or **	2

## Fall (Semesters)

MGT 2020	Quality Management	3
LSC 2220	Logistics and Physical Distribution	3
ECO 2210	Principles of Macroeconomics	3
ENG 2211	Business Communication	3
--	Humanities/Social Science Elective (GA) ***	3
--	Co-op or Technical Elective	3

## Spring (Semesters)

MGT 2600	Legal Environment of Business	3
MGT 2650	Negotiation Skills	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
LSC 2270	Operations Management	3
STT 2640	Elementary Statistics I	3
	Total Credit Hours (Quarters)	47
	Total Credit Hours (Semesters)	33

\* 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 12K, Keyboarding/Word Processing.

\*\* EBE 100 or EBE 1000 or EBE 2702 or technical elective. Hours must total a minimum of 4 semester hours. Technical electives may come from any college-level course not already prescribed that carries the following subject codes: MGT, HRM, LSC, MKT, ACC, CSD, CSE, GST, ITS, NTK, OAD, RTR, RCR.

## Management - Marketing and E-Business Option (436)

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 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.

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 of Applied Business 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 and 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.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ACC 111	Principles of Accounting I	4
ENG 111	English I	4
ITS 125	Beginning Spreadsheet *	1
ITS 103	Information Technology Basics *	3
MGT 105	Contemporary American Business	3
MTH 106	Business Mathematics	3

**Winter (Quarters)**

MKT 200	Principles of Marketing	4
ACC 112	Principles of Accounting II	4
ENG 221	Business Communication	3
MGT 112	Principles of Management	4
--	Humanities/Social Science Elective	3

**Spring (Quarters)**

ENG 112	English II	or
ENG 135	Business Report Writing	4
ITS 12D	Beginning Database *	1
MGT 106	Organizational Behavior	4
MGT 200	Introduction to Project Management	or
MGT 202	Quality Management	4
MGT 260	Legal Environment of Business	3
--	EBE 100 or Technical Elective **	3

**Fall (Semesters)**

MKT 2100	Pricing Strategies	3
MKT 2400	Electronic Business Applications	or
MKT 2450	Sales and Sales Management	3
ECO 2210	Principles of Macroeconomics	3
LSC 2220	Logistics and Physical Distribution	3
--	Co-op or Technical Elective	3
--	Humanities/Social Science Elective (GA) ***	3

**Spring (Semesters)**

MKT 2150	Product Management	3
MKT 2550	Promotion & IMC Strategies	3
MGT 2650	Negotiation Skills	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
STT 2640	Elementary Statistics I	3
Total Credit Hours (Quarters)		54
Total Credit Hours (Semesters)		33

\* 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 12K, Keyboarding/Word Processing.

\*\* EBE 100 or EBE 1000 or EBE 2702 or technical elective. Hours must total a minimum of 4 semester hours. Technical electives may come from any college-level course not already prescribed that carries the following subject codes: MGT, HRM, LSC, MKT, ACC, CSD, CSE, GST, ITS, NTK, OAD, RTR, RCR.

## Office Administration - Medical Office Administration Major (453)

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.

**Learning Outcomes**

Upon completion of an Associate of Applied Business degree in Medical Office Administration, a graduate will be able to:

- Compose and produce quality business documents using technology.
- Perform office administrative functions using critical thinking, management, prioritizing, and organizational skills.
- Transcribe medical documents from dictation.
- Demonstrate good oral communication skills.
- Demonstrate good human relations skills, including customer service, teamwork, and ethics.

**Scholastic Preparation**

Students who have chosen Office Administration--Medical Office Administration--or Office Administration--Professional Office Administration--as their majors or who have chosen to complete the one-year Office Administration Certificate or any departmental certificate that requires OAD 101 (Document Production I) will receive a letter prior to the start of the quarter or semester in which they will be taking OAD 101 (Document Production I), explaining the typing speed entry requirement (prerequisite) for the class. The requirement specifies that all students enrolled in OAD 101 (Document Production I) must be able to keyboard at least 35 words per minute with three errors or fewer. On the first day of OAD 101 class, all students will be required to take a typing test called a timed writing to demonstrate whether they can type at the required speed. Students who do not pass the typing test will be asked to drop OAD 101 and take ITS 081, Beginning Keyboarding. Since OAD 101 is a five-credit-hour class and ITS 081 is a one-credit-hour



class, students who are required to take a certain number of credit hours per quarter will have to add one or more classes to make up the difference in credit hours. Students who complete the ITS 081 class with a grade of A may register for OAD 101 in the future. Students who have never used a computer must take ITS 080 (Computer Fundamentals) before registering for OAD 101. ITS 080 and ITS 081 will not count as credit toward the Office Administration - Medical Office Administration or Office Administration - Professional Office Administration degree, the one-year Office Administration Certificate, or any departmental certificate that requires OAD 101. Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

OAD 101	Document Production I	5
OAD 105	Business English	4
ITS 103	Information Technology Basics	3
MGT 105	Contemporary American Business	3
MTH 106	Business Mathematics	3

#### Winter (Quarters)

OAD 102	Document Production II	5
OAD 130	Advanced Grammar & Proofreading	4
ACC 111	Principles of Accounting I	4
ENG 111	English I	4
ITS 12P	Presentation Graphics	1
ITS 12S	Beginning Spreadsheet	1

#### Spring (Quarters)

OAD 135	Office Procedures	4
OAD 140	Records Management	3
MST 105	Medical Terminology	3
BIO 105	Fundamentals of Anatomy and Physiology	4
ITS 12D	Beginning Database	1
COM 121	Public Speaking I	3

#### Fall (Semesters)

OAD 2105	Medical Machine Transcription	3
OAD 2205	Medical Office Management	3
OAD 2301	CPT/ICD-10-PCS Coding	3
OAD 2302	ICD-9-CM/ICD-10- CM Coding	3
EBE 1000	Employability Skills (new curriculum item)	1
ENG 2211	Business Communication	3

### Spring (Semesters)

OAD 2703	Co-op Education/Internship	3
COM 1110	Interpersonal Communication I	or
COM 1170	Small Group Communication	3
MST 1140	Human Disease	3
SPN 1100	Survival Spanish	2
--	MGT or OAD	3
--	Social Science Elective	3
Total Credit Hours (Quarters)		55
Total Credit Hours (Semesters)		33

\* Any MGT or OAD course not already prescribed in the curriculum as long as prerequisites/corequisites are met

## Office Administration - Professional Office Administration Major (453)

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 have opportunities for promotion to management positions.

### Learning Outcomes

Upon completion of an Associate of Applied Business degree in Professional Office Administration, a graduate will be able to:

- Compose and produce quality business documents using technology.
- Perform office administrative functions using critical thinking, management, prioritizing, and organizational skills.
- Demonstrate good oral communication skills.
- Demonstrate good human relations skills, including customer service, teamwork and ethics.

## Scholastic Preparation

Students who have chosen Office Administration--Medical Office Administration--or Office Administration--Professional Office Administration--as their majors or who have chosen to complete the one-year Office Administration Certificate or any departmental certificate that requires OAD 101 (Document Production I) will receive a letter prior to the start of the quarter or semester in which they will be taking OAD 101 (Document Production I), explaining the typing speed entry requirement (prerequisite) for the class. The requirement specifies that all students enrolled in OAD 101 (Document Production I) must be able to keyboard at least 35 words per minute with three errors or fewer. On the first day of OAD 101 class, all students will be required to take a typing test called a timed writing to demonstrate whether they can type at the required speed. Students who do not pass the typing test will be asked to drop OAD 101 and take ITS 081, Beginning Keyboarding. Since OAD 101 is a five-credit-hour class and ITS 081 is a one-credit-hour class, students who are required to take a certain number of credit hours per quarter will have to add one or more classes to make up the difference in credit hours. Students who complete the ITS 081 class with a grade of A may register for OAD 101 in the future. Students who have never used a computer must take ITS 080 (Computer Fundamentals) before registering for OAD 101, ITS 080 and ITS 081 will not count as credit toward the Office Administration - Medical Office Administration or Office Administration - Professional Office Administration degree, the one-year Office Administration Certificate, or any departmental certificate that requires OAD 101.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

OAD 101	Document Production I	5
OAD 105	Business English	4
ITS 103	Information Technology Basics	3
MGT 105	Contemporary American Business	3
MTH 106	Business Mathematics	3

### Winter (Quarters)

OAD 102	Document Production II	5
OAD 130	Advanced Grammar & Proofreading	4
ACC 111	Principles of Accounting I	4
ENG 111	English I	4
ITS 12P	Presentation Graphics	1
ITS 12S	Beginning Spreadsheet	1

## Spring (Quarters)

OAD 135	Office Procedures	4
OAD 140	Records Management	3
COM 121	Public Speaking I	3
ENG 112	English II	4
ITS 12D	Beginning Database	1
SPN 100	Survival Spanish I	3

## Fall (Semesters)

OAD 2215	Office Simulation	3
EBE 1000	Employability Skills	1
ENG 2211	Business Communication	3
ITS 1236	Intermediate Spreadsheet	2
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management	3

## Spring (Semesters)

OAD 2703	Co-op Education/Internship	3
ITS 1246	Intermediate Database	2
ITS 1400	Web Design Essentials	2
COM 1110	Interpersonal Communication I	or
COM 1170	Small Group Communication	3
HRM 1725	Human Resource Management	3
MGT -	*	3
Total Credit Hours (Quarters)		55
Total Credit Hours (Semesters)		31

\*Any MGT course not already prescribed as long as prerequisites/corsequisites are met

## Paralegal (470)

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 Title	Credit Hours
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### Fall (Quarters)

ACC 111	Principles of Accounting I	4
ENG 111	English I	4
OAD 105	Business English	4
ITS 12P	Presentation Graphics	1
ITS 12W	Beginning Word Processing	1
ITS 12S	Beginning Spreadsheet	1

## Fall or Winter (Quarters)

--	Career elective**	2
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## Winter (Quarters)

ACC 112	Principles of Accounting II	4
ENG 112	English II	4
MTH 106	Business Mathematics	or
MTH 121	College Algebra I	3
OAD 130	Advanced Grammar & Proofreading	4

## Winter or Spring (Quarters)

--	Humanities elective*	3
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## Spring (Quarters)

ECO 221	Principles of Macroeconomics	3
COM 111	Interpersonal Communication	3
PLS 110	American National Government	3
PSY 111	Psychology I	or
SOC 110	Sociology	3
Total Credit Hours (Quarters)		47

\* Select one of the following: ART 130, ENG 250, HST 121, MUS 130, PHL 210, THE 130

\*\*Select one of the following: ACC 113, ACC 221, ACC 205, ECO 222, MST 105, PLS 220, RES 240, RES 245

# Professional Services Management (900)

The Associate of Technical Studies in Professional Services Management offers individuals who hold licensure in professional areas such as cosmetology, various building trades, auto services, or other areas to receive up to 12 credit hours toward an Associate of Technical Studies degree with a focus in the management of the business operation related to the professional area. Students coming from high school career programs or trade school programs that result in licensure as well as long-term professionals will be interested in this degree option. Students will receive college credit for their professional knowledge while pursuing an education that will provide them the tools with which to successfully launch and manage their own business.

Interested students should contact the Dean of Business and Applied Technologies early on to determine the number of credits that will be applied toward their degree based upon the licensure held. Students will need to provide proof of current licensure. In addition, students are responsible for providing any information related to their licensure that is needed by the dean in order to determine the number of credits to be awarded. Once the credit hours applied to the licensure are determined, the student will work with the Dean of Business and Applied Technologies who will approve any additional coursework in the professional area.

The program schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Many students, 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.

## Degree Availability

The Professional Services ATS degree is available during the day and in the evening.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives can be found in the College Catalog.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

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 (Quarters)

MGT 112	Principles of Management	4
ACC 112	Principles of Accounting II	4
ENG 112	English II	4
ITS 125	Beginning Spreadsheet	1
MKT 200	Principles of Marketing	4

### Spring (Quarters)

ACC 113	Principles of Accounting III	4
ENG 221	Business Communication	3
HRM 225	Human Resource Management	3
ITS 12D	Beginning Database	1
MTH 106	Business Mathematics	3

### Fall (Semesters)

MGT 1115	Customer Relations	2
MGT 2270	Business Finance	3
PSY 1111	Introduction to Psychology	3
--	Humanities/Social Science Elective (GA)***	3
--	Professional Electives**	6

### Spring (Semesters)

COM 121	Public Speaking I	3
ECO 2220	Principles of Microeconomics	3
MGT 2140	Small Business Management	3
MGT 2600	Legal Environment of Business	3
--	Professional Electives**	6

Total Credit Hours (Quarters)	49
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Total Credit Hours (Semesters)	35
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\*\*\*A total of 12 semester hours must be earned from the professional area. The 12 hours can be earned from professional licensure. Any of the 12 hours not granted for the licensure may come from a field related to the licensure or business courses approved by the division. See the Dean of Business and Applied Technologies to have your professional license evaluated for the number of credit hours that will apply and for approval of any licensure- and business-related courses.

# Business Certificates

## Accounting Certificate (415)

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 12K, Keyboarding/Word Processing.

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. Students should consult their academic advisors for help in planning their schedules. This certificate is also available as a weekend college offering at the Greene Center Campus.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

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 (Quarters)

ACC 112	Principles of Accounting II	4
COM 121	Public Speaking I	3
ENG 112	English II **	or
ENG 135	Business Report Writing **	4
ITS 125	Beginning Spreadsheet	1
MTH 106	Business Mathematics	3

### Spring (Quarters)

ACC 113	Principles of Accounting III	4
ACC 120	Microcomputer Accounting Systems	4
ACC 205	Spreadsheet Accounting	4
ENG 221	Business Communication	3
MGT 260	Legal Environment of Business	3
Total Credit Hours (Quarters)		51

\* Any accounting course not already prescribed.

\*\* ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.

## Advanced Medical Coding Departmental Certificate (425)

This certificate will provide the student with experience using ICD-9-CM and CPT coding resources available in print, online, etc. It will also give the student background, current, and related information necessary for success as a medical coder. Upon completion of this certificate, the student will have the option to attend nationally sponsored review sessions and then sit for the national medical coding certification exam administered by a number of medical coding associations. A fee is charged for participation in the review sessions and/or for taking the exam. The total cost to the participant will vary depending upon the association administering the review sessions and the exam; the testing site location; and the number of review sessions chosen, if any, as review sessions are optional. This certificate is also available as a weekend college offering at the Greene Center Campus.

Course #	Course Title	Credit Hours
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### Summer (Quarters)

BIO 105	Fundamentals of Anatomy and Physiology	4
MST 105	Medical Terminology	3

### Fall (Quarters)

OAD 272	ICD-9-CM Coding	5
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### Winter (Quarters)

OAD 270	CPT-Coding	5
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### Spring (Quarters)

OAD 275	Medical Coding Trends and Issues	4
OAD 276	Advanced Medical Coding	5

### Summer (Quarters)

LPN 125	Introduction to Disease Processes	4
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Total Credit Hours (Quarters)		30
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## Communication Departmental Certificate (425)

This certificate will provide the student with extensive background in and knowledge of effective communication skills necessary in today's work environment, including writing, oral, and listening skills. The ability to communicate effectively is listed among the top five qualifications that employers require and is often ranked as the number one required skill. In today's information-based world, excellent communication skills are vital to success; and this certificate will provide students the opportunity to gain invaluable knowledge of and practice using effective communication skills and/or to improve the communication skills they already possess.

Course #	Course Title	Credit Hours
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### Summer (Quarters)

ENG 111	English I	4
COM 121	Public Speaking I	3

### Fall (Quarters)

OAD 105	Business English	4
COM 221	Public Speaking II	3
ENG 112	English II	4

### Winter (Quarters)

COM 111	Interpersonal Communication	3
COM 170	Small Group Communication	4
ENG 221	Business Communication	3

Total Credit Hours (Quarters)		28
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## Customer Service Departmental Certificate (435)

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 #	Course Title	Credit Hours
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MGT 105	Contemporary American Business	3
MGT 106	Organizational Behavior	4
MGT 112	Principles of Management	4
MGT 115	Customer Relations	3
MGT 202	Quality Management	4
MKT 200	Principles of Marketing	4
MKT 245	Sales and Sales Management	3
ITS 103	Information Technology Basics	3
PSY 111	Psychology I	3

Total Credit Hours (Quarters)		31
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## Human Resource Management Departmental Certificate (435)

This certificate is focused on developing the essential knowledge and skills needed by an individual who wants to work in the human resource field. Because of prerequisite requirements, it will generally take more than one academic year to complete. All courses can be applied to the Human Resource Management Option of the Associate Degree in Management.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

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 (Quarters)

MGT 112	Principles of Management	4
MGT 260	Legal Environment of Business	3
ENG 112	English II	4
ITS 12P	Presentation Graphics	1

### Spring (Quarters)

MGT 106	Organizational Behavior	4
MGT 202	Quality Management	4
HRM 225	Human Resource Management	3
ENG 221	Business Communication	3

### Fall (Semesters)

HRM 2300	Training and Development	3
HRM 2350	Employment Law	3

### Spring (Semesters)

MGT 2650	Negotiation Skills	3
HRM 2400	Staffing	3
HRM 2450	Compensation and Benefits	3

Total Credit Hours (Quarters)		43
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Total Credit Hours (Semesters)		15
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## Logistics and Supply Chain Management Departmental Certificate (435)

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. Because of prerequisite requirements, it will generally take more than one academic year to complete. All courses can be applied to the Associate degree in Logistics and Supply Chain Management.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

ACC 111	Principles of Accounting I	4
ENG 111	English I	4
ITS 103	Information Technology Basics	3
MTH 106	Business Mathematics	3

**Winter (Quarters)**

MGT 112	Principles of Management	4
MGT 260	Legal Environment of Business	3
ENG 112	English II	4
LSC 210	Purchasing and Supply Management	4

**Spring (Quarters)**

MGT 106	Organizational Behavior	4
ITS 12D	Beginning Database	1
ITS 12P	Presentation Graphics	1
ITS 12S	Beginning Spreadsheet	1

**Fall (Semesters)**

MGT 2020	Quality Management	3
LSC 2220	Logistics and Physical Distribution	3

**Spring (Semesters)**

MGT 2650	Negotiation Skills	3
LSC 2270	Operations Management	3
Total Credit Hours (Quarters)		36
Total Credit Hours (Semesters)		12

**Management Certificate (438)**

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 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. This certificate is also available as a weekend college offering at the Greene Center Campus.

**Course # Course Title Credit Hours****Fall (Quarters)**

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 (Quarters)**

MGT 106	Organizational Behavior	4
MGT 112	Principles of Management	4
ACC 112	Principles of Accounting II	4
ENG 135	Business Report Writing ***	or
ENG 112	English II ***	4
ITS 12S	Beginning Spreadsheet	1
ITS 12P	Presentation Graphics	1

**Spring (Quarters)**

MGT 202	Quality Management	4
ACC 113	Principles of Accounting III	4
COM 121	Public Speaking I	3
ENG 221	Business Communication	3
ITS 12D	Beginning Database	1
--	Technical Elective **	3
Total Credit Hours (Quarters)		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 12K, 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, 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.

**Marketing & E-Business Departmental Certificate (435)**

This certificate is focused on developing the essential knowledge and skills needed by an individual who wants to work in the marketing field. Because of prerequisite requirements, it will generally take more than one academic year to complete. All courses can be applied to the Associate degree in Marketing and E-Business.

**Course # Course Title Credit Hours****Fall (Quarters)**

MGT 105	Contemporary American Business	3
ACC 111	Principles of Accounting I	4
ITS 103	Information Technology Basics	3
MTH 106	Business Mathematics	3

**Winter (Quarters)**

MGT 112	Principles of Management	4
MKT 200	Principles of Marketing	4

**Spring (Quarters)**

MGT 202	Quality Management	4
ITS 12D	Beginning Database	1
ITS 12S	Beginning Spreadsheet	1

**Fall (Semesters)**

MKT 2100	Pricing Strategies	3
MKT 2150	Product Management	3
MKT 2400	Electronic Business Applications	3
LSC 2220	Logistics and Physical Distribution	3

**Spring (Semesters)**

MKT 2550	Promotion & IMC Strategies	3
STT 2640	Elementary Statistics I	3
Total Credit Hours (Quarters)		27
Total Credit Hours (Semesters)		18

## Medical Coding Departmental Certificate

This certificate will provide the student with an introduction to the fundamentals of coding. This certificate is also available as a weekend college offering at the Greene Center Campus.

Course #	Course Title	Credit Hours
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### Summer (Quarters)

BIO 105	Fundamentals of Anatomy and Physiology	4
MST 105	Medical Terminology	3

### Fall (Quarters)

OAD 272	ICD-9-CM Coding	5
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### Winter (Quarters)

OAD 270	CPT-Coding	5
Total Credit Hours (Quarters)		17

## Medical Transcription Departmental Certificate (452)

This certificate will provide the student with the word processing skills, medical terminology, anatomy background, and transcription skills necessary to transcribe medical documents accurately and effectively using appropriate punctuation, terminology, spelling, and formatting. Students will gain experience transcribing dictation of varying difficulty and length spoken by physicians from diverse ethnic backgrounds. This certificate will be beneficial to those students pursuing a career in medical transcription who are currently working in a medical environment or who desire to work in such an environment. The skills acquired will allow students the opportunity to apply for entry-level transcriptionist positions in a variety of medical settings.

Course #	Course Title	Credit Hours
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### Summer (Quarters)

BIO 105	Fundamentals of Anatomy and Physiology	4
MST 105	Medical Terminology	3

### Fall (Quarters)

OAD 101	Document Production I	5
OAD 248	Basic Medical Machine Transcription *	4

### Winter (Quarters)

OAD 249	Advanced Medical Machine Transcription	4
Total Credit Hours (Quarters)		20

\* A student can take 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 081, ITS 12K, or ITS 12W. Please see the Dean of Business and Applied Technologies for a waiver. A Medical Transcription Certificate student with strong grammar skills can also ask the dean to waive OAD 105 and OAD 130 as prerequisites for OAD 248.

## Professional Office Administration Certificate (457)

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 fast-paced 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 program. This certificate can be earned through a combination of evening and online courses.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

OAD 101	Document Production I	5
OAD 105	Business English	4
ITS 103	Information Technology Basics	3
MGT 105	Contemporary American Business	3
MTH 106	Business Mathematics	3

### Winter (Quarters)

OAD 102	Document Production II	5
OAD 130	Advanced Grammar & Proofreading	4
ACC 111	Principles of Accounting I	4
ENG 111	English I	4
ITS 12P	Presentation Graphics	1
ITS 12S	Beginning Spreadsheet	1

### Spring (Quarters)

OAD 135	Office Procedures	4
OAD 140	Records Management	3
ENG 112	English II	4
ITS 12D	Beginning Database	1
SPN 100	Survival Spanish I	3
COM 121	Public Speaking I	3

Total Credit Hours (Quarters)		55
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## Small Business Departmental Certificate (435)

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 #	Course Title	Credit Hours
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### Fall (Quarters)

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

# Computer and IT

## Computer Networking (474)

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 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. Information Technology is one of the fastest-growing career fields today. The Computer Networking curriculum prepares students to plan, design, implement, troubleshoot and administer microcomputer-based networks. This curriculum can assist students in preparing for the following certifications: CompTIA (A+, Network+, Linux+, Security+); Microsoft Certified Technology Specialist, and Cisco Certified Network Associate.

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 or the Office of Career Management for more information.

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. Students should consult their academic advisors for help in planning their schedules.

### Learning Outcomes

Upon completion of an Associate of Applied Business degree in Computer Networking, a graduate will be able to do the following:

- Demonstrate knowledge of computer and network systems, terms and concepts.
- Setup, install, configure, and troubleshoot hardware/software for desktop computer systems.
- Install, configure, manage, maintain, and troubleshoot server computer systems.
- Install, configure, manage, and maintain network-based voice, audio and video technologies.
- Install, configure, manage, and maintain network infrastructure equipment and software.
- Demonstrate knowledge of computer and network security terms and concepts.

### Winter (Quarters)

MGT 112	Principles of Management	4
ACC 112	Principles of Accounting II	4
ENG 112	English II	4
MKT 200	Principles of Marketing	4

### Spring (Quarters)

MGT 106	Organizational Behavior	4
MGT 202	Quality Management	4
MGT 250	Leadership in Organizations	4

### Fall (Semesters)

MKT 2400	Electronic Business Applications	3
MKT 2450	Sales and Sales Management	3

### Spring (Semesters)

MGT 2140	Small Business Management	3
MGT 2600	Legal Environment of Business	3
Total Credit Hours (Quarters)		42
Total Credit Hours (Semesters)		12

This certificate is laid out beginning in quarter format. Considering pre-requisites this certificate may include additional semester courses.

## Supervisory Departmental Certificate (435)

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 #	Course Title	Credit 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 (Quarters)		32



## 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 12K, Keyboarding/Word Processing.

## Degree Availability

This program is available during the day and evening. Contact your academic advisor about an evening curriculum guide.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

### Course # Course Title Credit Hours

#### Fall (Quarters)

NTK 176	PC/Network Essentials I	6
CSE 150	Introduction to CyberSecurity	4
ENG 111	English I	4
MGT 105	Contemporary American Business	3

#### Winter (Quarters)

NTK 178	PC/Network Essentials II	6
CSE 152	CyberSecurity - Security+	4
ENG 112	English II *	or
ENG 135	Business Report Writing *	4
ITS 12S	Beginning Spreadsheet	1

#### Spring (Quarters)

NTK 231	Convergence Technology I	4
COM 121	Public Speaking I	3
ENG 221	Business Communication	3
--	MGT/MKT/ACC/Co-op Elective**	3
--	Humanities/Social Science Elective	3

#### Fall (Semesters)

NTK 2100	Cisco - Network Fundamentals	3
NTK 2110	Cisco - Routing Fundamentals	3
NTK 2220	Microsoft Desktop Administration	3
NTK 2222	Administering Microsoft Server	3
MGT 2000	Introduction to Project Management	3
MTH 1060	Business Mathematics	3

## Spring (Semesters)

NTK 2120	Cisco - Switching/Wireless	3
NTK 2130	Cisco - Wide Area Networking	3
NTK 2210	Linux Desktop Administration	3
NTK 2212	Linux Server Administration	3
NTK 2890	Computer Networking Capstone	3
--	Humanities/Social Science Elective	3
Total Credit Hours (Quarters)		48

Total Credit Hours (Semesters) 36

\*ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.\*\*Any MGT, MKT ACC or co-op course not already prescribed equaling 3 or more credit hours.

## Computer Networking - Technical Systems Support Option (472)

Information Technology is one of the fastest-growing career fields today. The Technical Systems Support curriculum prepares students to support computer and network end users. This curriculum can assist students in preparing for the following certifications: CompTIA (A+, Network+, Linux+, Security+, Project+); Microsoft Certified Technical Specialist and Cisco Certified Network Associate.

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 Office of Career Management for more information.

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. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an Associate of Applied Business degree in Technical Systems Support, a graduate will be able to do the following:

- Demonstrate knowledge of computer and network systems, terms, and concepts.
- Setup, install, configure, and troubleshoot hardware/software for desktop computer systems.
- Install, configure, manage, maintain, and troubleshoot server computer systems.
- Install, configure, manage, and maintain network-based voice, audio and video technologies.
- Use and troubleshoot basic application software.
- Demonstrate knowledge of computer and network security terms and concepts.

## Scholastic Preparation

Technical Systems Support 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 12K, Keyboarding/Word Processing.

## Degree Availability

This program is available during the day and evening. Contact your academic advisor about an evening curriculum guide.

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

### Course # Course Title Credit Hours

#### Fall (Quarters)

NTK 176	PC/Network Essentials I	6
CSE 150	Introduction to CyberSecurity	4
ENG 111	English I	4
MGT 105	Contemporary American Business	3

#### Winter (Quarters)

NTK 178	PC/Network Essentials II	6
CSE 152	CyberSecurity - Security+	4
ENG 112	English II *	or
ENG 135	Business Report Writing *	4
ITS 12S	Beginning Spreadsheet	1

#### Spring (Quarters)

NTK 231	Convergence Technology I	4
COM 121	Public Speaking I	3
ENG 221	Business Communication	3
--	MGT/MKT/ACC/Co-op Elective **	3
--	Humanities/Social Science Elective	3

#### Fall (Semesters)

NTK 2100	Cisco - Network Fundamentals	3
NTK 2220	Microsoft Desktop Administration	3
NTK 2222	Administering Microsoft Server	3
MGT 2000	Introduction to Project Management	3
MTH 1060	Business Mathematics	3
ITS -	ITS Electives***	3

## Spring (Semesters)

NTK 2210	Linux Desktop Administration	3
NTK 2212	Linux Server Administration	3
NTK 2890	Computer Networking Capstone	3
ITS -	ITS Electives***	3
--	ITS/Co-op Electives***	3
--	Humanities/Social Science Elective	3
Total Credit Hours (Quarters)		48

Total Credit Hours (Semesters) 36

\*ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.\*\*Any MGT, MKT or ACC course not already prescribed equaling 3 or more quarter credit hours.\*\*\*ITS courses must total a minimum of 9 semester hours. They may not include ITS 0810, ITS 1100, ITS 1201, or their quarter-course equivalents.

## Computer Software Development (433)

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 work 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 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 of Applied Business degree in Computer Software Development, a graduate will be able to do the following:

- analyze information system requirements and design appropriate software solutions.
- write computer programs to implement information systems designs.
- develop database systems to meet business data requirements.
- design and create websites.
- find and correct errors in the design and implementation of software solutions.

## Scholastic Preparation

Computer Software Development students need a high school algebra background equivalent to CPE 102 Introductory Algebra II. 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 081, Beginning Keyboarding.

## Degree Availability

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

## Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

### Course # Course Title Credit Hours

#### Fall (Quarters)

CSD 101	CSD Program Orientation	1
ENG 111	English I	4
ITS 12A	Windows Concepts	2
ITS 12D	Beginning Database	1
ITS 12S	Beginning Spreadsheet	1
ITS 230	Introduction to Web Design	3
MGT 106	Organizational Behavior	4

#### Winter (Quarters)

ENG 112	English II *	or
ENG 135	Business Report Writing *	4
ITS 109	Introduction to SQL	3

ITS 115	HTML and XHTML	4
MTH 106	Business Mathematics	3
--	Humanities or Social Science Elective (GA)	3

#### Spring (Quarters)

CSD 104	Programming Fundamentals	5
CSD 130	Database Management Systems	3
EBE 100	Employability Skills	2
ECO 221	Principles of Macroeconomics	3
ENG 221	Business Communication	3

#### Fall (Semesters)

CSD 2200	JavaScript	3
CSD 2520	Java Programming	4
ITS 1310	Introduction to Computers and Networks	2
ITS 2500	XML	3
MGT 1115	Customer Relations	2
MGT 2000	Introduction to Project Management	3

#### Spring (Semesters)

CSD 2100	Systems Analysis and Design	3
CSD 2540	C Programming	4
CSD 2800	Advanced Topics	3
--	Technical Elective or Co-op	2
--	General Education Elective	3

Total Credit Hours (Quarters) 49

Total Credit Hours (Semesters) 32

\* ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.

# CyberSecurity/Information Assurance Technology (479)

Information Technology is one of the fastest-growing career fields today. The CyberSecurity/Information Assurance curriculum prepares students to support the information security needs of businesses. This curriculum can assist students in preparing for the following certifications: CompTIA (A+, Network+, Linux+, Security+, Project+), CISSP. CyberSecurity/Information Assurance 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 Office of Career Management for more information.

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. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of an Associate of Applied Business degree in CyberSecurity/Information Assurance, a graduate will be able to:

- Demonstrate knowledge of computer and network systems terms and concepts.
- Setup, install, configure and troubleshoot hardware/software for desktop computer systems.
- Install, configure, manage, maintain, and troubleshoot server computer systems.
- Install, configure, manage, and maintain network-based voice, audio and video technologies.
- Install, configure, manage and maintain network infrastructure equipment and software.
- Implement, configure and troubleshoot network security software.
- Implement, configure and troubleshoot network security equipment.
- Design secure computer and network infrastructures.

## Scholastic Preparation

Students should possess mathematical skills and should be comfortable using technology. Students who do not possess basic computer and technology skills should take one or more of the following courses to improve their skill level in basic technology use: ITS 080, ITS 081, ITS 12K, ITS 103. Students who have not completed a full sequence of high school mathematics may need to complete a series of college preparatory math classes.

## Transfer Options

Students enrolled in applied associate degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges and universities have designed baccalaureate completion programs for students completing applied degrees. See the Transfer section of the catalog for more information.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

CSE 150	Introduction to CyberSecurity	4
ENG 111	English I	4
MGT 105	Contemporary American Business	3
NTK 176	PC/Network Essentials I	6

### Winter (Quarters)

CSE 152	CyberSecurity - Security+	4
ENG 112	English II ****	or
ENG 135	Business Report Writing ****	4
ITS 125	Beginning Spreadsheet	1
NTK 178	PC/Network Essentials II	6

### Spring (Quarters)

COM 121	Public Speaking I	3
ENG 221	Business Communication	3
--	MGT/MKT/ACC/Coop Elective***	3
NTK 231	Convergence Technology I	4
--	Social Science Elective	3

### Fall (Semesters)

CSE 2251	CyberSecurity - Security Professional I	3
CSE 2252	CyberSecurity - Security Professional II	3
MGT 2000	Introduction to Project Management	3
MTH 1060	Business Mathematics	3
NTK 2100	Cisco - Network Fundamentals	3
NTK 2110	Cisco - Routing Fundamentals	3

### Spring (Semesters)

NTK 2120	Cisco - Switching/Wireless	3
NTK 2130	Cisco - Wide Area Networking	3
NTK 2890	Computer Networking Capstone	3
--	NTK/CSD/EBE Elective	3
--	NTK/CSD/EBE Elective	3
--	Humanities/Social Science Elective	3

Total Credit Hours (Quarters)	48
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Total Credit Hours (Semesters)	36
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\*Any MGT, MKT or ACC course not already prescribed equaling 3 or more credit hours. \*\*NTK/CSE/CSD/ITS elective credits must total a minimum of 4 hours. ITS courses may not include ITS 080, ITS 081, ITS 12K, ITS 102, ITS 103. ATI courses and EBE 100, EBE 282, EBE 283, EBE 284, EBE 292, EBE 293 and EBE 294 can be applied to these technical elective hours. \*\*\*ENG 135, Business Report Writing, will not necessarily transfer as the equivalent of ENG 112, English II.

# Information Services Library Paraprofessional (477)

Belmont Technical College (BTC) and Clark State Community College (CSCC), agree to cooperate in correlating their respective programs for the purpose of providing the Associate of Applied Science Degree in Information Technology: Information Services, Library Paraprofessional. This formal arrangement permits CSCC students to benefit in order to pursue library paraprofessional training from BTC.

In an information-driven age, there is a definite need for trained professional information specialists and librarians who possess advanced technological skills. This degree provides an array of skill sets that are applicable to many career fields, not just librarians. BTC offers this part-time, totally online accredited degree program to support the technological, communication and information needs of businesses and organizations.

This specialty is intended for those already employed in libraries and other information technology organizations, as well as for those who would like a career in the information field. The program is designed to accommodate part-time and distance education students. It utilizes the Internet and off-campus sites (through partnerships with other institutions) as its delivery medium. The rapid growth in computer technology and electronic information sources, especially World Wide Web resources, requires libraries to employ individuals who can professionally assist a variety of people in defining, finding, evaluating and using information; prepare and maintain information resources using a variety of software, hardware and network tools; and utilize technical skills to maintain hardware, software and networks. Graduates of the Library Paraprofessional Specialty may become employed in a variety of library settings including public libraries; school library media centers; college and university libraries; corporate, medical and other special libraries and information centers; and other library-related businesses. Additionally, employment opportunities exist in many organizations and businesses in such diverse areas as help desk support, web page editor, computer maintenance technician and information research.

For more information, visit [www.btc.edu](http://www.btc.edu).

## Course # Course Title Credit Hours

### Fall (Quarters)

ENG 111	English I	4
ITS 103	Information Technology Basics	3
--	INF 100 Intro to Learning Literacy or FYE 120 Success in Online Learning (take from Belmont)	1
--	INF 204 Customer, Public and Information Services (take from Belmont)	4
--	Social Science Elective	3

### Winter (Quarters)

ENG 112	English II	4
ITS 115	HTML and XHTML	3
--	INF 203 Information Structure and Sources (take from Belmont)	3
--	INF 220 - 260 Select 1 Special Topics Course (take from Belmont)	1
--	General Education Elective	3

### Spring (Quarters)

--	LIB 103 Library Operations and Issues (take from Belmont)	4
--	INF 102 Copyright (take from Belmont)	1
--	INF 220 - 260 Select 1 Special Topics Course (take from Belmont)	2
--	ITS Elective	3
--	Literature Elective	3

### Fall (Semesters)

COM 1110	Interpersonal Communication I	3
--	LIS 2103 Technology in Libraries (take from Belmont)	3
--	Library Elective (take from Belmont)	5
--	Math Elective	3
--	ITS Elective	3

### Spring (Semesters)

--	LIS 2280 Information Services Seminar (take from Belmont)	1
--	LIS 2282 Information Services Capstone (take from Belmont)	2
--	Library Elective (take from Belmont)	3
--	General Education Electives	6
--	Natural and Physical Science Elective	3

Total Credit Hours (Quarters) 42

Total Credit Hours (Semesters) 32

# Computer and IT Certificates

## CyberSecurity Departmental 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 #	Course Title	Credit Hours
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### Fall (Quarters)

CSE 150	Introduction to CyberSecurity	4
NTK 176	PC/Network Essentials I	6

### Winter (Quarters)

CSE 152	CyberSecurity - Security+	4
NTK 178	PC/Network Essentials II	6

### Spring (Quarters)

NTK 231	Convergence Technology I	4
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### Fall (Semesters)

CSE 2252	CyberSecurity - Security Professional II	3
CSE 2251	CyberSecurity - Security Professional I	3

### Spring (Semesters)

--	NTK/CSD/EBE Electives	3
--	NTK/CSD/EBE Electives	3

Total Credit Hours (Quarters) 24

Total Credit Hours (Semesters) 12

## Computer Programming Departmental Certificate (433)

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 #	Course Title	Credit Hours
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### Fall (Quarters)

ITS 12D	Beginning Database	1
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### Winter (Quarters)

ITS 109	Introduction to SQL	3
ITS 115	HTML and XHTML	4

### Spring (Quarters)

CSD 104	Programming Fundamentals	5
CSD 130	Database Management Systems	3

### Fall (Semesters)

CSD 2520	Java Programming	4
ITS 2500	XML	3

### Spring (Semesters)

CSD 2100	Systems Analysis and Design	3
CSD 2540	C Programming	4

Total Credit Hours (Quarters) 16

Total Credit Hours (Semesters) 14

## Network Administration Departmental Certificate (464)

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 #	Course Title	Credit Hours
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### Fall (Quarters)

NTK 176	PC/Network Essentials I	6
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### Winter (Quarters)

NTK 178	PC/Network Essentials II	6
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### Spring (Quarters)

NTK 231	Convergence Technology I	4
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### Fall (Semesters)

NTK 2220	Microsoft Desktop Administration	3
NTK 2222	Administering Microsoft Server	3

### Spring (Semesters)

NTK 2210	Linux Desktop Administration	3
NTK 2212	Linux Server Administration	3

Total Credit Hours (Quarters) 16

Total Credit Hours (Semesters) 12

## Network Infrastructure Departmental Certificate (464)

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

Course #	Course Title	Credit Hours
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### Fall (Quarters)

NTK 176	PC/Network Essentials I	6
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### Winter (Quarters)

NTK 178	PC/Network Essentials II	6
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### Spring (Quarters)

NTK 231	Convergence Technology I	4
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### Fall (Semesters)

NTK 2100	Cisco - Network Fundamentals	3
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NTK 2110	Cisco - Routing Fundamentals	3
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### Spring (Semesters)

NTK 2120	Cisco - Switching/Wireless	3
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NTK 2130	Cisco - Wide Area Networking	3
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Total Credit Hours (Quarters)		16
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Total Credit Hours (Semesters)		12
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## Technical Support Departmental Certificate (464)

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

Course #	Course Title	Credit Hours
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### Fall (Quarters)

NTK 176	PC/Network Essentials I	6
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ITS 12A	Windows Concepts	2
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ITS 12D	Beginning Database	1
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ITS 12S	Beginning Spreadsheet	1
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ITS 12W	Beginning Word Processing	1
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### Winter (Quarters)

NTK 178	PC/Network Essentials II	6
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ITS 14D	Intermediate Database	2
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ITS 14S	Intermediate Spreadsheet	2
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ITS 14W	Intermediate Word Processing	2
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### Spring (Quarters)

NTK 231	Convergence Technology I	4
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ITS -	ITS Elective(s)*	7
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Total Credit Hours (Quarters)		34
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## Web Development Departmental Certificate (433)

The focus of this certificate is to provide the knowledge and skills necessary to develop web applications and e-business systems.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

ITS 12D	Beginning Database	1
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ITS 230	Introduction to Web Design	3
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### Winter (Quarters)

ITS 109	Introduction to SQL	3
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ITS 115	HTML and XHTML	4
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### Spring (Quarters)

CSD 104	Programming Fundamentals	5
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CSD 130	Database Management Systems	3
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### Fall (Semesters)

CSD 2200	JavaScript	3
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CSD 2520	Java Programming	4
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ITS 2500	XML	3
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Total Credit Hours (Quarters)		19
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Total Credit Hours (Semesters)		10
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# Court Reporting / Captioning

## Judicial Court Reporting (443)

Judicial court reporters record the verbatim proceedings of a courtroom, deposition, hearing, arbitration or meeting and provide an accurate transcript of the proceedings.

An Associate degree in Judicial Court Reporting can be earned completely online or in a traditional classroom setting in Springfield or at Clark State's Cincinnati location in Sharonville.

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 computer-integrated courtroom (CIC). All Realtime Court Reporting students are required to purchase a computerized writer, laptop computer and CaseCATalyst student version software. Students should consult with their academic advisor to receive the required Investment Certificate before purchasing the computerized writer and software.

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. 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 Court 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 of Applied Business 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.
- 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, preparing a 40 - page complete, accurate transcript and summarizing the experience in a written narrative.

### 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 preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 12K, Keyboarding/Word Processing.

Entering students must be high school graduates or possess a certificate of general education (GED).

### Graduation Requirements

The Judicial Reporting program is accredited 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 and prepare a 40-page complete, accurate transcript from internship experience.
- The student shall prepare a five-page, first-pass transcript with 96 percent accuracy.

Clark State Community College reserves the right to change these standards when determined educationally expedient.

### Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

RTR 105	Realtime Theory	7
RTR 110	Survey of Realtime Reporting	1
RTR 113	Realtime Writing I	1
RTR 125	Vocabulary/Reference Use	2
ITS 103	Information Technology Basics	3
OAD 105	Business English	4



## Winter (Quarters)

RTR 114	Realtime Writing II	1
RTR 131	Beginning Computer Assisted Transcription	3
RTR 143	Speed Building I	4
RTR 170	Transcription	2
ENG 111	English I	4
ENG 221	Business Communication	3

## Spring (Quarters)

RTR 115	Realtime Writing III	1
RTR 120	Law and Legal Terminology	2
RTR 144	Speed Building II	5
RTR 170	Transcription	2
ENG 112	English II	4
--	Humanities/Social Science Elective (GA)	3

## Summer (Quarters)

RTR 116	Realtime Writing IV	1
RTR 145	Speed Building III	5
RTR 170	Transcription	2
MST 105	Medical Terminology	3
--	Humanities/Social Science Elective	3

## Fall (Semesters)

RCR 1250	Transcription	2
RCR 2032	Advanced CAT Concepts	2
RCR 2045	Judicial Reporting Techniques	2
RCR 2201	Advanced Speed Building	3
RCR 2211	Advanced Realtime Writing	1
MTH 1060	Business Mathematics	3

## Spring (Semesters)

RCR 1250	Transcription	2
RCR 2050	Transcript Production	2
RCR 2080	Court Reporting Professional Experience	1
RCR 2202	Terminal Speed Building	3
RCR 2212	Terminal Realtime Writing	1
--	Humanities/Social Science Elective	3
	Total Credit Hours (Quarters)	66
	Total Credit Hours (Semesters)	25

\* RTR 175 and RCR 1255 are optional skill building courses that students may elect to take to increase skill growth.

## Judicial Court Reporting - Broadcast Captioning/CART Option (444)

Broadcast captioners capture the spoken word on live television programs 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 office of a captioning company or from a broadcast studio that is set up in his/her home.

An Associate degree in Broadcast Captioning/CART can be earned completely online or in a traditional classroom setting in Springfield or Clark State's Cincinnati location in Sharonville.

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 Court Reporting students are required to purchase a computerized writer, laptop computer and CaseCATalyst student version software. Students should consult with their academic advisor to receive the required Investment Certificate before purchasing the computerized writer and software.

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 Court Reporting as their career goal. All Realtime Court Reporting students may also elect to follow both tracks, graduating with a degree in both options.

## Learning Outcomes

Upon completion of an Associate of Applied Business 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 12K, Keyboarding/Word Processing.

Entering students must be high school graduates or possess a certificate of general education (GED).

## Graduation Requirements

The Broadcast Captioning/CART Option program is approved by the National Court Reporters Association. This association's requirements are met or exceeded with the following standards:

- Prepare an acceptable realtime translation of two 30-minute segments of CART services.
- Submit unedited captioned translations of three 15-minute programs on varied topics.
- Complete 40 hours of actual writing time in the CART environment with a minimum of 15 hours of research and dictionary preparation.

- Complete 40 hours of actual writing time in the captioning environment with a minimum of 15 hours of research and dictionary preparation.
- Pass three five-minute tests with 96 percent accuracy at 180 wpm literary.
- Pass three five-minute tests with 95 percent accuracy at 200 wpm jury charge.
- Pass three five-minute tests with 95 percent accuracy at 225 wpm testimony (two-voice).
- Produce a five-page, first-pass transcript with at least 96 percent accuracy.

Clark State Community College reserves the right to change these standards when determined educationally appropriate.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the College Catalog.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

RTR 105	Realtime Theory	7
RTR 110	Survey of Realtime Reporting	1
RTR 113	Realtime Writing I	1
RTR 125	Vocabulary/Reference Use	2
ITS 103	Information Technology Basics	3
OAD 105	Business English	4

### Winter (Quarters)

RTR 114	Realtime Writing II	1
RTR 131	Beginning Computer Assisted Transcription	3
RTR 143	Speed Building I	4
RTR 170	Transcription	2
ENG 111	English I	4
ENG 221	Business Communication	3

### Spring (Quarters)

RTR 115	Realtime Writing III	1
RTR 120	Law and Legal Terminology	2
RTR 144	Speed Building II	5
RTR 170	Transcription	2
ENG 112	English II	4
- -	Humanities Elective (GA)	3

### Summer (Quarters)

RTR 116	Realtime Writing IV	1
RTR 145	Speed Building III	5
RTR 170	Transcription	2
MST 105	Medical Terminology	3
MTH 106	Business Mathematics	3

## Fall (Semesters)

RCR 1250	Transcription	2
RCR 2100	Introduction to the Deaf Community	2
RCR 2101	Captioning /CART I	2
RCR 2145	Captioning/CART Business Practices	2
RCR 2201	Advanced Speed Building	3
RCR 2211	Advanced Realtime Writing	1

## Spring (Semesters)

RCR 1250	Transcription	2
RCR 2102	Captioning/CART II	1
RCR 2180	Captioning/CART Professional Experience	1
RCR 2202	Terminal Speed Building	3
RCR 2212	Terminal Realtime Writing	1
GEO 2200	World Regional Geography	3
--	PHL, PLS, SOC Elective	3
Total Credit Hours (Quarters)		63
Total Credit Hours (Semesters)		26

\* RTR 175 and RCR 1255 are optional skill building courses that students may elect to take to increase skill growth.

# Court Reporting / Captioning Certificates

## Judicial Reporting Scopist Departmental Certificate (445)

A one-year departmental certificate in Judicial Scoping is available for students wishing to use the skills acquired in the first year of the Judicial Realtime Reporting program to work in their career while completing their degree in Realtime Reporting . All courses required for the completion of this certificate can be applied toward the completion of the Judicial Realtime Reporting associate degree program or the Broadcast Captioning/CART associate degree program. Scopists are hired by judicial reporters to edit and proofread transcripts while the reporters work in court or take depositions. This certificate can be applied for by filling out the certificate application form in the Business and Applied Technologies Division Office in the Brinkman Educational Center.

### Course # Course Title Credit Hours

#### Fall (Quarters)

RTR 105	Realtime Theory	7
RTR 110	Survey of Realtime Reporting	1
RTR 113	Realtime Writing I	1
RTR 125	Vocabulary/Reference Use	2
ITS 103	Information Technology Basics	3
OAD 105	Business English	4

## Winter (Quarters)

RTR 114	Realtime Writing II	1
RTR 131	Beginning Computer Assisted Transcription *	3
RTR 143	Speed Building I	4
RTR 170	Transcription	2
ENG 111	English I	4
ENG 221	Business Communication	3

## Spring (Quarters)

RTR 115	Realtime Writing III	1
RTR 120	Law and Legal Terminology	2
RTR 144	Speed Building II	5
RTR 170	Transcription	2
ENG 112	English II	4
--	Humanities/Social Science Elective (GA)	3

## Summer (Quarters)

RTR 116	Realtime Writing IV	1
RTR 145	Speed Building III *	5
RTR 170	Transcription *	2
MST 105	Medical Terminology	3
--	Humanities/Social Science Elective	3
Total Credit Hours (Quarters)		66

\*Beginning Computer Assisted Transcription, Transcription, and Speed Building III, credits must have been successfully completed within the last five years before the Scopist certificate is awarded.

# Early Childhood / Teacher Education

## Career and Technical Education - ATS

### Degree Requirement for Route B Career-Technical License

In 2004, the Ohio Department of Education recommended amending Chapter 3301-24-08 of the Teacher Education and Licensure Standards, Professional or Associate License Renewal. This recommendation resulted in a change regarding Route B career-technical licenses. This rule states that the second renewal of the professional career-technical license obtained pursuant to the provisions in paragraph (D) (7) of Rule 3301-24-05 of the Administrative Code shall require completion of a degree applicable to the career field, classroom teaching, or area of licensure. The second renewal of a Route B career-technical license, therefore, requires that the applicant hold at least an Associate Degree. This rule applies to all first Route B Licensures issued after December 30, 2004.

To help you meet this requirement, Clark State Community College has developed an Associate of Technical Studies (ATS) degree specializing in career-technical education.

This ATS degree was designed specifically for Career and Technical educators who currently have a Route B career-technical license, so completing the program is easy!

- Utilize your technical work experience
- Transfer in professional career-technical teacher education coursework
- Complete general education coursework through Clark State

All Clark State coursework can be completed online or at one of our three campus locations in Springfield, Beavercreek and Bellefontaine.

### Curriculum

- Basic Requirement: Technical work-based experience credit: 21 quarter hour credits based on documentation of Ohio Route B Licensure.
- Technical Requirement: A combination of Professional Teacher Education coursework transferred from ODE approved institutions and
- MGT 200 Introduction to Project Management (4 credit hours)
- COM 121 Public Speaking (3 credit hours) to a total of 46 credit hours.
- CSCC General Education coursework: 23 quarter hour credits including:

Course #	Course Title	Credit Hours
ENG 111	English I	4
ENG 112	English II	4
ENG 223	Technical Report Writing	or
ENG 221	Business Communication	3
--	Social Science Elective	3
--	Humanities Elective	3
--	Humanities Elective	3
	Total Credit Hours (Quarters)	20

\*At least 30 quarter hours must be completed at Clark State.

\*\* At least one of the four humanities/social science courses must contain global awareness and diversity components. These courses have a (GA) after their listing in the catalog.

\*\*\* If the combination of education credits transferred in and MGT 200 and COM 121 do not total 46 quarter credit hours, the student will need to have additional technical credits approved by his/her advisor to meet the 46-credit-hour minimum.

## Early Childhood Education (710)

### Early Childhood Education - Pre-Kindergarten Licensure

The Early Childhood Education (ECE) program prepares individuals for employment in licensed child care 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 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 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.

## 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 NAEYC-accredited Early Childhood Education Center adjacent to the Leffel Lane Campus, operated by Clark State and Springfield-Clark 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. Additionally, candidates must pass the Praxis II Pre-Kindergarten section.

## T.E.A.C.H Ohio

The Early Childhood Education program is an approved Teacher Education and Compensation Helps (T.E.A.C.H.) Ohio scholarship provider.

## 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 twice must be approved by the program coordinator. All graduating students must successfully complete the Capstone Course (ECE 2317) 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 is available in the College Catalog.

## Course # Course Title Credit Hours

### Fall (Quarters)

ECE 101	Professional Development for Educators	1
ECE 102	Introduction to Early Childhood Education	4
ECE 114	Art, Music and the Child	3
ECE 213	Health, Safety and Nutrition	3
ENG 111	English I	4
PSY 111	Psychology I	3

## Winter (Quarters)

ECE 110	Infant/Toddler Education	3
ECE 210	Children's Literature	3
EEP 122	Diversity in Education	3
ENG 112	English II	4
PSY 221	Human Growth and Development I	3
SOC 110	Sociology	3

## Spring (Quarters)

ECE 108	Observing and Assessing Young Children	4
ECE 120	Language Development and the Child	3
ECE 250	Positive Guidance in Early Childhood	3
COM 121	Public Speaking I	3
ITS 12W	Beginning Word Processing	1
SOC 240	Racial and Cultural Minorities	3

## Fall (Semesters)

ECE 1112	Cognitive Development in Early Childhood	3
ECE 2130	Practicum Field I	1
ECE 2133	Early Education Curriculum and Instruction	3
ECE 2224	School Age Curriculum	1
ECE 290B	Bridge Course/ECE 211- Sensory Motor Skills	1
EDU 1110	Introduction to Education	3
MTH 1050	Mathematics and Today's World	3
PSY 2218	Introduction to Educational Psychology	3

## Spring (Semesters)

ECE 2110	Family, Community, Schools	3
ECE 2120	Leadership, Management, Mentoring in Early Childhood Education	3
ECE 2135	Practicum Field II	2
ECE 2137	Seminar II	2
EDU 2216	Technology for Educators	3
EDU 2217	Individuals with Exceptionalities	3
	Total Credit Hours (Quarters)	54
	Total Credit Hours (Semesters)	34

# Early Childhood / Teacher Education Certificates

## Child Development Associate Credential (CDA)

The Clark State Community College Early Childhood Education Program offers a 9-month CDA instructional program. Upon completion of the program, students will be prepared to begin the application process and receive their Child Development Associate certificate. CDA certification is recognized nationally as a measure of quality preparation for entry into the early childhood education career ladder. Employers are seeking such qualified teachers to improve their Step Up to Quality ratings. The program also prepares the student for preschool and/or infant-toddler certification.

### General Information

Clark State offers three courses for students to earn two different endorsements, each in a different setting:

- Center-based infant/toddlers: This is a state-licensed child development center where a provider works as a primary caregiver with a group of at least three children, ages birth through thirty-six months. In addition, the entire center-based program needs to have at least 10 children enrolled with at least two caregivers working in the center on a regular basis.
- Center-based preschool: This is a state-licensed child development center where a provider works with a group of at least eight children. All of the children in the group are ages three through five years. In addition, the entire center-based program needs to have at least 10 children enrolled with at least two caregivers working in the center with the children on a regular basis.

Each student will complete three courses over a nine-month period. Two courses will be taken by both preschool and infant-toddler candidates and one course will be specific to the age focus. The three course sequence begins in fall quarter and runs through spring quarter. The sequence will be offered at either the Leffel Lane campus or the Greene Center campus.

### Upon completing the three courses, CDA students will:

1. Complete all six Competency Goals:
  - Competency Goal I: To establish and maintain a safe, healthy, learning environment.
  - Competency Goal II: To advance physical and intellectual competence.
  - Competency Goal III: To support social and emotional development and to provide positive guidance.
  - Competency Goal IV: To establish positive and productive relationships with families.
  - Competency Goal V: To ensure a well-run, purposeful program responsive to participant needs.

- Competency Goal VI: To maintain a commitment to professionalism.
- 2. Complete 120 clock hours focusing on the thirteen different Functional areas described by the CDA Council.
- 3. Create Professional Resource File of seventeen specific files based on each competency goal area.
- 4. Complete an Autobiography.
- 5. Distribute and collect Parent Opinion Questionnaires.
- 6. Complete application process and practice tests in preparation of CDA Council's Visit and Review.

### General Requirements to obtain CDA credentials:

- Be eighteen years of age or older.
- Hold a high school diploma or GED.
- Have 480 hours of experience working with young children within the past five years.
- Be currently working in a classroom with age of your endorsement (Infant-Toddler 0-3 and Preschool 3-5 years of age).
- 120 clock hours of formal child care education within past five years\*.
- Students need to take all three of the courses to complete their CDA process and must, therefore, commit to a full 9-months upon enrollment.

\*Provided through the three courses.

### Credit towards Early Childhood Education Associate Degree

Students who complete the three course sequence and obtain their CDA credential may substitute the CDA courses for ECE 213, Health, Safety and Nutrition and ECE 115, Resources in Early Childhood Education in the ECE Associate Degree Curriculum.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

ECE 131	Child Development Associate (CDA) - A	4
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#### Winter (Quarters)

ECE 133	Child Development Associate (CDA) - B1 Preschool	4
ECE 135	Child Development Associate (CDA) - B2 Infant Toddler	4

#### Spring (Quarters)

ECE 137	Child Development Associate (CDA) - C	5
	Total Credit Hours (Quarters)	17

## Emergency Medical Services (610)

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 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 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 patho-physiologic and psycho-social 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.

### 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:

- Pass COMPASS Reading test with a score of 70 and COMPASS Math test with score of 47, or pass with a grade of C or better the appropriate College preparatory course. (CPE 062 for Reading and CPE 091 for Math)
- Complete MST 105 and BIO 105 with a C or better.
- Have Ohio EMT-Basic certification.
- Have Current CPR provider certification.
- Complete physical exam and health requirements.
- Complete criminal background check requirements.

### 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 MST 105 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 coursework 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 coursework, 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 is in the catalog in the General Education area.

### Degree Options

Students may choose to pursue an EMS degree with a focus on one of three concentrations:

- 1) Medical concentration: technical electives should include NUR 120 and SWK 105.
- 2) Management concentration: technical electives should include MGT 112, COM 121 and FFC 2060.
- 3) Firefighter concentration: technical electives should include FFC 1050, FFC 2010, FFC 2060 and /or FFC 2090.

## EMT-Basic Certification (610)

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:

- Pass COMPASS reading test with a score of 70 or better, writing of 70 or better or pass CPE 062 Reading and CPE 072 Writing with a grade of C or better.
- Have Basic Life Support (BLS) certification for professional CPR or obtain instructor permission to enroll in EMS 171, Basic Life Support concurrently.
- Complete health requirements.
- Complete criminal background check requirement.

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

Course #	Course Title	Credit Hours
EMS 100	EMT-Basic Theory and Practice	10
Total Credit Hours (Quarters)		10

## EMT-Intermediate Certification (610)

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.

### Prerequisites

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

- Pass COMPASS Reading test with score of 70 and COMPASS Math test with score of 47, or pass with a grade of C or better the appropriate College preparatory course. (CPE 061 and/or CPE 062 for Reading and CPE 091 for Math).
- Have Ohio EMT-Basic certification.
- Have current CPR provider certification.
- Complete physical exam and health requirements.
- Complete criminal background check requirements.

## Course # Course Title Credit Hours

### Summer (Quarters)

MST 105	Medical Terminology	3
BIO 105	Fundamentals of Anatomy and Physiology	4

### Fall (Quarters)

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
ENG 111	English I	4
ITS -	Computer Modules	3

### Winter (Quarters)

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
ENG 112	English II	4
PSY 111	Psychology I	3

### Spring (Quarters)

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 (Semesters)

EMS 2220	Advanced Topics in EMS I	3
MGT 106	Organizational Behavior	3
----	Humanities/Social Science elective *	3
----	Technical elective **	3
----	Technical elective **	3

### Spring (Semesters)

EMS 2240	Advanced Topics in EMS II	3
PSY 223	Lifespan Human Growth and Development	3
PHL 210	Ethics	3
----	Humanities/Social Science elective*	3
----	Technical elective **	3
--	Technical Elective **	4
Total Credit Hours (Quarters)		56
Total Credit Hours (Semesters)		34

\* Students who have current Ohio EMT Intermediate Certification are given in-class credit for clinical skills previously obtained.

\*\* Technical electives include: NUR 120, SWK 105, MGT 112, FFC1050, FFC 2010, FFC 2060 or FFC 2090.



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 Title	Credit Hours
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### Winter (Quarters)

EMS 107	EMT Intermediate Theory/Practice I	6
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### Spring (Quarters)

EMS 108	EMT Intermediate Theory/Practice II	6
EMS 113	EMT INTMED HOSP FIELD PRACT	1

Total Credit Hours (Quarters)		13
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## Paramedic Certification (610)

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:

- Pass COMPASS Reading score of 70 or better, Writing score of 70 or better, and Math score of 47 or better or pass with a grade of C or better the appropriate College preparatory course. (CPE 062 for Reading and CPE 091 for Math).
- Complete MST 105 and BIO 105 with a C or better.
- Have Ohio EMT-Basic certification.
- Have Current CPR provider card.
- Complete physical exam and health requirements.
- Complete criminal background check requirements.

Course #	Course Title	Credit Hours
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### Summer (Quarters)

MST 105	Medical Terminology	3
BIO 105	Fundamentals of Anatomy and Physiology	4

### Fall (Quarters)

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 (Quarters)

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 (Quarters)

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 (Quarters)		36
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\* Students who have current Ohio EMT Intermediate certification are given in-class credit for clinical skills previously obtained.

## Paramedic Certification 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 which can be obtained from the Admissions Office or online.
- Have Ohio EMT-Basic certification.
- Have current BLS/CPR provider, ACLS provider or instructor, and PALS provider or instructor certification. PHTLS or BTLIS provider certifications are recommended.
- Complete physical exam and health requirements.
- Complete criminal background check if required by clinical agency.
- Complete education and training waiver request form.
- Have active Ohio licensure/certification as RN, nurse practitioner, respiratory therapist or physician's assistant.

Petition Form for Paramedic Certification for Registered Nurses Program

Course #	Course Title	Credit Hours
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EMS 288	Paramedic Theory/RNs	6
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Total Credit Hours (Quarters)		6
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## Firefighter Level I

The Level 1 firefighter course (8 credit hour) is 156 hours of classroom and practical skills application that is completed in one quarter. Upon successful completion of this course the student is eligible to sit for State of Ohio certification as a Level 1 firefighter.

Those who complete the course and pass the State certification are eligible to work in volunteer, part-time, or paid on-call fire department. (Pro-Board Accreditation eligible)

This course is the foundation that serves as a stepping stone to a full-time career firefighter position.

Students entering FFC 297 must:

- Pass the COMPASS reading test with a score of 70 or better or pass CPE 061, Reading Comprehension I, with a grade of C or better.
- Must have NIMS 100 & 700
- Have a physical from licensed Physician
- Must have Instructor permission

Course #	Course Title	Credit Hours
FFC 927	Firefighter Level I	8
	Total Credit Hours	8

## Firefighter Level II

The Level II firefighter course (8 credit hour) is 120 hours of classroom and practical skills application that is completed in one quarter. Upon successful completion of this course the student is eligible to sit for State of Ohio certification as a Level II firefighter.

Those who complete the course and pass the State certification are eligible to work as a career firefighter in the State of Ohio. (Pro-Board Accreditation eligible)

This course completes the NFPA 1001 requirements to be a full-time career firefighter in the State.

Students entering FFC 298 must:

- Pass the COMPASS reading test with a score of 70 or better or pass CPE 061, Reading Comprehension I, with a grade of C or better.
- Must have a current Level I firefighter card.
- Must have NIMS 100 & 700
- Have a physical from licensed Physician
- Must have Instructor permission

Course #	Course Title	Credit Hours
FFC 298	Firefighter Level II	8
	Total Credit Hours	8

# Engineering Technology

## Computer-Aided Design Technology (521)

Students completing an Associate of Applied Science 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 the Office of Career Management 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 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 of Applied Science 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.

### Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### Scholastic Preparation

Students starting the program should have 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 are encouraged to take DFT 101, Drafting I, but not required. Those without high school physics must complete PHY 110, Fundamentals of Physics.

### Course # Course Title Credit Hours

#### Fall (Quarters)

DFT 211	Computer-Aided Design I	4
ENG 111	English I	4
ENT 101	Engineering Methods	3
ENT 121	Computer Basics for Applied Technology	3
INT 105	Blueprint Reading & Schematics	3

#### Winter (Quarters)

DFT 212	Computer- Aided Design II	4
COM 121	Public Speaking I	3
ENG 112	English II	4
ENT 104	Dimensional Metrology	3
--	Humanities/Social Science Elective*	3

#### Spring (Quarters)

DFT 111	Architecture I	4
DFT 203	Technical Publication	4
EBE 100	Employability Skills	2
ENG 223	Technical Report Writing	3
ENT 111	Engineering Materials	3

#### Fall (Semesters)

CAD 2100	Solid Modeling	3
CAD 2302	Architecture II	3
ENT 2100	Manufacturing Processes	3
ENT 2600	Engineering Design	3
MTH 1280	College Algebra	3
--	Co-op or Technical Elective**	3

## Spring (Semesters)

CAD 2200	Advanced Solid Modeling	3
ENT 2700	Engineering Technology Project	3
MTH 1340	Pre Calculus	4
PHY 1501	General Physics I with Algebra	5
- -	Humanities/Social Science Elective	3

Total Credit Hours (Quarters) 50

Total Credit Hours (Semesters) 36

\* Other humanities/social science electives may be substituted (at least one must be a social science and one must fulfill the Global Awareness requirement).

\*\*Tech electives 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 any course not already prescribed in the following: DFT (except DFT 101), ENT, INT or NTK 176.

## Industrial Technology (571)

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 and understand the safety requirements for working in an industrial setting.
- Demonstrate fundamental knowledge of electrical, mechanical and fluid power machinery.
- Use commonly available instruments, schematics, operating manuals and troubleshooting guides to troubleshoot electrical, fluid power and mechanical 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.
- Demonstrate the ability to make measurements and log the measurements properly based on the requirements of the components or systems.

## 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 day, evening and Saturday 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.

### Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### 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 are encouraged to take DFT 101, Drafting I, but not required.

### Course # Course Title Credit Hours

#### Fall (Quarters)

INT 115	Industrial Calculations	3
INT 140	Industrial Safety	2
ENG 111	English I	4
ENT 104	Dimensional Metrology	3
ENT 121	Computer Basics for Applied Technology	3

#### Winter (Quarters)

INT 120	Hydraulics/Pneumatics I	4
INT 150	Electrical Systems	4
INT 170	Mechanical Maintenance	4
EBE 100	Employability Skills	2
ENG 112	English II	4

#### Spring (Quarters)

INT 125	Hydraulics/Pneumatics II	4
INT 155	Motors and Motor Controls	4
INT 251	Programmable Logic Controllers (Allen-Bradley)	4
INT 255	Electrical Troubleshooting	4

MTH 106	Business Mathematics	or
PHY 110	Fundamentals of Physics	3

### Fall (Semesters)

INT 2200	Hydraulic and Pneumatic Trouble Shooting	3
INT 2350	Electrical Distribution	3
INT 2550	Automated Systems	3
CAD 1101	Computer-Aided Design I	3
--	Co-op or Technical Elective*	3
--	Humanities/Social Service Elective (GA)**	3

### Spring (Semesters)

INT 2400	Industrial Machine Maintenance	3
INT 2800	Industrial Technology Projects	3
COM 1120	Public Speaking I	3
--	Co-op or Technical Elective*	3
--	Humanities/Social Service Elective**	3
Total Credit Hours (Quarters)		52
Total Credit Hours (Semesters)		33

\* Tech electives must total a minimum of 6 semester hours in any combination of co-op (EBE 282 - EBE 284, EBE 292 - EBE 294, EBE 2701 - EBE 2704, EBE 2801 - EBE 2804) or any course not already prescribed using the following course codes: DFT (except DFT 101) or CAD, ENT, and INT or AGR 115, AGR 187 and AGR 245, AGR 1800, AGR 245.\*\* One of the humanities/social science electives must be a global awareness (GA) course.

## Manufacturing Engineering Technology (540)

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 students can include an optional co-op experience. Students must complete EBE 100, Employability Skills, as a technical elective and then work with Office of Career Management to secure an appropriate co-op site.

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. Students should consult their academic advisors for help in planning their schedules.

### Scholastic Preparation

Students starting the program should have had 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 are encouraged to take DFT 101, Drafting I, but not required. Those without high school physics must complete PHY 110, Fundamentals of Physics.

### Learning Outcomes

Upon completion of an Associate of Applied Science 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 materials properties, manufacturing methods and cost.
- Design, build and document an industrial project.

### Transfer Options

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives can be found in the College Catalog.

### Course # Course Title Credit Hours

#### Fall (Quarters)

ENT 101	Engineering Methods	3
ENT 104	Dimensional Metrology	3
ENT 121	Computer Basics for Applied Technology	3
DFT 211	Computer-Aided Design I	4
ENG 111	English I	4

#### Winter (Quarters)

ENT 205	Circuits and Machines	4
COM 121	Public Speaking I	3
ENG 112	English II	4
INT 120	Hydraulics/Pneumatics I	4
MTH 121	College Algebra I	3

#### Spring (Quarters)

ENT 111	Engineering Materials	3
ENT 205	Circuits and Machines	4
ENT 210	Engineering Statistics	3
MTH 140	Trigonometry	3
PHY 111	Physics I	4

**Fall (Semesters)**

ENT 2100	Manufacturing Processes	3
ENT 2200	Statics	3
ENT 2600	Engineering Design	3
CAD 2100	Solid Modeling	3
INT 2400	Industrial Machine Maintenance	3
INT 2500	Programmable Logic Control	3

**Spring (Semesters)**

ENT 2300	Strength of Materials	3
ENT 2700	Engineering Technology Project	3
EBE 1000	Employability Skills	1
INT 2550	Automated Systems	3
MGT 2000	Introduction to Project Management	3
--	Humanities/Social Science Elective*	3
Total Credit Hours (Quarters)		52
Total Credit Hours (Semesters)		34

\* Other humanities/social science electives may be substituted (at least one must be a social science and one must fulfill the Global Awareness requirement).

\*\* Tech electives 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 any course not already prescribed from the following areas: DFT (except DFT 101), ENT, INT or NTK 176.

## Mechanical Engineering Technology (550)

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 technology 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.

**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.

**Scholastic Preparation**

Students starting the program should have had the entire high school high-level 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 are encouraged to complete DFT101, Drafting I, but not required. Those without high school physics must complete PHY110, Fundamentals of Physics.

**Transfer Options**

Students enrolled in Associate of Applied Business and Associate of Applied Science degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

**Humanities/Social Science Electives**

A complete listing of humanities and social science electives can be found in the College Catalog.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENT 101	Engineering Methods	3
ENT 121	Computer Basics for Applied Technology	3
DFT 211	Computer-Aided Design I	4
ENG 111	English I	4
MTH 121	College Algebra I	3

**Winter (Quarters)**

ENT 104	Dimensional Metrology	4
ENT 210	Engineering Statistics	3
ENT 294	Special Topics - Circuits	4
ENG 112	English II	4
INT 212	Electronic Systems	4

**Spring (Quarters)**

ENT 111	Engineering Materials	3
ENT 298	Special Topics - Digital Switching	4
COM 121	Public Speaking I	3
ECO 222	Principles of Microeconomics	3
ENG 223	Technical Report Writing	3
MTH 140	Trigonometry	3

## Fall (Semesters)

ENT 2100	Manufacturing Processes	3
ENT 2200	Statics	3
ENT 2600	Engineering Design	3
MTH 2200	Calculus I	5
PHY 1501	General Physics I with Algebra	or
PHY 2501	College Physics I with Calculus	5

## Spring (Semesters)

ENT 2300	Strength of Materials	3
ENT 2700	Engineering Technology Project	3
HST 1110	Western Civilization to 1600	3
MTH 2220	Calculus II	5
PHY 1502	General Physics II with Algebra	or
PHY 2502	College Physics II with Calculus	5
Total Credit Hours (Quarters)		55
Total Credit Hours (Semesters)		38

Students wishing to seek an Engineering Technology Bachelors Degree at a four-year university are highly encouraged to review articulation agreements and consult with their academic advisor. If students begin the math series after MTH 121, they may substitute Ohio Transfer module or CSD courses for the skipped MTH classes. Credit hours must be equal to or greater than the number of credit hours skipped.\*Any course not already prescribed from the following course codes: DFT (Except for DFT 101), ENT, INT.

# Engineering Certificates

## Computer-Aided Design (CAD) Certificate (525)

The Computer-Aided Design (CAD) Certificate is designed to provide the technical background necessary to produce mechanical drawings using 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 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.

## 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 benefit from having two years of high school drafting. Students who have not had two years of high school drafting or significant work experience in drafting are encouraged to take DFT 101, Drafting I, but not required. Students may take these preparatory courses at Clark State, but it will require a longer amount of time to complete their program.

### Course # Course Title Credit Hours

#### Fall (Quarters)

DFT 211	Computer-Aided Design I	4
ENG 111	English I	4
ENT 101	Engineering Methods	3
ENT 121	Computer Basics for Applied Technology	3
ENT 104	Dimensional Metrology	3

#### Winter (Quarters)

DFT 212	Computer- Aided Design II	4
ENT 131	Manufacturing Processes	4
MTH 107	Technical Mathematics Applications B	1
MTH 121	College Algebra I	3

#### Spring (Quarters)

ENT 204	Engineering Design	3
ENT 111	Engineering Materials	3
DFT 111	Architecture I	4
DFT 214	Solid Modeling	4
MTH 108	Technical Mathematics Applications C	1
MTH 140	Trigonometry	3
Total Credit Hours (Quarters)		47

## Electrical Maintenance Certificate (575)

The Electrical Maintenance Certificate provides a broad base of courses in the field of industrial maintenance.

### Course # Course Title Credit Hours

#### Fall (Quarters)

INT 115	Industrial Calculations	3
INT 140	Industrial Safety	2
ENT 104	Dimensional Metrology	3
ENT 121	Computer Basics for Applied Technology	3
EBE 100	Employability Skills	2
ENG 111	English I	4

#### Winter (Quarters)

INT 120	Hydraulics/Pneumatics I	4
INT 150	Electrical Systems	4
INT 170	Mechanical Maintenance	4
DFT 211	Computer-Aided Design I	4
COM 121	Public Speaking I	3

#### Spring (Quarters)

INT 125	Hydraulics/Pneumatics II	4
INT 155	Motors and Motor Controls	4
INT 251	Programmable Logic Controllers (Allen-Bradley)	4
Total Credit Hours (Quarters)		48

## Electronics Certificate (571)

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

### Course # Course Title Credit Hours

#### Fall (Quarters)

INT 140	Industrial Safety *	2
ENT 104	Dimensional Metrology	3
INT 105	Blueprint Reading & Schematics	3
INT 115	Industrial Calculations	3
INT 150	Electrical Systems *	4
ENT 121	Computer Basics for Applied Technology	3

#### Winter (Quarters)

INT 155	Motors and Motor Controls	4
INT 175	Foundations of Digital Control	4
INT 251	Programmable Logic Controllers (Allen-Bradley)	4
EBE 100	Employability Skills	2
ENG 111	English I	4

#### Spring (Quarters)

INT 212	Electronic Systems	4
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INT 252	Automated Systems	4
INT -	Co-op or Technical Elective	4

#### Summer (Quarters)

INT 225	Industrial Electronics	3
Total Credit Hours (Quarters)		51

\* INT 140 must be completed before starting INT 150

## Manufacturing Certificate (546)

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.

#### 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 # Course Title Credit Hours

#### Fall (Quarters)

ENT 101	Engineering Methods	3
ENT 104	Dimensional Metrology	3
ENT 121	Computer Basics for Applied Technology	3
ENG 111	English I	4
MTH 121	College Algebra I	3

#### Winter (Quarters)

ENT 131	Manufacturing Processes	4
ENT 205	Circuits and Machines	4
DFT 211	Computer-Aided Design I	4
MTH 107	Technical Mathematics Applications B	1
MTH 140	Trigonometry	3

#### Spring (Quarters)

ENG 112	English II	4
INT 250	Programmable Logic Controllers	3
INT 252	Automated Systems	4
MTH 108	Technical Mathematics Applications C	1
PHY 111	Physics I	4
Total Credit Hours (Quarters)		48



# GIS/Geospatial

## GIS/Geospatial Technology (478)

According to the U.S. Bureau of Labor Statistics, jobs for individuals with geospatial technology skills are expected to grow 10 to 20 percent over the next decade. It is a high-technology field with the significant job growth occurring in both the public and private sectors. Career areas include photogrammetry, cartography, geographical information systems, global positioning systems and remote sensing.

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. Students should consult their academic advisor for help in planning their schedules.

### Learning Outcomes

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

- Acquire geospatial information from a variety of sources
- Use, combine, and manage geospatial data for a given purpose
- Interpret and analyze geospatial information
- Use geographic information system software for storage, manipulation, and analysis of geospatial data

### Scholastic Preparation

Students should possess mathematical, analytical, and spatial reasoning skills and should be comfortable using technology. Students who have not completed a full sequence of high school mathematics will need to complete a series of college preparatory math classes.

### Transfer Options

Students enrolled in applied associate degree programs are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of colleges or universities have designed baccalaureate completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

GST 101	Introduction to Geospatial Technology	4
DFT 211	Computer-Aided Design I	4
ENG 111	English I	4
ITS 103	Information Technology Basics	3
MTH 121	College Algebra I	3

#### Winter (Quarters)

GST 120	Introduction to GIS	3
ENG 112	English II	4
ITS 12D	Beginning Database	1
ITS 12S	Beginning Spreadsheet	1
ITS 109	Introduction to SQL	3
MTH 122	College Algebra II	3
MTH 140	Trigonometry	3

#### Spring (Quarters)

GST 210	Georeferencing and Mapping	3
CSD 104	Programming Fundamentals	5
CSD 130	Database Management Systems	3
EBE 100	Employability Skills	2
STT 264	Statistics I	4

#### Fall (Semesters)

GST 1500	Remote Sensing	3
GST 2100	Intermediate GIS	3
GST 2550	Photogrammetry	3
MGT 2000	Introduction to Project Management	3
STT 2640	Elementary Statistics I	3
--	Humanities/Social Science Elective	3

#### Spring (Semesters)

GST 2350	Programming for GIS	3
GST 2700	Advanced Topics in Geospatial Technology	4
EBE 2702	Co-Op Education I	2
--	Natural and Physical Sciences Elective	3
--	Technical Elective	3
Total Credit Hours (Quarters)		53
Total Credit Hours (Semesters)		33

\*GST electives must total a minimum of 6 credit hours and may come from any GST, CSD or ATI course not already prescribed or any of the following: DFT 212, MGT 200, STT 265.

# GIS/Geospatial Certificates

## GIS Certificate (478DC)

The Geographic Information System (GIS) Certificate is designed to provide the technical background necessary to begin a successful career as a GIS Technician. The GIS certificate can also enhance the employment opportunities of individuals pursuing a wide range of majors and careers in fields that increasingly use geographic information systems to accomplish their goals such as agriculture, technical intelligence, law enforcement, logistics, security, marketing, public service, etc. Students who have little background related to geospatial technology or geographic information systems or are not using it to enhance other career areas are cautioned that the certificate alone may not provide them the full skill set needed to meet their GIS career goals. The course work in the GIS certificate program can be applied to the associate degree in GIS/Geospatial Technology. This certificate program will take somewhat longer than one year to complete due to the sequence of prerequisite courses and the terms in which the courses are offered.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

GST 101	Introduction to Geospatial Technology	4
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### Winter (Quarters)

GST 120	Introduction to GIS	3
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### Spring (Quarters)

GST 210	Georeferencing and Mapping	3
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### Fall (Semesters)

GST 2100	Intermediate GIS	3
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### Spring (Semesters)

GST 2700	Advanced Topics in Geospatial Technology	4
Total Credit Hours (Quarters)		10
Total Credit Hours (Semesters)		7

# Graphic Design / Photography

## Graphic Design (442)

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 Adobe InDesign and 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.

# Graphic Design / Photography Certificates

## Photography Certificate (225)

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.

### 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.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives can be found in the College Catalog.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

PHO 111	Photography I	3
MGT 105	Contemporary American Business	3
ENG 111	English I	4
- -	Humanities/Social Science Elective	3
PHO 130	Digital Photography I	3

#### Winter (Quarters)

PHO 112	Photography II	3
ART 130	Appreciation of the Arts	3
COM 111	Interpersonal Communication	3
PHO 131	Digital Photography II	3

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

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 (Quarters)

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 (Quarters)

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

#### Fall (Semesters)

GPH 2111	Digital Illustration II	3
GPH 2011	Computer Layout I	3
GPH 2202	Electronic Imagery II	3
ITS 1400	Web Design Essentials	2
GPH 2120	Logo, Symbol, Corporate I.D.	3

#### Spring (Semesters)

GPH 2012	Computer Layout II	3
GPH 2085	Graphic Design Internship	3
GPH 2051	Professional Development	3
ITS 1400	Web Design Essentials	2
	Total Credit Hours (Quarters)	46
	Total Credit Hours (Semesters)	25

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.

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a 2 semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter based and semester based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

## Spring (Quarters)

PHO 121	Color Photography I	3
ART 135	Art History III	3
ENG 112	English II	4
PSY 111	Psychology I	3
PHO 132	Digital Photography III	3

## Summer (Quarters)

PHO 122	Color Photography II	4
PHO 124	Photography Portfolio	4
PHO 180	Photography Practicum	3
Total Credit Hours (Quarters)		55

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a 2 semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter based and semester based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

# Health

## Medical Assisting (670)

Medical Assistants perform clinical and administrative tasks in physicians and other health practitioners' offices and outpatient facilities. Specific duties vary from office to office depending on the location and size of the practice and the practitioner's specialty. Administrative duties include answering telephones, greeting patients, scheduling appointments and laboratory services, updating and filing patients' medical records, filling out insurance forms and handling billing and bookkeeping. Clinical duties include taking medical histories and recording vital signs, explaining procedures to patients, preparing patients for and assisting the physician during examinations, collecting and preparing laboratory specimens, sterilizing medical instruments, instructing patients on medications and special diets, preparing and administering medications as directed by a physician, drawing blood, taking electrocardiograms, removing sutures and changing dressings.

The primary goal of the Medical Assisting program is to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Students who complete the first year of this associate degree program have completed the course work for the certificate program. Completion of the certificate provides the student with the administrative and clinical skills needed for entry-level positions as a medical assistant.

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 requirements, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

## Learning Outcomes

Upon completion of the Medical Assisting associate degree, a graduate will be able to:

- Coordinate and facilitate patient care throughout the ambulatory care setting.
- Communicate effectively with patients, families and members of the health care team.
- Perform clerical functions necessary to maintain medical office appointments, transcription and medical records.
- Apply basic billing, collection, insurance, coding, and manage care guidelines needed to maintain office bookkeeping.
- Collect, transport and process specimens.
- Obtain vital signs.
- Perform, assist, and follow up on diagnostic tests and procedures.
- Provide patient care.
- Instruct patients regarding health maintenance and disease prevention.
- Apply legal and ethical concepts.
- Apply privacy and confidentiality practices.

## Scholastic Preparation and Requirements

Entry into the Medical Assisting program is on a space limited basis. Students must petition for admission to the program and are considered for admission by the date in which they complete all petitioning requirements and file their petition online at [www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php). To be eligible to petition to the Medical Assisting program, students must have:

- A minimum COMPASS reading score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE061 and/or CPE 062).
- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 071 and/or CPE 072).
- Students are excused from taking the reading and writing placement tests if they have taken an ACT or SAT exam within the past 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 38 on the prealgebra and 29 on the algebra tests. 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/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 or have taken and received a C or better in a college-level math course within the past ten years.

- A minimum cumulative grade point average (GPA) of 2.0 or greater in the required courses in the curriculum.

Students are admitted into the Medical Assisting program's technical (MAS) course sequence twice a year in winter and spring quarters. Admission letters for winter quarter entry will be mailed in October. Acceptance letters for spring quarter entry will be mailed in February. Students will continue to be granted admission if space is available up until the start of the quarter. Students must maintain an overall C or 2.0 grade point average (GPA) for the courses in the Medical Assisting curriculum in order to be enrolled in MAS courses. In order to progress through the program, students must maintain an overall GPA of 2.0 and a grade of C or better in all MAS courses. Admitted students who stop out must complete and submit a request for reinstatement into the MAS courses. Students must have an overall GPA of 2.0 to be considered for reinstatement and requests are then granted on a space available basis.

### Health and Directed Practice Requirements

All Medical Assisting associate degree and certificate students will complete 250 hours of directed practice at the end of the first year of the degree program or end of the certificate program. The Directed Practice course hours are only available during the daytime hours.

All Medical Assisting students must meet health requirements and have current Basic Life Support (BLS)/professional cardiopulmonary resuscitation (CPR) certification prior to entering the directed practice 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 their second quarter in the Medical Assisting program.

### Liability Insurance

Students will be billed for liability insurance for the directed practice courses.

### Graduation Requirements

Student must pass all the required courses, have a cumulative grade point average (GPA) of 2.0 and must have a C as a minimum grade in BIO 105 and all MAS, MST and MLT courses.

### Certification

The Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Therefore graduates of the program are eligible to take a national certification exam to obtain either their Certified Medical Assistant (CMA) or Registered Medical Assisting (RMA) certification credential.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives can be found in the Clark State catalog.

### Quarters to Semesters Transition

Clark State will be moving from a quarters to a semesters calendar in fall quarter 2012. Full-time students who are accepted to start their medical assisting technical (MAS) courses in winter quarter of 2012 should follow the curriculum

plan below. Students who are accepted to start their medical assisting technical (MAS) courses in spring quarter of 2012 should contact their academic or faculty advisor for a medical assisting technical (MAS) courses spring start advising plan.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

BIO 105	Fundamentals of Anatomy and Physiology	4
ENG 111	English I	4
ITS 12W	Beginning Word Processing	1
MST 101	Introduction to Health Care Delivery	3
MST 105	Medical Terminology	3

#### Winter (Quarters)

MAS 102	Medical Law and Ethics	2
MAS 103	Medical Administrative Office I	3
MAS 104	Exam Room Procedures I	4
ITS 12S	Beginning Spreadsheet	1
MST 171	Introduction to Electrocardiography	3
PSY 111	Psychology I	3

#### Spring (Quarters)

MAS 113	Medical Administrative Office II	3
MAS 114	Exam Room Procedures II	4
MAS 115	Laboratory Procedures for the Medical Office	2
MAS 116	Pharmacology for the Medical Office	2
MLT 116	Phlebotomy	2
MLT 117	Phlebotomy Laboratory	2

#### Summer (Quarters)

MAS 117	Clinical Directed Practice	5
MAS 118	Clinical Perspectives Seminar	1
MAS 210	Medical Assisting Exam Review	2

#### Fall (Semesters)

ENG 1112	English II	3
PSY 2223	Lifespan Human Growth and Development	3
SOC 1110	Introduction to Sociology	3
MGT 1060	Organizational Behavior	3
--	Technical Elective (See list below)*	3

#### Spring (Semesters)

MST 1140	Human Disease	3
MGT 1120	Principles of Management	3
--	Humanities/Social Science Elective (GA)	3
--	Technical Elective (See list below)*	3
Total Credit Hours (Quarters)		57
Total Credit Hours (Semesters)		24

\*Please choose from the following courses to meet the Technical Elective requirement.

- HRM 1725, Human Resource Management (3)
- OAD2105, Medical Machine Transcription (3)
- OAD 2301 CPT/ICD -10-PCS Coding (3)
- OAD 2302, ICD-9-CM/ICD -10-CM Coding Coding (3)
- OAD 2311, Medical Coding Trends and Issues (3)
- SWK 105, Chemical Dependency I (3)

# Medical Laboratory Technology (620)

Medical Laboratory (MLT) 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 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 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 components—an 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. One 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, writing, 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 and criminal background check 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.

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 grade point average (GPA) of 2.0 and must have a C as a minimum grade in all the technical courses of the program. Granting of the A.A.S. degree is not contingent upon passing an external certifying examination.

## Certification

Upon completion of the accredited program, graduates are eligible to, but not required, to take the national certifying examination. This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 North River Road, Suite 720, Rosemont, IL 60018; telephone 773.714.8880; [www.naacls.org](http://www.naacls.org).

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is in the front of the catalog under the General Education area.

## Transfer Options

Students enrolled in the Medical Laboratory Technology, Associate of Applied Science degree are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of college or universities have designed baccalaureate completion programs for students completing applied degrees. Local programs include:

- Franklin University Bachelor of Science in Healthcare Management
- Urbana University Bachelor of Science in Healthcare Management
- University of Cincinnati Bachelor of Science in Clinical Laboratory Science

See the transfer section of the catalog and your academic advisor for more information.

## Quarters to Semesters Transition

Clark State will be moving from a quarter to a semester calendar with fall quarter 2012. Students who are accepted to start their medical laboratory technical (MLT) courses in fall of 2011 should follow the combined quarters and semesters curriculum plan that follows. Students who start their medical laboratory technical (MLT) courses in winter quarter of 2012 should contact their academic or faculty advisor for a MLT winter quarter start advising plan.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

MLT 101	Medical Laboratory Orientation	2
MLT 102	Medical Laboratory Orientation Laboratory	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	4

### Winter (Quarters)

MLT 123	Medical Microbiology I	3
MLT 124	Medical Microbiology I Laboratory	2
MLT 131	Clinical Chemistry	3
MLT 132	Clinical Chemistry Laboratory	3
ENG 112	English II	4
ITS 103	Information Technology Basics	3

### Spring (Quarters)

MLT 125	Hematology I	3
MLT 126	Hematology I Laboratory	3
MLT 135	Urinalysis and Body Fluids	2
MLT 136	Urinalysis and Body Fluids Laboratory	2
COM 111	Interpersonal Communication **	3
PSY 111	Psychology I	3

### Fall (Semesters)

MLT 2120	Immunology & Blood Banking	4
MLT 2125	Immunology & Blood Banking Lab	4
MLT 2130	Medical Microbiology II	2
MLT 2135	Medical Microbiology II Lab	2
MLT 2140	Hematology II	2
MLT 2145	Hematology II Lab	2

### Spring (Semesters)

MLT 2150	Seminar	1
MLT 2155	Directed Practice	5
MLT 2160	MLT Review and Update	2
SOC 1110	Introduction to Sociology	3
- -	Humanities/Social Science Elective	3
Total Credit Hours (Quarters)		52
Total Credit Hours (Semesters)		30

\*The complete three quarter anatomy & physiology sequence, BIO 121, BIO 122, BIO 123 may be substituted for BIO 105.

\*\* COM 121, Public Speaking, may be substituted for COM 111.

## Physical Therapist Assistant (660)

The Physical Therapist Assistant program 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 who completes an initial examination 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 OTPTAT Board requires FBI and Ohio BCI criminal records checks as part of the Ohio licensing application process. Visit the Board website at <http://otptat.ohio.gov> for more information.

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. 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 advisor for help in planning their schedules.

### Learning Outcomes:

Upon completion of the PTA program, a graduate will be able to:

- Demonstrate proficient entry-level knowledge and skill in implementing treatment practices appropriate to the plan of care established by the physical therapist.
- Demonstrate proficient entry-level knowledge and skill in utilizing testing and measurement techniques appropriate to the plan of care established by the physical therapist.
- Communicate effectively with patients, families, colleagues and other health care providers.
- Demonstrate behavior that reflects respect for and sensitivity to individual differences when working with patients, families, colleagues and other health care professionals.
- Adhere to ethical and legal standards throughout the provision of physical therapy services.
- Provide patient care in a safe manner that minimizes risk to patient, self, and others.
- Practice physical therapy in an effective manner making judgments consistent with the physical therapist's plan of care and the role of the physical therapist assistant.
- practice lifelong learning that reflects social responsibility and career development.

## Course Format

Most PTA courses are composed of two components - an online lecture component and a lab component, which may be taught at the Leffel Lane campus or other College approved site. Directed practices are off site in clinical facilities.

## Scholastic Preparation

### 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).
- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 017 and/or CPE 072).
- Students are excused from taking the reading and writing placement tests if they have taken an ACT or SAT exam within the past 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 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 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) or licensure as an athletic trainer.
- A grade of C or better in either high school chemistry (within the past five years) or a college chemistry course (CHM 115 or the equivalent, within the past 10 years) or completion of BIO 121, Anatomy and Physiology I (or the equivalent) with a C or better.
- GPA of 2.5 in the required curricular courses; the GPA includes

chemistry and physics ONLY when no other courses in the PTA curriculum have been taken.

In order to be accepted into the physical therapist assistant courses, students must maintain the required 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 the required 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, Health and Human Services Division office and online.

## Graduation Requirements

A 2.0 cumulative grade point average (GPA) on a 4.0 scale is the standard used for the major courses in the PTA curriculum.

## Clinical Requirements

Prior to the second year, 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. A criminal records check must be completed within the three months immediately prior to entry into clinical courses in the second year. At a minimum, a civilian (BCI) background check is required. A federal (FBI) background check may be required. 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.

## 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 can be found in the Clark State catalog.

## Transfer Options

Students enrolled in the Physical Therapist Assistant, Associate of Applied Science degree are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a baccalaureate degree. A number of college or universities have designed baccalaureate completion programs for students completing applied degrees. Local programs include:

- Franklin University Bachelor of Science in Healthcare Management
- Urbana University Bachelor of Science in Healthcare Management

See the transfer section of the catalog for more information.

### Course # Course Title Credit Hours

#### Fall (Quarters)

PTA 110	PTA Survey	3
PTA 120	Introduction to Patient Management	2
BIO 118	Muscle Function	2
MST 105	Medical Terminology	3
BIO 121	Anatomy and Physiology I	4
ENG 111	English I	4
ITS 103	Information Technology Basics	3

#### Winter (Quarters)

PTA 145	PTA Procedures I	4
BIO 230	Biomechanics	4
BIO 122	Anatomy and Physiology II	4
ENG 112	English II	4
PSY 111	Psychology I	3

#### Spring (Quarters)

PTA 146	PTA Procedures II	5
PTA 160	PTA Rehabilitation I	6
BIO 123	Anatomy and Physiology III	4
PSY 223	Lifespan Human Growth and Development	5

#### Summer (Quarters)

PTA 241	PTA Procedures III	5
PTA 245	PTA First-Year Capstone	1
PTA 290B	Bridge Course/PTA 265	1

#### Fall (Semesters)

PTA 2260	PTA Rehabilitation II	6
PTA 2270	PTA Trends and Issues	1
PTA 2281	Directed Practice I	2
PTA 2291	Seminar I	1
COM 1110	Interpersonal Communication I	3
--	Humanities/Social Science Elective	3

## Spring (Semesters)

PTA 2275	PTA Special Topics	1
PTA 2282	PTA Directed Practice II	2
PTA 2292	Seminar II	1
PTA 2283	PTA Directed Practice III	4
PTA 2293	Seminar III	1
--	Humanities/Social Science GA Elective	3
Total Credit Hours (Quarters)		67
Total Credit Hours (Semesters)		28

## Registered Nursing (630)

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 full-time 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.
- Demonstrate behaviors that reflect respect for and sensitivity to individual differences while working with 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. (Online offering is dependent on sufficient demand for this 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.

## Admissions 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 complete all petitioning prerequisites and file a petition online 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).
- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 071 and/or CPE 072).
- Students are excused from taking the reading and writing placement tests 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 the ACT or SAT exam within the last three years and received mathematics scores of 22 on the ACT or 560 on the SAT or 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 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. Effective winter quarter 2012, entry into clinical nursing courses will occur twice a year. Initial acceptance letters for fall entry are mailed out in February and letters for winter entry will be mailed in September. 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.

## Dual Enrollment Admission Option

Effective winter quarter 2012, a dual enrollment option will be implemented. This option enrolls students to both Clark State Community College and Urbana University. It is designed for students who wish to immediately continue their education to obtain their BSN after completing their associate degree in nursing at Clark State and obtaining their license as a registered nurse (RN) in Ohio. Entry into this program option will initially be limited to ten students each year. Acceptance into the program will be based on specific selection criteria. Additional information about the Clark State/Urbana University Dual Enrollment Nursing option is available from Clark State's academic advisors, Health and Human Services Division office, and the college website.

## Clinical Requirements

Prior to entering the first clinical nursing course (NUR 170) students must have current professional CPR provider status and current state-tested nurse aide credentials or have satisfactorily completed MST 181 or its equivalent within the past two years. Additional information about these requirements can be obtained from academic and faculty advisors. Students must also meet health requirements, show proof of health insurance and meet criminal background check requirements before they enter the first clinical nursing course. Second-year students must update health requirements prior to taking clinical courses. Additional information about these clinical requirements is provided at the nursing program orientation. Students will be billed for liability insurance for each year of clinical courses.

## Progression Requirements

In order to enroll in NUR 170 and progress to subsequent clinical nursing course, students must have successfully completed all pre-requisite courses with a grade of C or better.

## Graduation Requirements

To qualify for an associate degree, Registered Nursing students must have a cumulative grade point average of 2.0 and have a grade of C or better in all courses in the curriculum.

## 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 obtain a criminal background check and disclose information related to any prior felony or misdemeanor, crimes 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.

## Bachelor of Science in Nursing (BSN) Completion Options

Graduates of the Associate of Applied Science degree in Nursing are prepared to obtain licensure and employment as a registered nurse. Graduates are also prepared to continue their education and obtain a bachelor's degree in nursing. A number of colleges and universities have designed baccalaureate nursing completion programs for associate degree prepared registered nurses. In addition to Clark State's Dual Enrollment option with Urbana University, the program has strong articulation agreements with a number of other BSN completion programs. Students are encouraged to refer to the transfer section of the catalog and their academic advisor for more information about these programs.

### Course # Course Title Credit Hours

#### Summer (Quarters)

MST 105	Medical Terminology	3
BIO 121	Anatomy and Physiology I *	4
ENG 111	English I	4
ITS 103	Information Technology Basics	3
COM 111	Interpersonal Communication	3
NUR 114	Dosage Calculations I	1

#### Fall (Quarters)

NUR 110	Nursing Academic Success Seminar	1
NUR 170	Nursing I	6
BIO 122	Anatomy and Physiology II *	4
ENG 112	English II	4
PSY 111	Psychology I	3

#### Winter (Quarters)

NUR 200	Service Learning Project **	1
NUR 171	Nursing II	6
BIO 123	Anatomy and Physiology III *	4
PSY 223	Lifespan Human Growth and Development	*5

#### Spring (Quarters)

NUR 120	Pharmacology	3
NUR 172	Nursing III	8
NUR 290B	Bridge - Pediatric Nursing	2
BIO 131	Microbiology *	4

#### Fall (Semesters)

NUR 1174	Behavioral Health Nursing	4
NUR 2274	Maternal-Newborn Nursing	3
NUR 2276	Adult Nursing II	5

#### Spring (Semesters)

NUR 2278	Adult Nursing III	7
NUR 2279	Nursing Directed Practice/Seminar	2
NUR 2280	Nursing Review	1
SOC 1110	Introduction to Sociology	3
Total Credit Hours (Quarters)		69
Total Credit Hours (Semesters)		25

\* BIO 121, BIO 122, BIO 123, BIO 131 and PSY 223 must be successfully completed within ten years of entry into the first clinical nursing course.

If older than ten years, the course must be repeated.

\*\* 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 (630)

The nursing courses are 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 part-time 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.
- Demonstrate behaviors that reflect respect for and sensitivity to individual differences while working with 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. (Online offering is dependent on sufficient demand for this 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.

### 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 complete all petitioning prerequisites and file a petition online at [http://www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php) 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).
- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 071 and/or CPE 072)
- Students are excused from taking the reading and writing placement tests 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 the ACT or SAT exam within the last three years and received mathematics scores of 22 on the ACT or 560 on the SAT or 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 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 and current state-tested nurse aide credentials or have satisfactorily completed MST 181 or its equivalent within the past two years. Additional information about these requirements can be obtained from academic and faculty advisors. Students must also meet health requirements, show proof of health insurance and meet criminal background check requirements before they enter the first clinical nursing course. Second-year students must update health requirements prior to taking clinical courses. Additional information about these clinical requirements is provided at the nursing program orientation. Students will be billed for liability insurance for each year of clinical courses.

### Progression Requirements

In order to enroll in NUR 170 and progress to subsequent clinical nursing course, students must have successfully completed all pre-requisite courses with a grade of C or better.

### Graduation Requirements

To qualify for an associate degree, Registered Nursing students must have a cumulative grade point average of 2.0 and have a grade of C or better in all courses in the curriculum.

### 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 obtain a criminal background check and disclose information related to any prior felony or misdemeanor, crimes 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.

### Bachelor of Science in Nursing (BSN) Completion Options

Graduates of the Associate of Applied Science degree in Nursing are prepared to obtain licensure and employment as a registered nurse. Graduates are also prepared to continue their education and obtain a bachelor's degree in nursing. A number of colleges and universities have designed baccalaureate nursing completion programs for associate degree prepared registered nurses. Clark State has strong articulation agreements with a number of BSN completion programs.

Students should refer to the transfer section of the catalog and their academic advisor for more information.

Course #	Course Title	Credit Hours
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**Fall (Quarters)**

ENG 111	English I	4
ITS 103	Information Technology Basics	3

**Winter (Quarters)**

ENG 112	English II	4
PSY 111	Psychology I	3

**Spring (Quarters)**

BIO 131	Microbiology *	4
MST 105	Medical Terminology	3

**Summer (Quarters)**

SOC 110	Sociology	3
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**Fall (Semesters)**

BIO 2121	Anatomy and Physiology I *	4
PSY 2223	Lifespan Human Growth and Development *	3

**Spring (Semesters)**

BIO 2122	Anatomy and Physiology II *	4
COM 1170	Small Group Communication	3

**Fall (Semesters)**

NUR 1120	Pharmacology and Drug Calculations	3
NUR 1170	Basic Nursing Concepts	7

**Spring (Semesters)**

NUR 1172	Adult Nursing I	7
NUR 1174	Behavioral Health Nursing	4

**Fall (Semesters)**

NUR 2272	Children-Family Nursing	3
NUR 2274	Maternal-Newborn Nursing	3
NUR 2276	Adult Nursing II	5

**Spring (Semesters)**

NUR 2278	Adult Nursing III	7
NUR 2279	Nursing Directed Practice/Seminar	2
NUR 2280	Nursing Review	1

Total Credit Hours (Quarters) 24

Total Credit Hours (Semesters) 56

\* BIO 2121, BIO 2122, BIO 1131 and PSY 2223 or the equivalent must be successfully completed within ten years of entry into the first clinical nursing course. If older than ten years, the course must be repeated.

## Registered Nursing-LPN to RN Transition (640)

The LPN to RN option offers a modified sequence of nursing courses 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.
- Demonstrate behaviors that reflect respect for and sensitivity to individual differences while working with 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. (Online offering is dependent on sufficient demand for this 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.

### 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. 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 Petition 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).

- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory courses (CPE 071 and/or CPE 072)
- Students are excused from taking the reading and writing placement tests 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/algebra placement test if they have taken the ACT or SAT exam within the last three years and received mathematics scores of 22 on the ACT or 560 on the SAT or 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 the equivalent) with a grade of C or better. This prerequisite is waived for those students who have completed BIO 121, 122, and 123, the Anatomy & Physiology sequence, or the equivalent with a grade of C or better within the past five years.
- A cumulative grade point average of 2.0 or greater in the required courses in the curriculum.

Requirements for admission to the clinical nursing courses include:

- Current valid Ohio license to practice as a practical nurse (LPN).
- Recent practice as a LPN in Ohio. (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 1175, the transition nursing course.
- Completion of the prerequisite course requirements for NUR 1175, the transition nursing course, with a C or better.

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

### Clinical Requirements

Transition students must meet health requirements, show proof of health insurance and meet 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.

### Progression Requirements

In order to progress to the next clinical nursing course, students must have successfully completed all pre-requisite courses with a grade of C or better.

### Graduation Requirements

To qualify for an associate degree, Transition students must have a cumulative grade point average (GPA) of 2.0 and have a grade of C or better in all courses in the curriculum.

### 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 complete a criminal background check and disclose information related to any prior felony or misdemeanor, 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.

### Bachelor of Science in Nursing (BSN) Completion Options

Graduates of the Associate of Applied Science degree in Nursing are prepared to obtain licensure and employment as a registered nurse. Graduates are also prepared to continue their education and obtain a bachelor's degree in nursing. A number of colleges and universities have designed baccalaureate nursing completion programs for associate degree prepared registered nurses. Clark State has strong articulation agreements with a number of BSN completion programs. Students should refer to the transfer section of the catalog and their academic advisor for more information.

Course #	Course Title	Credit Hours
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#### Winter (Quarters)

NUR 114	Dosage Calculations I	1
BIO 121	Anatomy and Physiology I *	4
ENG 111	English I	4
ITS 103	Information Technology Basics	3
PSY 111	Psychology I	3

#### Spring (Quarters)

BIO 122	Anatomy and Physiology II *	4
BIO 131	Microbiology *	4
ENG 112	English II	4

#### Summer (Quarters)

BIO 123	Anatomy and Physiology III *	4
PSY 223	Lifespan Human Growth and Development *	5

#### Fall (Semesters)

NUR 1175	LPN to RN Transition	3
NUR 1176	Adult Nursing for LPNs	2
NUR 1174	Behavioral Health Nursing	4
NUR 1190	Associate Degree Equivalency for LPN Outcomes **13	13
COM 1110	Interpersonal Communications	3

#### Spring (Semesters)

NUR 2272	Children-Family Nursing	3
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NUR 2274	Maternal-Newborn Nursing	3
NUR 2276	Adult Nursing II	5

### Fall (Semesters)

NUR 2278	Adult Nursing III	7
NUR 2279	Nursing Directed Practice/Seminar	2
NUR 2280	Nursing Review	1
SOC 1110	Introduction to Sociology	3
Total Credit Hours (Quarters)		36
Total Credit Hours (Semesters)		49

\* BIO 2121, BIO 2122, BIO 1131 and PSY 2223 or equivalent courses must be successfully completed within ten years of entry into the first clinical nursing course. If older than ten years, the course must be repeated.

\*\* Recognition of competency achievement equivalent to 13 nursing semester credit hours will be given (posted on the transcript as NUR 1910 after successful completion of NUR 1175 and NUR 1176.

## Registered Nursing-Paramedic to RN Transition (680)

The program requirements for this degree are the same as the College's standard two-year Registered Nurse degree except that the nursing sequence is modified to align with the educational needs of paramedics. 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 health care providers.
- Demonstrate behaviors that reflect respect for and sensitivity to individual differences while working with 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

The non-nursing courses in the program are available in an online/hybrid as well as traditional format. The classroom components of the nursing courses are offered in online or hybrid formats. The on-site lectures and labs for the hybrid nursing courses are scheduled at Clark State's Greene Center campus. Students enrolled in online nursing courses are required to take some on-line exams in a proctored environment. Students are required to attend assigned clinical learning experiences.

### 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. Students must petition for admission. All applicants are considered for admission by the date their petition request was granted and the date they complete the pre-requisite courses/requirements.

The petition 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).
- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course(s) (CPE 071 and/or CPE 071).
- Students are excused from taking the reading and writing placement tests 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/algebra placement test if they have taken the ACT or SAT exam within the last three years and received mathematics scores of 22 on the ACT or 560 on the SAT or 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 the equivalent) with a grade of C or better. This prerequisite is waived for those students who have completed BIO 121, 122, and 123, the Anatomy & Physiology sequence, or the equivalent with a grade of C or better within the past five years.
- A cumulative grade point average of 2.0 or greater in the required courses in the curriculum.

Requirements for admission to the clinical nursing courses include:

- Current Ohio certification as a paramedic.
- Recent practice as a paramedic in Ohio. (Minimum of three years within the past five years.)

- Completion of the prerequisite course requirements for NUR 185, the nursing transition course, with a C or better.

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

### Clinical Requirements

Within the two years prior to entering their first clinical nursing course (NUR 1178), students must successfully complete MST 181, Nurse Aide Training course or demonstrate proficiency of the knowledge and skills taught in that course. Transition students must also meet health requirements, show proof of health insurance and meet criminal background check requirements before entering the first clinical nursing course. Specific information will be provided upon acceptance into the clinical nursing courses. Students will be billed for liability insurance for the clinical courses.

### Progression Requirements

In order to progress to the next clinical nursing course, students must have successfully completed all pre-requisite courses with a grade of C or better.

### Graduation Requirements

To qualify for an associate degree, Transition students must have a cumulative grade point average (GPA) of 2.0 and have a grade of C or better in all courses in the curriculum.

### 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 complete a criminal background check and disclose information related to any prior felony or misdemeanor, 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.

### Bachelor of Science in Nursing (BSN) Completion Options

Students enrolled in the Associate of Applied Science degree in Nursing are prepared to obtain licensure and employment as a registered nurse. Graduates are also prepared to continue their education and obtain a bachelor's degree in nursing. A number of colleges and universities have designed baccalaureate nursing completion programs for associate degree prepared registered nurses. Students should refer to the transfer section of the catalog and your academic advisor for more information.

### Course # Course Title Credit Hours

#### Winter (Quarters)

BIO 121	Anatomy and Physiology I *	4
ENG 111	English I	4
PSY 111	Psychology I	3
ITS 103	Information Technology Basics	3

### Spring (Quarters)

BIO 122	Anatomy and Physiology II*	4
ENG 112	English II	4
BIO 131	Microbiology *	4

### Summer (Quarters)

NUR 114	Dosage Calculations	1
NUR 120	Pharmacology	3
BIO 123	Anatomy and Physiology III	4

### Fall (Semesters)

NUR 1174	Behavioral Health Nursing	4
NUR 1177	Paramedic to RN Transition	2.5
NUR 1178	Adult Nursing for Paramedics	4.5
PSY 2223	Lifespan Human Growth and Development*	3

### Spring (Semesters)

NUR 2272	Children-Family Nursing	3
NUR 2274	Maternal-Newborn Nursing	3
NUR 2276	Adult Nursing II	5
COM 1170	Small Group Communication	3

### Fall (Semesters)

NUR 2278	Adult Nursing III	7
NUR 2279	Nursing Directed Practice/Seminar	2
NUR 2280	Nursing Review	1
SOC 1110	Introduction to Sociology	3

Total Credit Hours (Quarters) 34

Total Credit Hours (Semesters) 41

\* BIO 121, BIO 122, BIO 123, BIO 131 and PSY 2223 or their equivalents must be successfully completed within ten years of entry into the first clinical nursing course. If older than ten years, the course must be repeated.



# Health Certificates

## Electrocardiography Departmental Certificate (655)

This certificate/area of specialization is focused on providing students with the basic knowledge and skills needed to perform an electrocardiogram (ECG) and recognize normal and common abnormal cardiac rhythms. 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. This certificate is also available as a weekend college offering at the Greene Center campus.

Course #	Course Title	Credit Hours
MST 105	Medical Terminology	3
BIO 105	Fundamentals of Anatomy and Physiology	4
EMS 171	Basic Life Support: CPR	1
MST 171	Introduction to Electrocardiography	3
	Total Credit Hours (Quarters)	11

## Medical Assisting Certificate (675)

Medical Assistants perform clinical and administrative tasks in physicians and other health practitioners' offices and outpatient facilities. Specific duties vary from office to office depending on the location and size of the practice and the practitioner's specialty. Administrative duties include answering telephones, greeting patients, scheduling appointments and laboratory services, updating and filing patients' medical records, filling out insurance forms and handling billing and bookkeeping. Clinical duties include taking medical histories and recording vital signs, explaining procedures to patients, preparing patients for and assisting the physician during examinations, collecting and preparing laboratory specimens, sterilizing medical instruments, instructing patients on medications and special diets, preparing and administering medications as directed by a physician, drawing blood, taking electrocardiograms, removing sutures and changing dressings.

The primary goal of the Medical Assisting Certificate program is to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Completion of this certificate will provide the student with the administrative and clinical skills needed for entry-level positions as a medical assistant. Students can fully apply this one-year certificate toward the completion of the Medical Assisting associate degree.

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 requirements, will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

### Learning Outcomes

Upon completion of the Medical Assisting certificate program, a graduate will be able to:

- Coordinate and facilitate patient care throughout the ambulatory care setting.
- Communicate effectively with patients, families and members of the health care team.
- Perform clerical functions necessary to maintain medical office appointments, transcription and medical records.
- Apply basic billing, collection, insurance, coding, and manage care guidelines needed to maintain office bookkeeping.
- Collect, transport and process specimens.
- Obtain vital signs.
- Perform, assist, and follow up on diagnostic tests and procedures.
- Provide patient care.
- Instruct patients regarding health maintenance and disease prevention.
- Apply legal and ethical concepts.
- Apply privacy and confidentiality practices.

### Scholastic Preparation and Requirements

Entry into the Medical Assisting program is on a space limited basis. Students must petition for admission to the program and are considered for admission by the date in which they complete all petitioning requirements and file their petition online at [www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php). To be eligible to petition to the Medical Assisting program, students must have:

- A minimum COMPASS reading score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE061 and/or CPE 062).
- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 071 and/or CPE 072)
- Students are excused from taking the reading and writing placement tests if they have taken an ACT or SAT exam within the past 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 38 on the prealgebra and 29 on the algebra tests. 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/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 or have taken and received a "C" or better in a college-level math course within the past ten years.
- A minimum cumulative grade point average (GPA) of 2.0 or greater in the required courses in the curriculum.

Students are admitted into the Medical Assisting program's technical (MAS) course sequence twice a year in winter and spring quarters. Admission letters for winter quarter entry will be mailed in October. Acceptance letters for spring quarter entry will be mailed in February. Students will continue to be granted admission if space is available up until the start of the quarter. Students must maintain an overall C or 2.0 grade point average (GPA) for the courses in the Medical Assisting curriculum in order to be enrolled in MAS courses. In order to progress through the program, students must maintain an overall GPA of 2.0 and a grade of C or better in all MAS courses. Admitted students who stop out must complete and submit a request for reinstatement into the MAS courses. Students must have an overall GPA of 2.0 to be considered for reinstatement and requests are then granted on a space available basis.

### Health and Directed Practice Requirements

All Medical Assisting Certificate students will complete 250 hours of directed practice at the end of the program. Directed practice course hours may only be available during the daytime hours.

All Medical Assisting students must meet health requirements and have current Basic Life Support (BLS)/professional cardiopulmonary resuscitation (CPR) certification prior to entering the directed practice 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 their second quarter in the Medical Assisting program.

### Liability Insurance

Students will be billed for liability insurance for the directed practice courses.

### Graduation Requirements

Students must pass all the required courses, have a cumulative grade point average (GPA) of 2.0 and must have a C as a minimum grade in BIO 105 and all MAS, MST and MLT courses.

### Certification

The Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Therefore graduates of the program are eligible to obtain a national certification exam to obtain either their Certified Medical Assistant (CMA) or Registered Medical Assisting (RMA) certification credential.

### Quarters to Semesters Transition

Clark State will be moving from a quarters to a semesters calendar in fall quarter 2012. Full-time students who are accepted to start their medical assisting technical (MAS) courses in winter quarter

of 2012 will complete the program prior to fall 2012 provided they follow the curriculum plan listed below. Students who are accepted to start their medical assisting technical (MAS) courses in spring quarter of 2012 will complete their courses on a semester calendar. These students should contact their academic or faculty advisor for a Medical Assisting certificate program spring start advising plan.

### Course # Course Title Credit Hours

#### Fall (Quarters)

BIO 105	Fundamentals of Anatomy and Physiology	4
ENG 111	English I	4
ITS 12W	Beginning Word Processing	1
MST 101	Introduction to Health Care Delivery	3
MST 105	Medical Terminology	3

#### Winter (Quarters)

MAS 102	Medical Law and Ethics	2
MAS 103	Medical Administrative Office I	3
MAS 104	Exam Room Procedures I	4
ITS 12S	Beginning Spreadsheet	1
MST 171	Introduction to Electrocardiography	3
PSY 111	Psychology I	3

#### Spring (Quarters)

MAS 113	Medical Administrative Office II	3
MAS 114	Exam Room Procedures II	4
MAS 115	Laboratory Procedures for the Medical Office	2
MAS 116	Pharmacology for the Medical Office	2
MLT 116	Phlebotomy	2
MLT 117	Phlebotomy Laboratory	2

#### Summer (Quarters)

MAS 117	Clinical Directed Practice	5
MAS 118	Clinical Perspectives Seminar	1

Total Credit Hours (Quarters)	52
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# Multi-Skilled Health Care Certificate (655)

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 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. This certificate is also available as a weekend college offering at the Greene Center campus.

## Non-academic requirements

- 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.
- Will 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.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

MST 101	Introduction to Health Care Delivery	3
MST 104	Foundations of Client Care	3
MST 105	Medical Terminology	3
EMS 171	Basic Life Support: CPR	1
--	Technical Elective(s) *	6

### Winter (Quarters)

BIO 105	Fundamentals of Anatomy and Physiology	4
ENG 111	English I	4
PSY 111	Psychology I	3
ITS 103	Information Technology Basics	3
--	Technical Elective(s) *	4

### Spring (Quarters)

SWK 136	Affective Education **	4
--	Basic or Humanities/Social Science Elective ***	3
--	Basic or Humanities/Social Science Elective ***	3
--	Technical Elective(s) *	8
Total Credit Hours (Quarters)		52

\* 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)

## Medical Office

- OAD 135 Office Procedures (4 credits)
- OAD 140 Records Management (3 credits)

## Other Technical Electives

- EBE 100 Employability Skills (2 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 (pre- and co-requisite requirements must be met):

- BIO 131 Microbiology (4 credits)
- PHL 200 Critical Thinking (3 credits)
- PHL 205 Deductive Logic (3 credits)
- PSY 112 Psychology II (3 credits)
- SOC 110 Sociology (3 credits)
- SOC 250 Sociology of Poverty: Feminization of Poverty (3 credits)
- SPN 100 Survival Spanish I (3 credits)
- SPN 102 Survival 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 230 Abnormal Psychology\*\*\*\* (3 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.

## Nurse Aide Departmental Certificate (655)

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 and a criminal background check 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 take 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. This certificate is also available as a weekend college offering at the Greene Center campus.

Course #	Course Title	Credit Hours
MST 181	Nurse Aide Training Nurse Aide Training	6
	Total Credit Hours (Quarters)	6

## Patient Care Technician Departmental Certificate (655)

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. This certificate is also available as a weekend college offering at the Greene Center campus.

Course #	Course Title	Credit Hours
MST 101	Introduction to Health Care Delivery	3
ITS 103	Information Technology Basics	3
EMS 171	Basic Life Support: CPR	1
MST 181	Nurse Aide Training *	6
MST 105	Medical Terminology	3
BIO 105	Fundamentals of Anatomy and Physiology	4
MST 182	Patient Care Technician *	4
	Total Credit Hours (Quarters)	24

\*Students must complete specific health requirements and obtain a criminal background check at their own expense prior to participating in clinical. Students will be billed for liability insurance when registering for the course.

## Phlebotomy Departmental Certificate (655)

This area of specialization provides students with the knowledge and skill to collect blood samples by venipuncture and skin puncture. Coursework does NOT include a directed practice or practicum course. 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. This certificate is also available as a weekend college offering at the Greene Center campus.

Course #	Course Title	Credit Hours
MST 105	Medical Terminology *	3
MLT 116	Phlebotomy	2
MLT 117	Phlebotomy Laboratory	2
Total Credit Hours (Quarters)		7

\*Students accepted to or enrolled in the Medical Laboratory Technology associate degree program should take MLT 101 and MLT 102 instead of MST 105.

## Practical Nursing Certificate (635)

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 online at [http://www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php) to be placed on the waiting list.

To be eligible to petition to the Practical 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).
- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better, the appropriate college preparatory/course (CPE 071 and/or CPE 072).
- Students are excused from taking the reading and writing placement tests if they have taken an ACT or SAT exam within the past 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 if they have taken the ACT or SAT exam within the last three years and received mathematics scores of 22 on the ACT or 560 on the SAT or received a C or better in a college-level math course within the past three years.
- A GPA of greater than or equal to 2.0 in the courses pertaining to the identified nursing major.

### 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 or misdemeanor, 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

Prior to entering the first clinical nursing course (LPN 160), students must have current professional CPR provider status and must also have current state-tested nurse aide credentials and/or have satisfactorily completed MST 181 or its equivalent within the past two years. Please contact your nursing advisor for further information about these requirements.

Practical Nursing students must also meet health and criminal background check requirements and have health insurance before they enter the first clinical nursing course. Specific information will be presented at orientation after acceptance into the Practical Nursing program.

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

### Progression and Graduation Requirements

To progress in the program and 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.

### Quarters to Semester Transition

ClarkState will be moving from a quarter to a semester calendar with fall quarter 2012. Students who enter the nursing courses in fall of 2011 should follow the quarters curriculum plan published in the 2010-2011 catalog. Students who enter the nursing courses in fall of 2012 should follow the combined quarters and semester calendar curriculum plan that follows.

Course #	Course Title	Credit Hours
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#### Summer (Quarters)

MST 105	Medical Terminology	3
BIO 105	Fundamentals of Anatomy and Physiology *	4
ENG 111	English I	4

#### Fall (Semesters)

LPN 1101	Nursing Fundamentals	9
LPN 1201	Disease Process and Diet Therapy	4
LPN 1301	Pharmacology	3
PSY 1111	Introduction to Psychology	3

#### Spring (Semesters)

LPN 1401	Nursing Care of Adults	9
LPN 1501	Nursing Care of Women, Infants, & Children	5
PSY 2223	Lifespan Human Growth and Development *	3
Total Credit Hours (Quarters)		11
Total Credit Hours (Semesters)		36

\* BIO 105 and PSY 2223 must be successfully completed within ten years of entry into the first LPN course. If older than ten years, the course must be repeated. A grade of C or better is required for successful completion of BIO 105.

## Practical Nursing Certificate - Evening Weekend (635)

The Practical Nursing program also offers an evening-weekend option. Classes in this option are offered via web conferencing modality. This option provides 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, when they are required to enroll in 14 credit hours 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.

### 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 online at [http://www.clarkstate.edu/petitioning\\_process.php](http://www.clarkstate.edu/petitioning_process.php) to be placed on the waiting list.

To be eligible to petition to the Practical 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).

- A minimum COMPASS writing score of 70. If the student does not obtain a 70, he/she is required to take and pass with a grade of C or better the appropriate college preparatory course (CPE 071 and/or CPE 072).
- Students are excused from taking the reading and writing placement tests if they have taken an ACT or SAT exam within the past 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 if they have taken the ACT or SAT exam within the last three years and received mathematics scores of 22 on the ACT or 560 on the SAT or received a C or better in a college-level math course within the past three years.
- A GPA of greater than or equal to 2.0 in the courses pertaining to the identified nursing major.

### 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 obtain a criminal background check and disclose information related to any prior felony or misdemeanor, 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

Prior to entering the first clinical nursing course (LPN 160), students must have current professional CPR provider status and must also have current state-tested nurse aide credentials and/or have satisfactorily completed MST 181 or its equivalent within the past two years. Please contact your nursing advisor for further information about these requirements.

Practical Nursing students must also meet health and criminal background check requirements and have health insurance before they enter the first clinical nursing course. Specific information will be presented at orientation after acceptance into the Practical Nursing program.

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

### Progression and Graduation Requirements

To progress in the program and qualify for a certificate in Practical Nursing, students must have a cumulative grade point average (GPA) of 2.0 and must have a C as a minimum grade in BIO 105 and all LPN courses.

### Quarters to Semester Transition

Clark State will be moving from a quarter to a semester calendar with fall quarter 2012. Students who enter the nursing courses in summer of 2011 should follow the quarters curriculum plan published in the 2010-2011 catalog. Students who are accepted to the program for winter quarter 2012 will enter the nursing courses in fall semester of 2012 and should follow the combined quarters and semesters calendar curriculum plan that follows.

Course #	Course Title	Credit Hours
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#### Winter (Quarters)

MST 105	Medical Terminology	3
ENG 111	English I	4

#### Spring (Quarters)

BIO 105	Fundamentals of Anatomy and Physiology *	4
PSY 111	Psychology I	3

#### Summer (Quarters)

PSY 223	Lifespan Human Growth and Development *	5
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#### Fall (Semesters)

LPN 1201	Disease Process and Diet Therapy	4
LPN 1301	Pharmacology	3

#### Spring (Semesters)

LPN 1101	Nursing Fundamentals	9
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#### Summer (Semesters)

LPN 1501	Nursing Care of Women, Infants, & Children	5
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#### Fall (Semesters)

LPN 1401	Nursing Care of Adults	9
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Total Credit Hours (Quarters)	19
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Total Credit Hours (Semesters)	30
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\* BIO 105 and PSY 223 must be successfully completed within ten years of entry into the first LPN course. If older than ten years, the course must be repeated. A grade of C or better is required for successful completion of BIO 105.

# Law Enforcement

## Corrections (250)

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 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.

### 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 can be found in the Clark State catalog.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

CRJ 100	Introduction to Criminal Justice	4
CRJ 116	Systems Approach to Computer Technology	3
COR 100	Introduction to Corrections	4
ENG 111	English I	4

#### Winter (Quarters)

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

#### Spring (Quarters)

CRJ 125	Community Policing	3
COM 111	Interpersonal Communication	3
COR 130	Adult/Juvenile Corrections	4
SWK 105	Chemical Dependency I: Pharm/Physiology of Psychoactive Substances	4
SOC 110	Sociology	3

#### Fall (Semesters)

COR 2280	Jail Practicum	3
CRJ 2216	Community Policing	3
CRJ 2228	Criminal Investigation	3
PSY 2230	Abnormal Psychology	3
SOC 2220	Racial and Cultural Minorities	3

#### Spring (Semesters)

COR 2285	Prison Practicum	3
CRJ 2235	Social Justice	3
CRJ 2240	Criminal Law	3
PHL 2400	Philosophy of World Religions	3
PLS 2200	Constitutional Law	3

Total Credit Hours (Quarters) 55

Total Credit Hours (Semesters) 30



# Criminal Justice Technology (220)

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.

Students completing the Clark State AAS degree in Criminal Justice, with additional courses of COR 100 and either COR 281 or 282, may transfer into the BS in Criminal Justice Leadership at Urbana University. Sixty semester credits (equivalent to 90 quarter credits) at Urbana are required to complete the BS degree.

## 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 e-mail.
- 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 department.

## 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 can be found in the Clark State catalog.

Course #	Course Title	Credit Hours
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### Fall (Quarters)

CRJ 100	Introduction to Criminal Justice	4
PHO 100	Basic Photography for Law Enforcement	3
CRJ 112	Traffic Management	3
CRJ 116	Systems Approach to Computer Technology	3
PSY 111	Psychology I	3

### Winter (Quarters)

CRJ 118	Forensic Photography	3
CRJ 120	Juvenile Procedures	3
CRJ 123	Patrol Operations	3
ENG 111	English I	4
MTH 106	Business Mathematics	3

### Spring (Quarters)

CRJ 125	Community Policing	3
COM 111	Interpersonal Communication	or
COM 121	Public Speaking I	3
ENG 112	English II	4
SOC 110	Sociology	3
SWK 105	Chemical Dependency I: Pharm/Physiology of Psychoactive Substances	4

### Fall (Semesters)

CRJ 2201	Police Administration	3
CRJ 2216	Community Policing	3
CRJ 2225	Forensic Science I	3
CRJ 2228	Criminal Investigation	3
CRJ 1150	Community Resources	3
PSY 2230	Abnormal Psychology	3

### Spring (Quarters)

CRJ 2230	Forensic Science II	3
CRJ 2235	Social Justice	3
CRJ 2240	Criminal Law	3
CRJ 2290	Practicum	3
PLS 2200	Constitutional Law	3

Total Credit Hours (Quarters) 49

Total Credit Hours (Semesters) 33

Note: See Criminal Justice Coordinator for additional information on technical electives.

# Law Enforcement Certificates

## Basic Peace Officer Academy (802)

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

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. Additional Information and Enrollment Form

Course #	Course Title	Credit Hours
CRJ 283	Basic Law Enforcement I	13
CRJ 284	Basic Law Enforcement II	12
	Total Credit Hours (Quarters)	25

# Social Services

## Social Services Technology (720)

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 420 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.

### 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 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.

### Liability Insurance

Students will be billed for liability insurance for the year of practicum courses.

### Graduation Requirements

Graduates must obtain a C or better in all SWK courses and 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.

### Registration as a Social Work Assistant

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. Graduates are required to complete a criminal background check when applying for the Social Work Assistant Certificate and when applying for positions in social work.

### Humanities/Social Science Electives

A complete listing of humanities and social science electives can be found in the Clark State catalog.

### Transfer Options

Students enrolled in the Social Services Technology Associate of Applied Science degree are preparing for employment upon graduation from the program. However, many of these students are also interested in completing a baccalaureate degree in Social Work. Some colleges and universities have designed baccalaureate completion programs for students who have completed their associate degree in social work. Local programs include:

- Capital University
- Wright State University

See the transfer section of the catalog and your academic advisor for more information.

Course #	Course Title	Credit Hours
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#### Fall (Quarters)

SWK 100	Introduction to Social Welfare and Social Work *	4
SWK 105	Chemical Dependency I: Pharm/Physiology of Psychoactive Substances	4
ENG 111	English I *	4
ITS 103	Information Technology Basics	3
PSY 111	Psychology I	3

#### Winter (Quarters)

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 (Quarters)

SWK 136	Affective Education	4
BIO 110	Fundamentals of Human Biology	4
ENG 223	Technical Report Writing	3
--	Humanities (GA)	3

#### Fall (Semesters)

SWK 2218	Social Work and Mental Health	3
SWK 2230	Introduction to Social Welfare	3
SWK 2260	Multicultural Competence in a Diverse World	3
SWK 2271	Social Services Practicum I **	2
SWK 2291	Social Services Seminar I **	1
SWK 290B	Bridge Course (SWK 236/238)	3
SWK 2205	Chemical Dependency II: Assessment, Diagnosis and Treatment Strategies	3

#### Spring (Semesters)

SWK 2232	Generalist Practice with Families	3
SWK 2272	Social Services Practicum II	2
SWK 2292	Social Services Seminar II	1
SWK 2215	Chemical Dependency III: Co-Occurring Disorders of Addiction and Mental Health	3
PSY 2230	Abnormal Psychology	3
--	Humanities/Social Science Elective	3
Total Credit Hours (Quarters)		49
Total Credit Hours (Semesters)		33

\* ENG 111 and SWK 100 MUST be completed with a C or better before enrolling in additional social service courses (SWK).

\*\* SWK 2271 (SWK 271) Social Service Practicum I and SWK 2291 (SWK 291) Social Service Seminar I must be taken together. Students must attend Practicum orientation to be admitted into SWK 2271 (271), along with written approval from the field placement instructor.

# Social Services Certificates

## Chemical Dependency Departmental Certificate (720)

This certificate is a recommended addition to the resume of anyone working in service fields including health care, criminal justice, correction, and social services. It recognizes that an individual's scope of knowledge and practice includes specific understanding of the pharmacology, physiology, and treatment processes for substance abuse and addictions concerns seen daily in these fields. For those interested in working in the field of addictions treatment, this certificate is focused on providing clock hours in the global function domains of practice required by the Ohio Chemical Dependency Professionals Board under the Ohio Department of Alcohol and Drug Addiction Services (ODADAS) that meets the eligibility standards to apply for the Chemical Dependency Counselor Assistant (CDCA) state certification. The certificate will be issued for earning a minimum of 90 clock hours (9 credit hours). It will state the number of clock hours earned through taking the various courses listed below.

Course #	Course Title	Credit Hours
SWK 105	Chemical Dependency I: Pharm/Physiology of Psychoactive Substances	4
SWK 205	Chemical Dependency II: Counseling Techniques	4
SWK 217	Chemical Dependency III: Special Populations	4
	Total Credit Hours (Quarters)	12

# Theatre Arts

## Theatre Arts - Option One: Performance (311)

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 performing arts concentration that focuses on acting, voice, theatre history, etc. Performance students will most likely transfer to university programs with a performance focus. The second option is an associate of arts degree with a technical theatre concentration that focuses on stagecraft, lighting and sound. Students who enroll in this program should be prepared for entry-level technical careers at the end of the two years of full-time study, although some students may choose to transfer to university programs with a technical focus. Students in both programs will be involved with theatrical productions produced by the Theatre Arts Program held in either the Turner Studio Theatre or Kuss Auditorium. Additionally, students may also have the opportunity to work backstage on visiting touring productions at the Performing Arts Center.

In order to finish a theatre arts degree 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 advisor for help planning their schedules.

### Learning Outcomes

Upon completion of an associate degree in Performance and/or Technical Theatre, a graduate will be able to:

- Demonstrate auditioning and performance skills and professionalism. (Performance only).
- Demonstrate theatre technology equipment skills including analyzing design packages and plots. (Technical only).
- Demonstrate an understanding of the roles of all theatre personnel and use correct theatre terminology.
- Analyze a play's action, structure, character, themes and production values.
- Differentiate among major periods in theatre history.

It is mandatory for performance majors to audition for all Theatre Program productions, however, they are only required to perform in three shows during their years of study.

**Course # Course Title Credit Hours**

**Fall (Quarters)**

THE 130	Introduction to Theatre	3
THE 133	Script Analysis	3
ENG 111	English I	4
PSY 111	Psychology I	3
HST 111	Western Civilization To the 14th Century	3
THE 150	Theatre Laboratory I	1

**Winter (Quarters)**

THE 202	Acting I	4
ENG 112	English II	4
HST 112	Western Civilization from the 14th through 18th Centuries	3
PSY 230	Abnormal Psychology	3
SOC 110	Sociology	3
THE 150	Theatre Laboratory I	1

**Spring (Quarters)**

THE 203	Acting II	4
THE 107	Speech & Voice for Actor	4
THE 140	Movement for Actors	3
ENG 225	Creative Writing	or
ENG 245	Drama	3
HST 113	Western Civilization from 19th Century to the Present	3
THE 150	Theatre Laboratory I	1

**Fall (Quarters)**

THE 204	Acting III	4
THE 241	Theatre History I	3
MTH 105	Mathematics and Today's World	or
MTH 121	College Algebra I	3
--	*Natural Science Course	5
THE 150	Theatre Laboratory I	1

**Winter (Quarters)**

THE 242	Theatre History II	3
THE 166	Theatre Arts Tour	4
RST -	**Regional Studies course	3
ITS 103	Information Technology Basics	3
--	*Natural Science Course	5
THE 150	Theatre Laboratory I	1

**Spring (Quarters)**

THE 243	Theatre History III	3
THE 280	Directing I	4
--	*Natural Science Course	5
GEO 220	World Regional Geography	or
SOC 220	Comparing Cultures	3
HUM 299	Capstone Seminar	3
THE 150	Theatre Laboratory I	1
Total Credit Hours (Quarters)		107

\* Natural Science Course options:

**Option 1** Take three courses, each from a different science area. (Possible classes include BIO 110, BIO 140, CHM 110, CHM 115, CHM 116, GLG 130, GLG 114, PHY 105, PHY 110 and PHY 120).

**Option 2** Take a three-course sequence in Biology, Chemistry, Geology or Physics. (Possible sequences include BIO 121-123, BIO 141-143, BIO 151-153, CHM 121-123, GLG 131-133, PHY 111-113, PHY 250-252).

\*\* Regional Studies Course Choose from: Regional Studies: 262 North India Regional Studies: 270 Africa, or Regional Studies: 280 Latin America

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a 2 semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter based and semester based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

**Theatre Arts - Option Two: Technical Theatre (315)**

It is mandatory for technical theatre majors to work on at least three shows during their years of study. Roles for technical theatre majors include, but are not limited to, Stage Management, Light or Sound Board Operator and Run Crew.

**Course # Course Title Credit Hours**

**Fall (Quarters)**

THE 130	Introduction to Theatre	3
THE 111	Stagecraft I	4
THE 133	Script Analysis	3
ENG 111	English I	4
HST 111	Western Civilization To the 14th Century	3
THE 150	Theatre Laboratory I	1

**Winter (Quarters)**

THE 112	Stagecraft II	4
THE 210	Lighting I	4
ENG 112	English II	4
HST 112	Western Civilization from the 14th through 18th Centuries	3
PSY 111	Psychology I	3
THE 150	Theatre Laboratory I	1

**Spring (Quarters)**

THE 160	Acting for the Non-major	4
THE 211	Lighting II	4
ENG 225	Creative Writing	or
ENG 245	Drama	3
HST 113	Western Civilization from 19th Century to the Present	3
SOC 110	Sociology	3
THE 150	Theatre Laboratory I	1

**Fall (Quarters)**

THE 241	Theatre History I	3
PSY 230	Abnormal Psychology	3
RST -	**Regional Studies Course	3
MTH 105	Mathematics and Today's World	or
MTH 121	College Algebra I	3
- -	*Natural Science Course	5
THE 150	Theatre Laboratory I	1

**Winter (Quarters)**

THE 242	Theatre History II	3
THE 220	Sound I	4
ITS 103	Information Technology Basics	3
- -	*Natural Science Course	5
THE 150	Theatre Laboratory I	1

**Spring (Quarters)**

THE 243	Theatre History III	3
THE 221	Sound II	4
- -	*Natural Science Course	5
GEO 220	World Regional Geography	or
SOC 220	Comparing Cultures	3
HUM 299	Capstone Seminar	3
THE 150	Theatre Laboratory I	1
Total Credit Hours (Quarters)		108

\* Natural Science Course options:

**Option 1** Take three courses, each from a different science area. (Possible classes include BIO 110, BIO 140, CHM 110, CHM 115, CHM 116, GLG 130, GLG 114, PHY 105, PHY 110 and PHY 120).

**Option 2** Take a three-course sequence in Biology, Chemistry, Geology or Physics. (Possible sequences include BIO 121-123, BIO 141-143, BIO 151-153, CHM 121-123, GLG 131-133, PHY 111-113, PHY 250-252).

\*\*Regional Studies Course Choose from: Regional Studies: 262 North India Regional Studies: 270 Africa, or Regional Studies: 280 Latin America

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.

# Theatre Arts Certificates

## Arts Administration Departmental Certificate (315)

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.

Course #	Course Title	Credit Hours
THE 111	Stagecraft I	4
THE 130	Introduction to Theatre	3
THE 230	Theatre Management	3
THE 241	Theatre History I *	or
THE 242	Theatre History II *	or
THE 243	Theatre History III *	3
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	Organizational Behavior	4
MGT 112	Principles of Management	4
MKT 200	Principles of Marketing	4
Total Credit Hours (Quarters)		37

\* Humanities elective meeting Global Awareness requirement.

Beginning Fall Quarter 2012, Clark State Community College will be operating on a semester-based academic calendar. The degree area requirements for students who begin on a quarter calendar will remain the same; semester credits will apply to the degree areas at a two-semester credit to 3 quarter credit ratio. Some course titles and all course numbers will change; course substitutions will be used as necessary to accommodate the needs of students with both quarter-based and semester-based enrollment. Each student should confirm transferability of quarter and semester credits with his/her transfer destination institution.



# Course Descriptions Quarters

# 2011

# 2012

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 pre/corequisite. Pre/corequisite courses must be taken during the same term or prior to the selected course.

Sometimes courses must be taken concurrently. If this is the case the courses are designated as corequisites. For example a seminar course and its associated practicum course must be taken simultaneously.

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 and/or equivalent Compass score

### 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 windows-based 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 112 and ITS 12S Pre/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 Pre/Corequisite(s): ACC 113

### ACC 212 Intermediate Accounting II (4)

Cash and receivables. Cost of goods sold and inventories including cost allocation, valuation, estimation and non-cost valuation procedures. Noncurrent operating assets including acquisition, utilization and retirement. Prerequisite(s): ACC 113 and ACC 211

### ACC 213 Intermediate Accounting III (4)

Current, contingent and long-term liabilities. Shareholders' equity, including contributed capital and retained earnings. Classification and reporting of investments. 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 federal, state and local corporate tax forms. A working knowledge in the preparation of sales and Commercial Activity Tax returns.

Prerequisite(s): ACC 221

Pre/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 and ACC 112

Pre/Corequisite(s): 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 healthcare organizations and accounting for colleges and universities.

Prerequisite(s): ACC 113 and 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 II (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 and CPE 091

**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: \$25.00

**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 recommended, but not required

Lab Fee: \$25.00

**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: \$10.00

**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: \$10.00

**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: \$10.00

**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: \$25.00

**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: \$25.00

**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 four-cycle small engine operation, applications, maintenance, lubrication, troubleshooting, service and repair.

Lab Fee: \$25.00

**AGR 189 Applied Practices in Agriculture I (1)**

Application of agricultural or horticultural principles and techniques under supervision of college staff and faculty.

**AGR 19B Agricultural Business Co-Op Experience I (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 and 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 and 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 and minimum of 15 technical hours

**AGR 19L 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 and 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 and minimum of 15 technical hours

**AGR 19P Parks and Recreation Co-op Experience I (3)**

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 and minimum of 15 technical hours

**AGR 19T 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 and 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 and 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 and ENG 111

Lab Fee: \$10.00

**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: \$25.00

**AGR 224 Irrigation Systems (3)**

Irrigation system operation and design. Primary emphasis is toward turf and horticultural applications.

Prerequisite(s): CPE 061

Lab Fee: \$25.00

**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: \$25.00

**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: \$20.00

**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: \$25.00

**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: \$20.00

**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.

Lab Fee: \$25.00

**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.

Lab Fee: \$25.00

**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: \$15.00

**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.

Pre/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 and ENG 111

Pre/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 and DFT 211

Lab Fee: \$15.00

**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 problem-solving skills to respond to a series of real world industry scenarios. Off-site casework may be required.

Prerequisite(s): AGR 151, AGR 284, co-op, and 45 technical hours

Lab Fee: \$10.00

**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: \$20.00

**AGR 298 Applied Practices in Agriculture III (1)**

Application of agricultural or horticultural principles and techniques under supervision of college staff and faculty.

**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 and 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 and AGR 19E

**AGR 29G 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 and AGR 19G

**AGR 29L 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 and 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 and 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 and AGR 19P

**AGR 29T Turf and Landscape Operations Co-op Experience II (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 and 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: \$5.00

## **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: \$5.00

## **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: \$20.00

## **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.

Lab Fee: \$20.00

## **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, grade of B or better in CPE 071 or a grade of C or better in CPE 072, or appropriate Compass Score Pre/Corequisite(s): ENG 111

## **ART 133 Art History I (3)**

Survey of visual art from Prehistoric times through the dawn of the Gothic Era. Introduction to basic concepts of visual and stylistic analysis, with emphasis on the understanding of the evolution of art through historical context.

Prerequisite(s): CPE 061, grade of B or better in CPE 071 or a grade of C or better in CPE 072, or appropriate Compass Score Pre/Corequisite(s): ENG 111

## **ART 134 Art History II (3)**

Survey of visual art from the Gothic era through Romanticism.

Prerequisite(s): CPE 061, grade of B or better in CPE 071 or a grade of C or better in CPE 072, or appropriate Compass Score Pre/Corequisite(s): ENG 111

## **ART 135 Art History III (3)**

Survey of visual art from the neo-classical era through the twentieth century.

Prerequisite(s): CPE 061, grade of B or better in CPE 071 or a grade of C or better in CPE 072, or appropriate Compass Score Pre/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 and GPH 105

Lab Fee: \$10.00

## **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: \$10.00

## **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: \$10.00

## **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: \$10.00

# (ATI) Advanced Technical Intelligence

## **ATI 101 Introduction to the Intelligence Community (3)**

Origins and structure of the current U.S. Intelligence Community (IC). Key intelligence agencies and their functions, roles and missions. Facets of the intelligence production cycle, including tasking, collecting and processing. Exploitation/analysis and dissemination of intelligence data. U.S. citizenship required.

Prerequisite(s): CPE 062 and CPE 072

Lab Fee: \$495.00

## **ATI 110 Fundamentals of Remote Sensing in Intelligence (3)**

Science and underlying phenomenology of remote sensing. Remote sensing collection system; how it interacts with the environment while collecting information from that environment. U.S. citizenship required.

Prerequisite(s): CPE 062, CPE 072, MTH 121 and PHY 105 or PHY 110 or CHM 110 or high school chemistry and physics within the last 3 years

Lab Fee: \$495.00

### **ATI 210 Introduction to Spectral Sensing w/ Applications in Intelligence (3)**

Science and technology behind Spectral Remote Sensing. Underlying phenomenology being sensed. How information is collected. Advantages and disadvantages of the technology. U.S. citizenship required.

Prerequisite(s): ATI 101, ATI 110 and ENG 111

Pre/Corequisite(s): ENG 112

Lab Fee: \$495.00

### **ATI 215 Introduction to Radar for MASINT (3)**

Underlying principles of radar. How Over-the Horizon and Line-Of-Sight radar can be used as a MASINT (Measurement and Signature Intelligence) sensor. How radio waves are created and propagated. How radio waves interact with an object and are returned to the radar. How radar interprets the returned energy. U.S. citizenship required.

Prerequisite(s): ATI 101, ATI 110 and ENG 111

Pre/Corequisite(s): ENG 112

Lab Fee: \$495.00

### **ATI 220 Introduction to Overhead Non-Imaging Infrared (ONIR) (3)**

Role of ONIR in National Defense. Data collection, processing and exploitation. Advantages and disadvantages of ONIR as a remote sensing tool. U.S. citizenship and security clearance required.

Prerequisite(s): National Security Clearance, ATI 210, ATI 215 and ENG 112

Lab Fee: \$495.00

### **ATI 225 MASINT Fundamentals (3)**

Overview of MASINT (Measurement and Signature Intelligence) disciplines: Chemical, Biological, Radiological and Nuclear; Seismic and Acoustic; Geophysical; Materials; Radio Frequency. Over-the-Horizon Radar, Synthetic Aperture Radar (SAR). U.S. citizenship and security clearance required.

Prerequisite(s): National Security Clearance, ATI 210 and ATI 215

Pre/Corequisite(s): ATI 220

Lab Fee: \$495.00

### **ATI 230 Introduction to Wide Area Airborne Surveillance (2)**

Basics of Wide Area Airborne Surveillance (WAAS) from evolution to current operations. Current civil and military applications. Future applications. WAAS analysis software and techniques. Use of analysis software using real-world examples. Delivery of low-level briefings.

Prerequisite(s): ENG 112, 18 college-level credits and U.S. citizenship

### **ATI 235 Applications of Wide Area Airborne Surveillance (2)**

Introduction to the law and the investigative process. Event location using open sources and Wide Area Airborne Surveillance (WAAS) imagery. Verification of previously analyzed data. Management of WAAS data exploitation specialists. Development and delivery of high-level briefings. Capstone experience.

Prerequisite(s): ATI 230, instructor permission and U.S. citizenship  
Instructor Permission Required.

## **(AVN) Aviation**

### **AVN 101 Private Pilot Ground (4)**

Introduction to basic flight maneuvers, cross country navigation, airspace procedures, communications, airport operations, preparation for the FAA private pilot practical exam.

Corequisite(s): AVN 102

### **AVN 102 Private Pilot Test Prep (1)**

Preparation for the FAA private pilot knowledge test.

Corequisite(s): AVN 101

Lab Fee: \$150.00

### **AVN 103 Private Pilot Flight Lab (2)**

Introduction to basic flight maneuvers, cross country navigation, airspace procedures, communications and airport operations in preparation for the FAA private pilot practical exam.

Prerequisite(s): FAA 3rd Class Medical

Corequisite(s): AVN 101 and AVN 102

Instructor Permission Required.

Lab Fee: \$7850.00

### **AVN 107 Supervised Flight Lab I (2)**

Development of cross country flight time requirements for the instrument rating.

Prerequisite(s): AVN 101, AVN 102, AVN 103 and FAA 3rd class medical and private pilot certificate

Instructor Permission Required.

Lab Fee: \$4950.00

### **AVN 111 Instrument Ground (4)**

Introduction to instrument flight rules and procedures, advanced flight planning and navigation, Federal Aviation Regulations, controlled airspace procedures and advanced communications.

Prerequisite(s): AVN 101, AVN 102 and private pilot certificate

Corequisite(s): AVN 112

### **AVN 112 Instrument Test Prep (1)**

Preparation for the FAA instrument knowledge test.

Prerequisite(s): AVN 101, AVN 102 and private pilot certificate

Corequisite(s): AVN 111

Lab Fee: \$150.00

### **AVN 113 Instrument Flight Lab (2)**

Introduction to attitude instrument flying, departure, enroute and arrival procedures, advanced navigation, precision and non-precision approaches and loss of communication procedures in preparation for the FAA instrument practical exam.

Prerequisite(s): Private Pilot Certificate, FAA 3rd Class Medical

Pre/Corequisite(s): AVN 107, AVN 111 and AVN 112

Instructor Permission Required.

Lab Fee: \$6300.00

### **AVN 115 Aviation Weather (3)**

Introduction to basic weather, circulations systems, hazards, reports, resourced, briefing, evaluation and decision making.

**AVN 117 Supervised Flight Lab II (2)**

Development of total time requirement for the commercial pilot certificate.

Prerequisite(s): Private Pilot Certificate with Instrument Rating, FAA 3rd Class Medical

Instructor Permission Required.

Lab Fee: \$4950.00

**AVN 118 Supervised Flight Lab III (2)**

Continuation of the development of cross country flight time requirements for the commercial pilot certificate.

Prerequisite(s): private pilot certificate with an instrument rating and FAA 3rd class medical

Instructor Permission Required.

Lab Fee: \$4950.00

**AVN 121 Commercial Ground (4)**

Introduction to advanced aircraft performance and operations, complex and high performance aircraft systems, Federal Aviation Regulations, high altitude operations, and oxygen systems.

Prerequisite(s): AVN 101, AVN 102 and/or private pilot certificate

Corequisite(s): AVN 122

**AVN 122 Commercial Pilot Test Prep (1)**

Preparation for the FAA commercial computer based knowledge test.

Prerequisite(s): AVN 101, AVN 102 and/or private pilot certificate

Corequisite(s): AVN 121

Lab Fee: \$150.00

**AVN 123 Commercial Pilot Flight Lab (1)**

Introduction to advanced flight maneuvers and complex aircraft operations in preparation for the FAA commercial practical exam.

Prerequisite(s): Private Pilot Certificate with Instrument rating, FAA 3rd Class Medical

Pre/Corequisite(s): AVN 117, AVN 118, AVN 121 and AVN 122

Instructor Permission Required.

Lab Fee: \$5200.00

**AVN 201 Certified Flight Instructor Ground (4)**

Introduction to the fundamentals of instruction, instruction techniques, Federal Aviation Regulations, lesson planning, pre-flight and post-flight procedures, performance maneuvers and ground reference maneuvers.

Prerequisite(s): AVN 101, AVN 102, AVN 111, AVN 112, AVN 121, AVN 122 and/or a commercial pilot certificate

Corequisite(s): AVN 202

**AVN 202 Certified Flight Instructor Test Prep (1)**

Preparation for the FAA Certified Flight Instructor and Fundamentals of Instructing knowledge tests.

Prerequisite(s): AVN 101, AVN 102, AVN 111, AVN 112, AVN 121, AVN 122 and/or a commercial pilot certificate

Corequisite(s): AVN 201

Lab Fee: \$300.00

**AVN 203 Certified Flight Instructor Flight Lab (1)**

Introduction to ground reference and performance flight maneuvers from the right seat, stall and spin awareness, airport procedures and advanced communication skills in preparation for the FAA Certified Flight Instructor practical exam.

Prerequisite(s): commercial pilot certificate and FAA 3rd class medical

Pre/Corequisite(s): AVN 201 and AVN 202

Instructor Permission Required.

**AVN 211 Certified Flight Instructor Instrument Ground (2)**

Introduction to instrument instruction techniques, Federal Aviation Regulations, lesson planning and pre-flight and post-flight procedures.

Prerequisite(s): commercial pilot certificate

Pre/Corequisite(s): AVN 201 and AVN 202

Lab Fee: \$4180.00

**AVN 212 Certified Flight Instructor Test Prep (1)**

Preparation for the FAA instrument instruction written test.

Prerequisite(s): AVN 101, AVN 102, AVN 111, AVN 112, AVN 121, AVN 122 and/or certified flight instructor rating

Pre/Corequisite(s): AVN 201 and AVN 202

Corequisite(s): AVN 211

Lab Fee: \$150.00

**AVN 213 Certified Flight Instructor Instrument Flight Lab (0)**

Introduction to attitude instrument flying, departure, enroute and arrival procedures advanced navigation, precision and non-precision approaches from the right seat in preparation for the FAA instrument practical exam.

Prerequisite(s): Commercial Pilot Certificate, FAA 3rd Class Medical

Pre/Corequisite(s): AVN 203, AVN 211, and AVN 212

Instructor Permission Required.

Lab Fee: \$3200.00

**AVN 221 Multi-Engine Ground (2)**

Introduction to multi-engine aircraft performance and operations, engine out procedures, single engine operations and aerodynamics, aircraft systems and Federal Aviation Regulations.

Prerequisite(s): AVN 121, AVN 122 and/or commercial pilot certificate

**AVN 223 Multi-Engine Flight Lab (.75)**

Introduction to multi-engine flight maneuvers, engine out procedures, single engine operations, approaches and procedures in preparation for the multi-engine rating.

Prerequisite(s): Commercial pilot certificate with instrument rating and FAA 2nd class medical

Pre/Corequisite(s): AVN 221

Instructor Permission Required.

Lab Fee: \$4950.00

### **AVN 233 Multi-Engine Instructor Flight Lab (.75)**

Introduction to multi-engine flight maneuvers, engine out procedures, single engine operations, approaches and procedures from the right seat in preparation for the multi-engine instructor rating.

Prerequisite(s): Commercial pilot certificate with instrument rating, certified flight instructor rating and FAA 2nd class medical

Pre/Corequisite(s): AVN 221

Instructor Permission Required.

Lab Fee: \$3475.00

## **(BIO) Biology**

### **BIO 105 Fundamentals of Anatomy and Physiology (4)**

The human body's structure and function with emphasis on major body systems.

Prerequisite(s): CPE 062, CPE 071 and or equivalent 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: \$45.00

### **BIO 118 Muscle Function (2)**

Study of skeletal structure and function and the origin, insertion, and action of trunk and extremity musculature. Introduction to palpation and muscle function during laboratory activities.

Prerequisite(s): CPE 061 or equivalent Compass score

Pre/Corequisite(s): MST 105, PTA 110, BIO 121 and PTA 120

Instructor Permission Required.

### **BIO 121 Anatomy and Physiology I (4)**

Human cells, tissues, skin, bones, muscles, nervous system cells, autonomic nervous system.

Prerequisite(s): CHM 115 or CHM 114 or high school chemistry within 5 years

Pre/Corequisite(s): MST 105 and Clark State online anatomy & physiology preparatory module.

Lab Fee: \$25.00

### **BIO 122 Anatomy and Physiology II (4)**

Human circulatory, respiratory, urinary, digestive systems, acid-base, fluid and electrolyte balance, metabolism.

Prerequisite(s): BIO 121 and MST 105

Lab Fee: \$25.00

### **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: \$25.00

### **BIO 131 Microbiology (4)**

Study of bacteria, fungi, protista, rickettsiae, chlamydia, viruses, and helminths. Emphasis on bacteria and their relationship to health.

Prerequisite(s): CPE 062 and CPE 071 or equivalent Compass score

Lab Fee: \$90.00

### **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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/Corequisite(s): ENG 111

Lab Fee: \$40.00

### **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. Concepts in Biology for students in non-science majors.

Prerequisite(s): CPE 061 or appropriate Compass score

Lab Fee: \$45.00

### **BIO 142 The Human Organism (5)**

The human as organism; a comparative look at structure, function and behavior. Concepts in Biology for students in non-science majors.

Prerequisite(s): CPE 061 or appropriate Compass score

Lab Fee: \$45.00

### **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. Concepts in Biology for students in non-science majors.

Prerequisite(s): CPE 061

Lab Fee: \$45.00

### **BIO 151 Evolution and Ecology (5)**

Topics include evolution, diversity, the ecology of organisms, the processes by which biological life changes occur over time, the diversity of life that result from these changes and the adaptations that occur. Ecology and environmental issues. Based on content, Biology 151 is the third course in the biology series.

Prerequisite(s): CPE 061, CPE 101 or appropriate Compass score and BIO 153

Lab Fee: \$45.00

### **BIO 152 Human and Animal Anatomy (5)**

The human organism, a comparative look at structure, function, animal anatomy and behavior, human body systems and problems with these systems, diseases of the human body and the evolutionary significance of these systems, diseases of the human body. This is the second course in a university parallel sequence for biology and science majors.

Prerequisite(s): CPE 061, CPE 101 or appropriate Compass score and BIO 153

Lab Fee: \$45.00

### **BIO 153 Cellular Biology and Genetics (5)**

Cell biology and genetics, cellular molecules, cell anatomy, cellular processes, photosynthesis, cellular respiration, cell division, mendelian and molecular genetics, DNA technologies and bioethical issues. Based on content, Biology 153 is the first course in the biology series.

Prerequisite(s): CPE 061 and CPE 101 or appropriate Compass score

Lab Fee: \$45.00

### **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 and PTA 110

Pre/Corequisite(s): BIO 122 and PTA 145

Lab Fee: \$15.00

## **(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: \$25.00

### **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. This course does not fulfill the AA or AS science requirement and typically does not transfer to four-year programs. Extensive online requirements.

Prerequisite(s): CPE 061 and CPE 101 or appropriate Compass score. For AS students CPE 103 is highly recommended.

Pre/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. Extensive online requirements.

Prerequisite(s): CPE 061 and CPE 101 or appropriate Compass score. For AS students CPE 103 is highly recommended.

Pre/Corequisite(s): ENG 111

Lab Fee: \$25.00

### **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, appropriate Compass score and CHM 114 or CHM 115 or high school chemistry within 5 years. For AS students CPE 103 is highly recommended.

Pre/Corequisite(s): ENG 111

Lab Fee: \$25.00

### **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 appropriate Compass score and CHM 115 or H.S. chemistry and passing chemistry placement test and CPE 103 or appropriate score on the math placement test

Pre/Corequisite(s): ENG 111 and MTH 120 or MTH 121

Lab Fee: \$35.00

### **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

Pre/Corequisite(s): MTH 122 and ENG 112

Lab Fee: \$35.00

### **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: \$35.00

### **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: \$40.00

### **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: \$40.00



### **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: \$40.00

## **(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

Pre/Corequisite(s): CPE 071

### **COM 121 Public 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 sections require digital recording equipment and are not recommended for those students who suffer from speech anxiety.

Prerequisite(s): CPE 061, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/Corequisite(s): ENG 111

### **COM 170 Small Group Communication (4)**

An introduction to the basic terms, principles and theories of small group communication, examining specifically leadership, roles, goal achievement, conflict, decision making, problem solving. Development of effective group decision making, leadership skills, emphasizing methods of expressing oneself and understanding others.

Prerequisite(s): CPE 072

Pre/Corequisite(s): ENG 111

### **COM 221 Public 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

Pre/Corequisite(s): ENG 112

### **COM 270 Communication Internship (3)**

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): ENG 112 and minimum 60 credit hours

Instructor Permission Required.

## **(COR) Corrections**

### **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

Pre/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

Pre/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 and 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, and 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) College Prep Education**

### **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 students for the writing skills and requirements of English 111 and 112 as well as the specific writing needs for their individual areas of concentrated study. The course attempts to improve sentence and writing skills by combining exercises in grammar and mechanics and weekly writing assignments. Development of topic and ideas to support topic sentences in an organized and coherent manner will also be covered as well as a basic essay. 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. Institutional credit only.

Prerequisite(s): CPE 071 with a grade of C or appropriate Compass score

Pre/Corequisite(s): CPE 062 and or equivalent 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, solving various application/word problems and operations with polynomials. Institutional credit only.

Prerequisite(s): CPE 091 with a grade of C or better or appropriate Compass score

**CPE 102 Introductory Algebra II (4)**

Topics include factoring of polynomials, operations on rational expressions, solving equations containing rational expressions (with applications), graphs of points and lines, slope and linear systems in two variables. Institutional credit only.

Prerequisite(s): CPE 101 with a grade of C or better or appropriate Compass score

**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): CPE 102 with a grade of C or better or appropriate Compass score

# (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, presentation and other commercial software.

Prerequisite(s): CPE 061 or appropriate Compass score

Lab Fee: \$75.00

**CRJ 118 Forensic Photography (3)**

The application of photography to criminal and civil investigations, including the preparation of courtroom presentation.

Prerequisite(s): PHO 100

Lab Fee: \$25.00

**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: \$15.00

### **CRJ 223 Forensic Science II (5)**

Familiarization with selected laboratory techniques commonly used by law enforcement agencies.

Prerequisite(s): CRJ 221

Lab Fee: \$15.00

### **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 participate in two hours of weekly seminar discussions 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. First day attendance is mandatory.

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. First day attendance is mandatory.

Prerequisite(s): CRJ 100, CRJ 112, CRJ 116, CRJ 118, CRJ 120, CRJ 123, CRJ 125, CRJ 201, CRJ 216, CRJ 221, CRJ 226, CRJ 228, CRJ 231 and CRJ 223 or CRJ 222

### **CRJ 283 Basic Law Enforcement I (13)**

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 (OPOTC).

Corequisite(s): CRJ 284

Instructor Permission Required.

Lab Fee: \$580.00

### **CRJ 284 Basic Law Enforcement II (12)**

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(OPOTC).

Corequisite(s): CRJ 283

Instructor Permission Required.

Lab Fee: \$580.00

## **(CSD) Computer Software Development**

### **CSD 101 CSD Program Orientation (1)**

Overview of Computer Software Development (CSD) Program. Introduction to campus resources and computer services. Time management, study skills, communication skills.

Prerequisite(s): CPE 062, ITS 080 and ITS 081

Lab Fee: \$10.00

### **CSD 104 Programming Fundamentals (5)**

Fundamental programming constructs and concepts. Study of variables, constants, looping, strings, flowcharting basics, programming logic and data validation techniques. Introduction to object - oriented programming.

Prerequisite(s): CPE 101, ITS 080, ITS 081 and CPE 062

Lab Fee: \$20.00

### **CSD 106 Introduction to Scripting Languages (4)**

An Introduction to fundamentals of scripting languages used to build Web application components.

Prerequisite(s): ITS 107 or ITS 115 and CSD 104 or CSD 105

### **CSD 130 Database Management Systems (3)**

Knowledge and skills needed to model business requirements. Object role modeling (ORM) techniques and ORM tools. Database modeling and how ORM relates to Entity Relationship (ER) diagrams.

Prerequisite(s): CPE 102 and ITS 109

Lab Fee: \$20.00

### **CSD 214 C Concepts I (4)**

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): CPE 102 and CSD 104 or CSD 105

Lab Fee: \$20.00

### **CSD 215 C Concepts II (4)**

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 214

Lab Fee: \$20.00

### **CSD 221 Systems Analysis and Design (4)**

Analysis and design of computer-based information systems.

Prerequisite(s): CPE 102, CSD 104 or CSD 105 and MGT 200

Lab Fee: \$20.00

### **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): CPE 102 and (CSD 104 or CSD 105)

Lab Fee: \$20.00

### **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: \$20.00

### **CSD 230 Database Design and Administration (5)**

Database design theory, structure and management. Issues related to MS Structured Query Language (SQL) Server database installation and configuration.

Prerequisite(s): CSD 130 and ITS 109

Lab Fee: \$20.00

### **CSD 270 Advanced Topics (4)**

Integration of programming, database and web design. Students will be required to analyze a project, design and implement a solution, write a final report and prepare and deliver a presentation.

Prerequisite(s): CSD 130 or CSD 140 or ITS 110, ITS 115 or ITS 107, and CSD 121 or CSD 214 or CSD 224

Lab Fee: \$20.00

## **(CSE) CyberSecurity**

### **CSE 150 Introduction to CyberSecurity (4)**

Introductory course in computer and information security. Topics include: internet security basics, hackers, spyware, phishing, spam, zombies, trojan horses, worms, viruses, wi-fi security, denial-of-service, web-blocking, firewalls and proxy servers. Installation and configuration of security software tools and utilities.

Pre/Corequisite(s): NTK 176

Lab Fee: \$50.00

### **CSE 152 CyberSecurity - Security+ (4)**

Security baselines, network infrastructure security, web security, cryptography, operations security management. CompTIA Security+ certification objectives.

Prerequisite(s): CSE 150

Lab Fee: \$50.00

### **CSE 251 CyberSecurity - Security Professional I (4)**

Information security and risk management, access controls, application security, disaster recovery planning, cryptography and legal aspects of information security. First of two courses covering the ISC2 Computer Information Systems Security Professional (CISSP) certification objectives.

Prerequisite(s): CSE 152

Lab Fee: \$50.00

### **CSE 252 CyberSecurity - Security Professional II (4)**

Information systems operations security, physical and environmental security architecture and design and telecommunications and network security. Second of two courses covering the ISC2 Computer Information Systems Security Professional (CISSP) certification objectives.

Prerequisite(s): CSE 251

Lab Fee: \$50.00

### **CSE 261 CyberSecurity - Capstone I (4)**

Developing a formal security policy document, logical network security design and security implementation strategy for a large enterprise. Infrastructure security modeled using virtualization and other software simulation tools.

Prerequisite(s): CSE 252

Lab Fee: \$50.00

## **(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.

### **DAN 111 Ballet I (3)**

Basic fundamentals and theory of classical ballet for beginning students. Includes barre work, center combinations and traveling sequences.

### **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 and 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.

### **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.

### **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.

**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 150 Composition I (2)**

Basic choreographic factors using a single dancer. Study of historical styles and movement qualities.  
Prerequisite(s): DAN 112  
Lab Fee: \$50.00

**DAN 160 Dance History (3)**

Survey the major aspects of Western theatrical dance from sixteenth century through the twentieth century.

**DAN 215 Pointe Technique I (2)**

Application of advanced ballet technique en pointe.

## (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: \$15.00

**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: \$15.00

**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 111  
Lab Fee: \$15.00

**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 and ENG 223

Lab Fee: \$15.00

**DFT 211 Computer-Aided Design I (4)**

AutoCAD software to construct two-dimensional mechanical drawings. AutoCAD commands to produce drawings and fully dimension them according to ANSI standards. Drawings plotted at scale as required.

Prerequisite(s): Computer knowledge equivalent to ITS 080

Lab Fee: \$15.00

**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

Lab Fee: \$15.00

**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: \$15.00

**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: \$15.00

## (EBE) Experience-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: \$5.00

**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 263 Special Topics - Internship (3)**

Planned, structured, work experience in a professional work setting. Project-based approach to assisting an organization in accomplishing a goal or goals. Apply classroom theory and acquire new knowledge and skills. Learn about, react to and write about internship organization and internship experience. A minimum of 30 hours of on-site supervised work in addition to off-site activities required to complete the project.

Prerequisite(s): EBE 100, 6 hours of oral and written communication courses, 15 hours of coursework relevant to the planned internship experience, approved placement and instructor permission

Instructor Permission Required.

**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

**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 285 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.

**EBE 286 Co-op Education II (4)**

Continuation of valuable work experience. In addition to requirements of EBE 285, special project is required based on the technology.

**EBE 287 Co-op Seminar I (2)**

Discussion of workplace experiences relating to classroom theory and practice to the work environment.

**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, 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, 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, EBE 283 or EBE 284 and approved Co-op placement

**EBE 297 Co-op Seminar II (2)**

Discussion of workplace experiences relating classroom theory and practice to the work environment.

## (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 performance-based assessment for beginning teachers. (PRAXIS). BCI background check required at student expense.

Prerequisite(s): CPE 061 or appropriate Compass score

Pre/Corequisite(s): ECE 102

Lab Fee: \$10.00

**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. Observation hours required.

Prerequisite(s): CPE 061 or appropriate Compass score

Pre/Corequisite(s): ECE 101

Lab Fee: \$30.00

Student Liability Fee: \$20.00

**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. Ten hours observation required.

Prerequisite(s): CPE 061 or appropriate Compass score and ECE 101 and ECE 102

Lab Fee: \$25.00

**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 and CPE 061 or appropriate Compass score

Lab Fee: \$25.00

**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: \$35.00

**ECE 115 Resources in Early Childhood Education (2)**

Making teaching materials and audio-visuals. Early childhood technology and use in the classroom. 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 and CPE 061 or appropriate Compass score

Lab Fee: \$25.00

**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

Pre/Corequisite(s): ECE 102 or Instructor permission

Lab Fee: \$25.00

**ECE 131 Child Development Associate (CDA) - A (4)**

First of three courses to earn Child Development Associate (CDA), both Preschool and Infant/Toddler Endorsements. Course A includes Competency Goal 1, Autobiography and completion of 8 personal resource files. Content will provide students 40 of 120 clock hours requirement in Functional Areas: Professionalism, foundations of education, observation, health, safety, learning environments.

Prerequisite(s): CPE 061 or equivalent Compass score

Lab Fee: \$25.00

**ECE 133 Child Development Associate (CDA) - B1 Preschool (4)**

Second of three courses to earn Child Development Associate (CDA), Preschool Endorsement. Course B includes Competency Goals 2 and 3, completion of 6 Personal Resource Files, 40 hours of the required 120 clock hours in Functional Areas: record keeping, observation, planning and implementing appropriate activities for 3-5, focus on intellectual, physical, social, emotional development, and working with parents.

Prerequisite(s): ECE 131

Lab Fee: \$25.00

**ECE 135 Child Development Associate (CDA) - B2 Infant Toddler (4)**

Second of three courses to earn Child Development Associate (CDA), Infant/Toddler Endorsement. Course B includes Competency Goals 2 and 3, completion of 6 Personal Resource Files, 40 hours of the required 120 clock hours in Functional Areas: record keeping, observation, planning and implementing appropriate activities for 0-3, focus on intellectual, physical, social, emotional development and working with parents.

Prerequisite(s): ECE 131

Lab Fee: \$25.00

**ECE 137 Child Development Associate (CDA) - C (5)**

Third of three courses to earn Child Development Associate (CDA), Preschool or Infant/Toddler Endorsement. Course C includes Competency Goals 4, 5, and 6, completion of final 3 Personal Resource Files, final 40 hours of the required 120 clock hours: Functional Areas of families, program management, professionalism, review of all 6 competency goals, Field and written assessments with emphasis to prepare CDA candidates for CDA application processes, council visit, examination and completion of CDA portfolio

Prerequisite(s): ECE 133 or ECE 135

Lab Fee: \$25.00

**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: \$25.00

**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/school-age child.

Prerequisite(s): ECE 102 and CPE 061 or appropriate Compass score

Lab Fee: \$25.00

**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: \$25.00

**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 and CPE 061 or appropriate Compass score

Lab Fee: \$25.00

**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. Six hours field experience. BCI clearance required. Prerequisite(s): ECE 102, PSY 221 or instructor permission, and ENG 111

Lab Fee: \$25.00

**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): PSY 221 and ECE 102

Lab Fee: \$25.00

**ECE 225 Issues in Education (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: \$25.00

**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

Pre/Corequisite(s): ECE 225

Lab Fee: \$25.00

**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: \$25.00

**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 and ECE 223

Corequisite(s): ECE 291

Instructor Permission Required.

Lab Fee: \$25.00

Student Liability Fee: \$20.00

**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

Instructor Permission Required.

Lab Fee: \$25.00

**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): CPE 061 or appropriate COMPASS score and ECE 102

Lab Fee: \$25.00

**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, ECE 291, and Instructor permission

Pre/Corequisite(s): ECE 225 and ECE 230

Corequisite(s): ECE 293

Instructor Permission Required.

Lab Fee: \$25.00

Student Liability Fee: \$20.00

**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

Corequisite(s): ECE 271

Instructor Permission Required.

Lab Fee: \$25.00

**ECE 292 Child Care Capstone Seminar (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 and ECE 291

Corequisite(s): ECE 272

Instructor Permission Required.

Lab Fee: \$25.00



### **ECE 293 Child Care Seminar- Administration Capstone (2)**

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 271, and ECE 291

Pre/Corequisite(s): ECE 225 and ECE 230

Corequisite(s): ECE 283

Instructor Permission Required.

Lab Fee: \$25.00

## **(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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score  
Pre/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

Pre/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

Pre/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): ENG 111

### **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): ENG 111 and ECE 102 or EDU 110 or Instructor permission

Pre/Corequisite(s): ENG 112

## **(EEP) Early Elementary Paraprofessional**

### **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, and ENG 111

Lab Fee: \$25.00

### **EEP 200 Educational Teaming: Working with Parents (3)**

Effects of culture, disability, socio-economic 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 and ECE 101, ECE 102 or Instructor permission

Lab Fee: \$25.00

## **(EMS) Emergency Medical Services**

### **EMS 110 Health and Health Emergencies (3)**

Consideration of selected health conditions and issues; recognition of health emergencies; demonstration of assistive measures.

Lab Fee: \$20.00

### **EMS 111 EMT-Basic Theory and Practice (10)**

Meets current standards of National Curriculum of EMT-Basic. 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): Compass Score Minimums: Reading 70, Writing 70 or CPE 062 Reading; CPE 072 Writing or equivalents and CPR certification or EMS 171 taken concurrently

Corequisite(s): Criminal background check

Lab Fee: \$25.00

Student Fee: \$62.00

**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): CPE 062, CPE 091 and or equivalent Compass score and MST 105, BIO 105 and Ohio EMT Basic Certification

Corequisite(s): EMS 131, EMS 132 and EMS 118

Student Liability Fee: \$62.00

**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): CPE 062 or equivalent Compass score and CPE 091 or equivalent Compass score and EMS 131, EMS 132, EMS 112 and EMS 118 and BIO 105 and MST 105

Corequisite(s): EMS 120, EMS 133 and EMS 134

**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 and EMS 120

Corequisite(s): EMS 135, EMS 136 and EMS 122

**EMS 117 EMT Intermediate Theory/Practice I (6)**

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): CPE 061 or equivalent Compass score and CPE 091 or equivalent Compass score and Ohio EMT Basic certification

Instructor Permission Required.

Lab Fee: \$45.00

**EMS 118 Paramedic Field Practice I (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): CPE 062, CPE 091 or equivalent Compass scores and MST 105, BIO 105 and Certification as Ohio EMT Basic

Corequisite(s): EMS 131, EMS 132 and EMS 112

**EMS 119 EMT Intermediate Theory/Practice II (6)**

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

Instructor Permission Required.

**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): CPE 062 or equivalent Compass score and CPE 091 or equivalent Compass score and EMS 131, EMS 132, EMS 112 and EMS 118 and BIO 105 and MST 105

Corequisite(s): EMS 133, EMS 134 and 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 and EMS 120

Corequisite(s): EMS 135, EMS 136 and 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): CPE 062 Reading, CPE 091 Math or Compass Score Minimums: Reading 70, Writing 70, Math 47 and BIO 105, MST 105 and Ohio Basic EMT Certification

Corequisite(s): EMS 112, EMS 118 and 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): CPE 062, CPE 091 or equivalent Compass scores and BIO 105, MST 105 and Ohio EMT Basic Certification

Corequisite(s): EMS 131, EMS 112 and EMS 118

Lab Fee: \$75.00

### **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): CPE 062 or equivalent Compass score and CPE 091 or equivalent Compass score and EMS 112, EMS 118, EMS 131 and EMS 132 and BIO 105 and MST 105

Corequisite(s): EMS 114, EMS 120 and 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): CPE 062 or equivalent Compass score and CPE 091 and BIO 105 and MST 105 and EMS 112, EMS 118, EMS 131 and EMS 132

Corequisite(s): EMS 133, EMS 114, and EMS 120

Lab Fee: \$75.00

### **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 and EMS 120

Pre/Corequisite(s): EMS 136, EMS 116 and 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 and EMS 120

Pre/Corequisite(s): EMS 135, EMS 116 and EMS 122

Lab Fee: \$75.00

### **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.

Lab Fee: \$15.00

### **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 Paramedic 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-Paramedic 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

### **EMS 288 Paramedic Theory/RNs (6)**

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. 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, minimum 2 years critical care, TNCC, Ohio EMT-Basic Certification

Instructor Permission Required.

Lab Fee: \$65.00

Student Liability Fee: \$62.00

## **(ENG) English**

### **ENG 111 English I (4)**

The process of writing a variety of academic and argumentative essays, language issues and library skills. Writing intensive.

Prerequisite(s): CPE 071 with a grade of B or better or CPE 072 with a grade of C or better or appropriate Compass score

Corequisite(s): CPE 062 and/or equivalent 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, fiction and drama.

Prerequisite(s): CPE 061, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass score and 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, which requires digital recording equipment in online sections. Will not necessarily transfer as the equivalent of ENG 112.

Prerequisite(s): ENG 111 with a grade of C or better

### **ENG 221 Business Communication (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 OAD 105

### **ENG 223 Technical Report Writing (3)**

A survey of technical communications encountered in the workplace, focused on producing user-centered, accessible information, including technical definitions, descriptions, instructions, proposals, progress reports, analytical reports, and oral presentations, as well as internal and external memos and e-mail. This course incorporates the American Psychological Association (APA) standard for writing papers. Prerequisite(s): ENG 111 and ITS 12W, ITS 103 or basic word processing and keyboarding skills

### **ENG 225 Creative Writing (3)**

Introduce three major literary genres: fiction, poetry and drama. Discuss the basic elements of the three forms. Write a collection of poems, short and long fiction, a one-act script, screen play or play and a literary analysis. Prerequisite(s): ENG 111  
Pre/Corequisite(s): ENG 112

### **ENG 230 Great Books: World Literature (3)**

Chronological selection of the major works, genres and periods of world literature beginning with the ancients and progressing through modern times. Prerequisite(s): ENG 111  
Pre/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 genres, 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. Prerequisite(s): ENG 111  
Pre/Corequisite(s): ENG 112

### **ENG 243 Fiction (3)**

Critical reading, discussion and analysis of short stories and novels. Prerequisite(s): ENG 111  
Pre/Corequisite(s): ENG 112

### **ENG 245 Drama (3)**

Study and analysis of plays from different historical periods. Prerequisite(s): ENG 111  
Pre/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  
Pre/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  
Pre/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  
Pre/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): DFT 101 or INT 105

### **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  
Pre/Corequisite(s): CPE 102

### **ENT 104 Dimensional Metrology (3)**

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. Instruction in part visualization from drawings; including location of key features, drawing dimensioning specifications. Beginning concepts in geometric dimensioning and tolerancing. Prerequisite(s): CPE 061  
Lab Fee: \$15.00

### **ENT 107 Manufacturing Safety and Quality (4)**

Introduction to the manufacturing process. Team building, leadership, customer service, safety, quality and continuous improvement. Preparation for Certified Production Technician Testing through the Manufacturing Skill Standards Council (MSSC). Prerequisite(s): ITS 080 and/or equivalent Compass score  
Lab Fee: \$1000.00

### **ENT 108 Manufacturing Processes and Maintenance Awareness (4)**

Manufacturing production processes, mechanical principles, production control and documentation, packaging and distribution, welding, basic electrical circuits, pneumatics, lubrication and coolants, bearings and couplings, belt and chain drives, machine control concepts and automation. Preparation for Certified Production Technician Testing through the Manufacturing Skill Standards Council (MSSC).

Prerequisite(s): ENT 107

Lab Fee: \$830.00

### **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

Pre/Corequisite(s): CPE 102

Lab Fee: \$10.00

### **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 DFT 211 or INT 105

Lab Fee: \$50.00

### **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 and CPE 061

Lab Fee: \$15.00

### **ENT 125 Computerized Maintenance Management Systems (2)**

Overview and introduction to computerized maintenance management systems (CMMS).

Prerequisite(s): ENT 121

### **ENT 131 Manufacturing Processes (4)**

Principles of design, development and implementation of manufacturing processes; machine tool operations, metal forming, molding processes and casting. Set-up and operation of metal lathe, mill, drill press, band saw and grinders.

Prerequisite(s): DFT 211 or DFT 101 or INT 105 or 2 years of high school drafting

Lab Fee: \$40.00

### **ENT 204 Engineering Design (3)**

Analysis of machine design. Laboratory work will include design and development of engineering drawings for machine components. Converting engineering drawings into programs using computer simulations and CAM software to test programs and produce programming parts.

Prerequisite(s): ENT 131 and DFT 211

Lab Fee: \$15.00

### **ENT 205 Circuits and Machines (4)**

Self-paced 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

Lab Fee: \$15.00

### **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: \$15.00

### **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 and MTH 121

Lab Fee: \$10.00

### **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 or MTH 120, MTH 140 and 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: \$20.00

### **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): ENT 101 and DFT 214

Pre/Corequisite(s): ENT 131 or ENT 109 and ENT 110 or MAT 110 and MAT 111

Lab Fee: \$15.00

**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 instructor permission

Pre/Corequisite(s): INT 251

Lab Fee: \$30.00

**ENT 231 Six Sigma: Green Belt (5)**

Data-driven approach to problem solving focusing on defect reduction and process improvement. Customer-focused projects using a team approach. Structured sequence of problem-solving techniques. Use of statistics in the decision-making process and validation of success of process improvements. Introduces the five phases of Six Sigma: Define, Measure, Analyze, Improve and Control.

Lab Fee: \$2127.00

**ENT 232 Six Sigma: Brown Belt (6)**

Data-driven approach to problem solving focusing on defect reduction and process improvement. Customer-focused projects using a team approach. Structured sequence of problem-solving techniques. Use of statistics in the decision-making process and validation of success of process improvements. Builds upon Green Belt Certification using the five phases of Six Sigma (Define, Measure, Analyze, Improve and Control) at an intermediate level.

Prerequisite(s): ENT 231

Lab Fee: \$2054.00

**ENT 233 Six Sigma: Black Belt (4)**

Data-driven approach to problem solving focusing on defect reduction and process improvement. Customer-focused projects using a team approach. Structured sequence of problem solving techniques. Use of statistics in the decision-making process and validation of success of process improvements. Builds upon Brown Belt Certification using the five phases of Six Sigma (Define, Measure, Analyze, Improve and Control) at an advanced level.

Prerequisite(s): ENT 231

Lab Fee: \$2201.00

**ENT 270 Engineering Technical Project (3)**

A capstone class in which students will apply the skills acquired in the industrial and engineering courses to design, fabricate, install, document and debug a class designed project of a scale and type normally done in-house by local plants in the areas of engineering and design.

Prerequisite(s): (ENT 131, DFT 211)

Lab Fee: \$20.00

**ENT 294 Special Topics - Circuits (4)**

Detailed study of DC electric circuits and related bilateral devices. Conventional and computer circuit analysis.

Prerequisite(s): ENT 101 and MTH 122

Lab Fee: \$20.00

Terms Offered: Fall

**ENT 298 Special Topics - Digital Switching (4)**

Principles and application of digital systems. Combination and sequential logic from a systems approach. Integrated circuits, digital timing diagrams, and waveforms.

Prerequisite(s): ENT 101 and MTH 140

Lab Fee: \$20.00

Terms Offered: Spring

## (FFC) Fire Fighter Certificate

**FFC 102 Firefighter I Transition (5)**

Bridge course to expand a 36-hour Volunteer Firefighter to a Level I firefighter. Permits a firefighter to enter and operate at a fire from the interior of a building.

Prerequisite(s): CPE 061 or appropriate Compass score and Valid 36-hour Volunteer, FFC 100, NIMS 100 and 700 ICS

Lab Fee: \$96.25

**FFC 292 Volunteer Firefighter (2)**

Basic firefighter course used by Volunteer Fire Departments. Minimum training. SCBA, Hose streams, Fire behavior.

Prerequisite(s): CPE 061, appropriate Compass score, NIMS 100 and 700 ICS

Instructor Permission Required.

Lab Fee: \$96.25

**FFC 297 Fire Fighter I (8)**

Expanded initial firefighter training. Basic and Intermediate level training in all aspects of firefighting for those beginning a career path as a firefighter.

Prerequisite(s): CPE 061 or Equivalent Compass score and NIMS 100, 700 ICS

Instructor Permission Required.

Lab Fee: \$125.00

**FFC 298 Fire Fighter II (8)**

Completes all requirements of a career firefighter. Advanced techniques of fire behavior, hazardous material and rescue.

Prerequisite(s): CPE 061 or appropriate Compass score and FFC 104, NIMS 100 and ICS 700

Instructor Permission Required.

Lab Fee: \$125.00

## (FRN) French

**FRN 111 French I (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 scores

Pre/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, healthcare, ethnicity, rural and urban settlements, economic resources and development, food supply and environmental problems.

Prerequisite(s): CPE 061 and CPE 071 or appropriate Compass scores

Pre/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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/Corequisite(s): ENG 111

## **(GER) German**

### **GER 111 German I (4)**

Study of the vocabulary and structure of the German language; practice in conversation, reading, writing. German culture.

## **(GLG) Geology**

### **GLG 101 Meteorology Atmospheric Sciences (4)**

Become familiar with the atmospheric sciences and its effect on other Earth systems. Recognize and become familiar with atmospheric terminology, weather concepts, weather mapping and forecasting and weather patterns.

Lab Fee: \$20.00

### **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 131, GLG 133 or with permission from the instructor

Instructor Permission Required.

Lab Fee: \$25.00

### **GLG 121 Atmospheric Sciences (4)**

Become familiar with the atmospheric sciences and its effect on other Earth systems. Recognize and become familiar with atmospheric terminology, weather concepts, weather mapping and forecasting and weather patterns.

Lab Fee: \$25.00

### **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: \$25.00

### **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: \$25.00

### **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: \$25.00

### **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: \$25.00

### **GLG 298 Special Topics: Natural Disasters (4)**

This course is an introduction to the geological and natural processes that effect the human civilization in a variety of catastrophic ways. Natural disasters covered will include but not limited to: landslides, volcanism, earthquakes, severe weather, and flooding. Each hazard will be examined in terms of science, prediction, integration and avoidance. Prerequisite(s): CPE 061 or appropriate Compass score.

Prerequisite(s): CPE 061 and or equivalent Compass score

Lab Fee: \$25.00

# (GPH) Graphic Design

## **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: \$20.00

## **GPH 105 Design Fundamentals (3)**

Study of design elements: line, shape, value, texture, and color and space and distance. Two-dimensional designs using media and tools/materials of the graphic designer. Study of the elements of design and design components.

Prerequisite(s): CPE 061

Lab Fee: \$20.00

## **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, and ART 111

Lab Fee: \$20.00

## **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, and ART 111

Lab Fee: \$20.00

## **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, and ART 112

Lab Fee: \$20.00

## **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, and ART 113

Lab Fee: \$20.00

## **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 and ART 112

Lab Fee: \$20.00

## **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, and ART 113

Lab Fee: \$20.00

## **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: \$20.00

## **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 and GPH 212

Lab Fee: \$20.00

## **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 and GPH 201

Lab Fee: \$20.00

## **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: \$20.00

## **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: \$20.00

## **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 and CPE 091

Pre/Corequisite(s): GPH 212

Lab Fee: \$20.00



### **GPH 252 Professional Development II (3)**

Further refinement of individual portfolios from coursework 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 (freelance work, self-promotional piece, digital portfolio, art show). Software: QuarkXPress, Adobe Photoshop, Adobe Illustrator. Prerequisite(s): GPH 251 and CPE 101

Pre/Corequisite(s): GPH 205

Lab Fee: \$20.00

### **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: \$20.00

## **(GST) Geospatial Technologies**

### **GST 101 Introduction to Geospatial Technology (4)**

Introduction to geospatial technologies. Principles, functions, and origins of maps. Concepts of geography. Global reference system. Use of satellites for measurements and navigation.

Prerequisite(s): CPE 062, CPE 091, and ITS 080

Lab Fee: \$15.00

### **GST 120 Introduction to GIS (3)**

Introduction to Geographic Information Systems (GIS). Functionality and capabilities of a GIS. Processing spatial data and solving geospatial problems.

Prerequisite(s): CPE 062, CPE 101, and ITS 103

Lab Fee: \$25.00

### **GST 130 Remote Sensing (3)**

Collection and processing of aerial data; interpretation of aerial photography data. Map analysis. Current technology and Geographic Information Systems (GIS) relationship highlighted.

Prerequisite(s): CPE 103, GST 101, GST 120, and GST 210

Lab Fee: \$50.00

### **GST 210 Georeferencing and Mapping (3)**

Coordinate systems. Surveying and cartography. Acquisition and use of locational data using both continuous and discrete georeferencing methods. Translating data into correct map form.

Prerequisite(s): GST 224

Pre/Corequisite(s): MTH 140

Instructor Permission Required.

Lab Fee: \$25.00

### **GST 224 GIS Data Creation and Management (3)**

Creation and management of geographic information within a Geographic Information System (GIS). Collection of field data. Geospatial data storage. Metadata creation and editing.

Prerequisite(s): GST 101 and GST 120

Lab Fee: \$25.00

### **GST 225 Intermediate GIS (3)**

Higher-level applications of and decision making with ArcGIS software. Advanced analysis tools and techniques for visualizing, creating and managing geographic data within a geographic information system (GIS). Conceptual models and query languages.

Prerequisite(s): CSD 104 and ITS 109

Lab Fee: \$25.00

### **GST 235 Programming for GIS (4)**

Introduction to the basic programming concepts and methodologies for customizing and/or extending the available functions in a Geographic Information System (GIS). Development platforms for GIS: ArcObjects, Google Earth, ArcExplorer, Visual Earth. Programming for geoprocessing. Modifying cartographic objects. Geodatabases.

Pre/Corequisite(s): GST 225

Lab Fee: \$25.00

### **GST 250 Photogrammetry (4)**

Nature of aerial image data. Aerial image interpretation. Stereoscopy and orthoimagery. Vector data. Characteristics of geo-referenced data.

Prerequisite(s): GST 225, STT 264, and DFT 211

Lab Fee: \$50.00

### **GST 270 Advanced Topics in Geospatial Technology (4)**

Use of geospatial technology in business, science, government, education, and research. Modeling and decision making with use of spatial data. Legal and ethical aspects. Trends in geospatial technology.

Prerequisite(s): GST 225 and GST 235

Lab Fee: \$25.00

### **GST 275 GIS Analysis for Intelligence (4)**

The intelligence process. Use of GIS to solve geospatial problems and shape military and civilian operations.

Prerequisite(s): GST 225 and GST 235

Lab Fee: \$25.00

## **(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, creation; and creation and evolution; and evidence for life after death.

Prerequisite(s): minimum GPA of 3.25 and ENG 112

### **HON 292 Literature, Gender & Humanism (3)**

Interdisciplinary study of ethical issues as depicted in great works of literature. Focus is on literature as providing a rich context for humanistic approach to learning more about ourselves and how we ought to live.

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): 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 and 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

### **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 laws; labor law; Fair Labor Standards Act; and occupational health and safety.

Prerequisite(s): HRM 225

### **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

### **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

### **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. Shadowing of a human resource professional.

Prerequisite(s): HRM 230, HRM 235, HRM 240 and HRM 245

## **(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

Pre/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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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.

### **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

Pre/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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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

Pre/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 disciplines including the natural sciences, sociology, psychology, literature, history, religion and philosophy; course content will vary.

Prerequisite(s): ENG 112 and a minimum of 60 credit hours earned

## **(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

Lab Fee: \$15.00

### **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

Lab Fee: \$10.00

### **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

Lab Fee: \$5.00

### **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 and CPE 091

Lab Fee: \$15.00

### **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: \$15.00

### **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: \$25.00

### **INT 140 Industrial Safety (2)**

An introduction to industrial regulatory safety terminology and requirements.

Prerequisite(s): CPE 061

Lab Fee: \$5.00

### **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

Lab Fee: \$15.00

### **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): CPE 091 and INT 150

Lab Fee: \$15.00

### **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: \$30.00

### **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: \$30.00

**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  
Lab Fee: \$15.00

**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 (or high school electronics)

**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: \$30.00

**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: \$15.00

**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): ENT 104 or INT 101  
Lab Fee: \$10.00

**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: \$15.00

**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 120  
Pre/Corequisite(s): INT 125  
Lab Fee: \$20.00

**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  
Pre/Corequisite(s): INT 125  
Lab Fee: \$20.00

**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: \$20.00

**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: \$20.00

**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: \$20.00

**INT 249 Programmable Logic Controllers (Siemens) (3)**

Programming, connecting, and testing Siemens 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  
Lab Fee: \$10.00

**INT 250 Programmable Logic Controllers (3)**

Programming, connecting, and testing PLC's for control of industrial/commercial processes. Programmable Logic Controllers (PLC's). Interfacing with sensors, application of PLC's into a variety of process applications. Utilization of an Amatrol 890-PEC-B trainer in troubleshooting PLC's. Prerequisite(s): INT 150 or ENT 205 (or permission)

### **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

Lab Fee: \$10.00

### **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 and operation of CSCC CIM System.

Prerequisite(s): INT 251

Lab Fee: \$20.00

### **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: \$15.00

### **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: \$20.00

### **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, and INT 255

Lab Fee: \$20.00

### **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): CPE 061

Lab Fee: \$15.00

### **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

Lab Fee: \$20.00

### **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 and ENG 223

Lab Fee: \$20.00

## **(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

### **ITS 081 Beginning Keyboarding (1)**

Proper keyboarding techniques. Correct fingering techniques. Development of speed and accuracy on the keyboard. Office ergonomics and basic electronic file management.

Prerequisite(s): CPE 061

### **ITS 103 Information Technology Basics (3)**

Brief overview of Windows, basic but essential word processing concepts, electronic mail, WWW research techniques and OhioLINK (Windows Concepts, Word 2010). Students with little or no keyboarding experience should expect to take longer to complete assignments.

Prerequisite(s): CPE 061, ITS 080 and ITS 081

### **ITS 106 Introduction to Computers and Networking (2)**

Fundamentals of computers and computer networks. Computer hardware and computer operating systems. Data storage, various input/output devices, computer/Internet security, wired and wireless networks. How the Internet works.

### **ITS 109 Introduction to SQL (3)**

Knowledge and skills required to write basic transact - SQL queries. Use of logical and physical data base design. Data integrity concepts. Associations between tables.

Prerequisite(s): CPE 062, CPE 101 and ITS 12D

Lab Fee: \$15.00

### **ITS 115 HTML and XHTML (4)**

Use HTML and XHTML to develop web sites without the aid of web page composition software.

Prerequisite(s): CPE 062, CPE 091 and ITS 080

Lab Fee: \$15.00

**ITS 118 XML Web Services (4)**

Overview of the structure and programming techniques of XML.  
Prerequisite(s): CPE 101 and ITS 115 or ITS 107  
Lab Fee: \$15.00

**ITS 12A Windows Concepts (2)**

Familiarization with the mouse and a graphical operating environment. Topics include all major aspects of Microsoft Windows 7. Knowledge of a personal computer keyboard strongly recommended.  
Prerequisite(s): CPE 061, ITS 080 and ITS 081

**ITS 12D Beginning Database (1)**

Basic database manipulation (e.g. creating, updating, and generating reports) via packaged software (Access 2007). Students with minimal computer and keyboarding skills will take longer in completing the assigned tasks.  
Prerequisite(s): CPE 061, ITS 080 and ITS 081

**ITS 12K Keyboarding/Word Processing (2)**

Proper keyboarding techniques. Creating and editing documents using packaged word processing software (Word 2010). Strongly recommended for students who have few or no keyboarding skills. Can be used as a substitute for ITS 12W.  
Prerequisite(s): CPE 061 and ITS 080

**ITS 12P Presentation Graphics (1)**

Techniques of visual presentation development via the use of a presentation software package (PowerPoint 2007). Students with minimal computer and keyboarding skills will take longer in completing the assigned tasks.  
Prerequisite(s): CPE 061, ITS 080, and ITS 081

**ITS 12S Beginning Spreadsheet (1)**

Basic creation and manipulation of data within an electronic spreadsheet (Excel 2007), planning and creating workbooks, using formulas and functions, creating charts and formatting spreadsheet objects. Students with minimal computer and keyboarding skills will take longer in completing the assigned tasks.  
Prerequisite(s): CPE 061, ITS 080 and ITS 081

**ITS 12W Beginning Word Processing (1)**

Basic creation and editing of documents using packaged word processing software (Word 2007). Keyboarding skills strongly recommended. Students with minimal computer and keyboarding skills will take longer in completing the assigned tasks. ITS 12K, which teaches keyboarding skills and beginning word processing skills, may be substituted for ITS 12W.  
Prerequisite(s): CPE 061, ITS 080 and ITS 081

**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 processing 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.

**ITS 131 Computer and Internet Security I (2)**

Overview of computer and Internet security terms and concepts. Exposure to foundational computer-based security threats. Basic operating-system and application software security settings and tools.  
Prerequisite(s): ITS 080 skills

**ITS 132 Computer and Internet Security II (2)**

Advanced computer and Internet security terms and concepts; security threats. Operating-system and application-software security settings and tools.  
Prerequisite(s): ITS 131

**ITS 14D Intermediate Database (2)**

Intermediate database manipulation techniques using packaged software (Access 2007). Analyzing data, forms, queries, reports, macros, objects, modules, etc.  
Prerequisite(s): ITS 12D

**ITS 14S Intermediate Spreadsheet (2)**

Intermediate spreadsheet manipulation techniques using packaged software (Excel 2007). Graphing, analyzing, integrating and automating functions and formulas.  
Prerequisite(s): ITS 12S

**ITS 14W Intermediate Word Processing (2)**

Formatting issues, intermediate and advanced; automating procedures like mail-merge and macros; exchanging data between applications. (Word 2007)  
Prerequisite(s): ITS 12K, ITS 12W or ITS 103

**ITS 230 Introduction to Web Design (3)**

Study of web page design. Basic HTML coding and use of Dreamweaver CS5 with emphasis on aesthetics of web page design.  
Prerequisite(s): CPE 062, ITS 080 and ITS 081  
Lab Fee: \$50.00

**ITS 231 Web Page Multimedia (3)**

Enhance web pages with images and animation using Flash CS4.  
Prerequisite(s): ITS 230  
Lab Fee: \$50.00

## (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 105, ENG 111, MST 105 or ITS 12W  
Instructor Permission Required.

**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 105, ENG 111, ITS 12W, MST 105 and PSY 111 or instructor permission for non LPN program students  
Instructor Permission Required.  
Lab Fee: \$76.00

### **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 and PSY 111  
Instructor Permission Required.

### **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 and NUR 114

### **LPN 151 Pediatric Nursing (3)**

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 and PSY 223 or PSY 221  
Pre/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 healthcare facility settings. Course consists of 40 hours lecture, 30 hours college lab, and 30 hours clinical. Prerequisite(s): BIO 105, ENG 111, ITS 12W, MST 105, MST 181 or equivalent within past 2 years and PSY 111  
Pre/Corequisite(s): LPN 108, LPN 125, NUR 114 and LPN 130  
Instructor Permission Required.  
Lab Fee: \$114.00  
Student Liability Fee: \$20.00

### **LPN 171 Fundamentals of Nursing II (6)**

Role of the practical nurse in the maintenance and promotion of health; application of medical and surgical aspesis 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. 20 lecture, 20 lab and 90 clinical hours. Prerequisite(s): LPN 108, LPN 125, LPN 130, LPN 160 and NUR 114  
Pre/Corequisite(s): LPN 146  
Lab Fee: \$142.00

### **LPN 182 Women's Health and Obstetric Nursing (2)**

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. Course consists of 20 hours

of lecture and 15 hours of clinical experience in a maternal/child healthcare setting.

Prerequisite(s): LPN 125, LPN 130, NUR 114 and LPN 108  
Pre/Corequisite(s): LPN 146 and LPN 160

### **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 90 lecture and 150 clinical hours.

Prerequisite(s): LPN 146, LPN 151, LPN 171 and LPN 182  
Lab Fee: \$90.00

## **(LSC) Logistics and Supply Chain Management**

### **LSC 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.

Prerequisite(s): CDL permit with all required tests completed, Valid Ohio drivers license, DOT physical and drug screen and Industry-standard motor vehicle record  
Lab Fee: \$3798.00

### **LSC 210 Purchasing and 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.

Prerequisite(s): MGT 105 and MGT 112

### **LSC 220 Logistics and 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

Pre/Corequisite(s): MGT 266 or STT 264

### **LSC 272 Operations and 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.  
Prerequisite(s): MGT 112 and STT 264 or MGT 266

### **LSC 275 Inventory and 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

## **(MAS) Medical Assisting**

### **MAS 102 Medical Law and Ethics (2)**

Ethical and legal issues relevant to the medical office employee.  
Prerequisite(s): MST 101 and MST 105

### **MAS 103 Medical Administrative Office I (3)**

Introduction to administrative duties required of the medical assistant. Telephone and other electronic communication, appointment scheduling, the medical record, written communication, filing systems and basic office management.  
Prerequisite(s): MST 105  
Pre/Corequisite(s): ENG 111  
Instructor Permission Required.  
Lab Fee: \$40.00

### **MAS 104 Exam Room Procedures I (4)**

Overview of medical assisting profession. Clinical knowledge, skills, and behaviors expected of medical assistant including therapeutic and professional communication, patient history and exam, anthropometric measures and vital signs, infection control, medical and surgical asepsis, safety and emergency practices and coping skills.  
Prerequisite(s): MST 105, BIO 105 and MST 101  
Instructor Permission Required.  
Lab Fee: \$75.00

### **MAS 113 Medical Administrative Office II (3)**

Financial aspects of the office, ICD-9 and CPT coding, managed care/medical insurance, reimbursement procedures and managing patient accounts.  
Prerequisite(s): MAS 103  
Instructor Permission Required.  
Lab Fee: \$40.00

### **MAS 114 Exam Room Procedures II (4)**

Medication administration and medical office emergencies. Specialties of pediatrics, obstetrics and gynecology, otolaryngology, ophthalmology, orthopedics, cardiology, pulmonary medicine, urology, gastroenterology and dermatology.  
Prerequisite(s): MAS 104 and CPE 101 with a grade of C or better or equivalent Compass score  
Pre/Corequisite(s): MAS 116  
Instructor Permission Required.  
Lab Fee: \$75.00

### **MAS 115 Laboratory Procedures for the Medical Office (2)**

Diagnostic physician office laboratory procedures: collection and processing of specimens, laboratory safety, microbiology, urinalysis, hematology, serology and blood chemistry.  
Pre/Corequisite(s): MLT 116 and MLT 117  
Instructor Permission Required.  
Lab Fee: \$75.00

### **MAS 116 Pharmacology for the Medical Office (2)**

Principles of pharmacology for the medical assistant. Drug classifications, therapeutic actions, side effects and interactions. Role of medical assistant in medication administration. Dosage calculations.  
Prerequisite(s): BIO 105, MST 105, and CPE 101 with a grade of C or better or equivalent Compass score

### **MAS 117 Clinical Directed Practice (5)**

Integration of content and competencies covered in the Medical Assistant certificate program. Two hundred fifty (250) hours total must be completed in an outpatient family practice office.  
Prerequisite(s): MAS 113, MAS 114, MAS 115, MAS 116, MLT 116, MLT 117, MST 171, ENG 111 and PSY 111  
Corequisite(s): MAS 118  
Instructor Permission Required.  
Student Liability Fee: \$20.00

### **MAS 118 Clinical Perspectives Seminar (1)**

Forum for shared learning and problem solving of directed practice experiences. Resume preparation, interviewing skills, employment laws.  
Prerequisite(s): MAS 113, MAS 114, MAS 115, MAS 116, MLT 116, MLT 117, MST 171, ENG 111 and PSY 111  
Corequisite(s): MAS 117  
Instructor Permission Required.

### **MAS 210 Medical Assisting Exam Review (2)**

Preparation for the American Association of Medical Assistants (AAMA) national certification examination.  
Pre/Corequisite(s): MAS 117 and MAS 118 or instructor permission



# (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.

## **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

## **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 115 Customer Relations (3)**

Philosophy, purpose, techniques, and the principles of management of excellent customer service and relations. Communication skills. Integrated customer relations technologies. Customer related complaints. Problem-solving skills.

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): CPE 061 and ITS 080

Lab Fee: \$15.00

## **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 105 or MGT 106 or MGT 112

## **MGT 214 Small Business Theory and Practice (4)**

Small business and entrepreneurship. Decision for self-employment 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 and MGT 112

Pre/Corequisite(s): MGT 270

## **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): ENG 112 or ENG 135

## **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 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): CPE 101, 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, finance and team dynamics and development.

Prerequisite(s): MGT 105, MGT 112, MKT 200 and ITS 103

Lab Fee: \$25.00

# (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 and 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 and 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 and ITS 103 or GPH 100

Lab Fee: \$20.00

### **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 and 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 200

## **(MLT) Medical Laboratory Technology**

### **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

Corequisite(s): MLT 102

Instructor Permission Required.

### **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

Corequisite(s): MLT 101

Instructor Permission Required.

Lab Fee: \$55.00

### **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, CPE 101 or appropriate Compass scores  
Instructor Permission Required.

Student Liability Fee: \$20.00

### **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

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

Corequisite(s): MLT 116

Lab Fee: \$35.00

### **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 and CPE 061 or equivalent  
Compass scores

Corequisite(s): MLT 124

Instructor Permission Required.

### **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 and CPE 061 or equivalent  
Compass score

Corequisite(s): MLT 123

Instructor Permission Required.

Lab Fee: \$105.00

### **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 and CPE 061 or equivalent  
Compass score

Corequisite(s): MLT 126

Instructor Permission Required.

### **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 and CPE 061 or equivalent  
Compass scores

Corequisite(s): MLT 125

Instructor Permission Required.

Lab Fee: \$100.00

**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

Corequisite(s): MLT 132

Instructor Permission Required.

**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

Corequisite(s): MLT 131

Instructor Permission Required.

Lab Fee: \$105.00

**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, and CPE 061 or equivalent Compass score

Corequisite(s): MLT 136

Instructor Permission Required.

**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 and CPE 061 or equivalent Compass score

Corequisite(s): MLT 135

Instructor Permission Required.

Lab Fee: \$85.00

**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): MLT 125, MLT 126, ENG 111, BIO 105 and ITS 103

Corequisite(s): MLT 212

Instructor Permission Required.

Student Liability Fee: \$20.00

**MLT 212 Immunology Laboratory (1)**

Techniques of agglutination, precipitation, flocculation, immunodiffusion, immunofluorescence, ELISA and EIA.

Prerequisite(s): MLT 125 and MLT 126

Corequisite(s): MLT 211

Instructor Permission Required.

Lab Fee: \$105.00

**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): BIO 105, ENG 111, ITS 103, MLT 123 and MLT 124

Corequisite(s): MLT 214

Instructor Permission Required.

**MLT 214 Medical Microbiology II Laboratory (3)**

Techniques to isolate, identify, and evaluate the presence of clinically significant microorganisms.

Prerequisite(s): MLT 123 and MLT 124

Corequisite(s): MLT 213

Instructor Permission Required.

Lab Fee: \$105.00

**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): BIO 105, ENG 111, ITS 103, MLT 125 and MLT 126

Corequisite(s): MLT 224

Instructor Permission Required.

**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 and MLT 126

Corequisite(s): MLT 223

Instructor Permission Required.

Lab Fee: \$70.00

**MLT 226 Immunochemistry (4)**

Responsibility of blood bank work, blood collection and processing. Genotypes and phenotypes of ABO and Rh blood group systems.

Prerequisite(s): MLT 211 and MLT 212

Corequisite(s): MLT 227

Instructor Permission Required.

**MLT 227 Immunochemistry Laboratory (4)**

Typing techniques, principles, procedures; crossmatch and panel screening; atypical antibody identification and quality control.

Prerequisite(s): MLT 211 and MLT 212

Corequisite(s): MLT 226

Instructor Permission Required.

Lab Fee: \$145.00

**MLT 270 MLT Review & Update (4)**

Review and update of: urinalysis, hematology, clinical chemistry, medical microbiology, immunology, immunochemistry.

Prerequisite(s): All prior coursework required prior to graduation.

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 prior MLT coursework

Corequisite(s): MLT 290

Instructor Permission Required.

### **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 prior MLT coursework

Corequisite(s): MLT 280

Instructor Permission Required.

## **(MST) Multi-Skilled Health Care**

### **MST 101 Introduction to Health Care Delivery (3)**

Introduction to healthcare delivery system including history, scope of services, providers, settings, financing, professionalism, individual healthcare 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 body systems, identification of basic human needs, written 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 105 Medical Terminology (3)**

Language of medicine. Medical prefixes, suffixes, root words, singular/plural forms constructed to form medical terminology. Spelling and pronunciation of terms related to pathology, diagnostic and treatment procedures, pharmacology and specialists for body systems. Standard medical abbreviations.

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.

Pre/Corequisite(s): MST 105 and BIO 105 or BIO 121

Lab Fee: \$15.00

### **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. BCI background check required.

Prerequisite(s): CPE 061 or appropriate Compass score

Lab Fee: \$25.00

Student Liability Fee: \$20.00

### **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 within past two years.

Pre/Corequisite(s): EMS 171 or CPR or BLS certification

Instructor Permission Required.

Lab Fee: \$25.00

Student Liability Fee: \$20.00

## **(MTH) Math**

### **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 and volume, scientific notation & significant figures, metric/English conversions, geometry applications, graphing applications and vector forces.

Prerequisite(s): CPE 061

Pre/Corequisite(s): CPE 102

Lab Fee: \$10.00

### **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 equivalent Compass score

### **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 and ENT 101

Pre/Corequisite(s): MTH 120 or MTH 121

Lab Fee: \$10.00

### **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

Pre/Corequisite(s): MTH 140

Lab Fee: \$10.00

**MTH 120 College Algebra IA (5)**

Algebraic expressions; coordinates and graphs, transformation and composition of functions, inverse functions, polynomial and rational functions, complex numbers, synthetic and long division, remainder and factor theorem, exponential and logarithmic functions. 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 and CPE 103 or appropriate Compass scores

**MTH 121 College Algebra I (3)**

Algebraic expressions; coordinates and graphs, transformation and composition of functions, inverse functions, polynomial and rational functions, complex numbers, synthetic and long division, remainder and factor theorem, exponential and logarithmic functions. Prerequisite(s): CPE 061 and CPE 103 or appropriate Compass scores

**MTH 122 College Algebra II (3)**

Continuation of the concepts begun in MTH 121 and includes additional topics in systems of equations and inequalities, analytic geometry, matrices and determinants, Gauss-Jordan, Cramer's Rule, sequences and series, permutations, combinations and probability. Prerequisite(s): MTH 120, MTH 121, or 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): H.S. geometry and MTH 120 and MTH 121 or 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, MTH 121 or appropriate Compass score

**MTH 221 Calculus I (5)**

Functions, limits, L'Hospital's Rule, differentiation rules, continuity and differentiability of trigonometric and logarithmic/exponential functions, applications of the derivatives. Prerequisite(s): MTH 122, MTH 140 or appropriate Compass score

**MTH 222 Calculus II (5)**

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. Lab Fee: \$50.00

**MUS 101 Music Theory I (3)**

Musical notation, scales, modes, tonality, key, intervals and transposition, chords, cadences, non-harmonic tones, melodic organization.

**MUS 102 Music Theory II (3)**

Texture reduction, voice-leading practices for two voices, voice-leading practices for four voices, harmonic progressions, dominant seventh chords and leading-tone chords. Prerequisite(s): MUS 101

**MUS 103 Music Theory III (3)**

Non-dominant seventh chords, secondary dominant and leading-tone chords, modulation, binary and ternary forms. Prerequisite(s): MUS 102

**MUS 111 Sight Singing and Dictation I (2)**

Aural skills including; interval recognition, key/modality recognition, chord recognition, meter recognition, rhythmic notation and melodic notation. Identifying and singing intervals within the octave, triad recognition, tonic, subdominant and dominant chord recognition, singing and notating melodies in simple and compound meters.

**MUS 112 Sight Singing and Dictation II (1)**

Rhythmic dictation involving rests and subdivisions in simple and compound meters; melodic singing and dictation with an emphasis on the intervals of the sixth and seventh, and outlines of tonic, subdominant and dominant triads; harmonic dictation of tonic, subdominant and dominant chords in root, 1st and 2nd inversions.

Prerequisite(s): MUS 111

**MUS 113 Sight Singing and Dictation III (1)**

Singing and dictation of the tritone and compound intervals; harmonic dictation of the dominant seventh chord, the supertonic and submediant chords in inversions; singing and dictation of melodies with borrowed divisions.

Prerequisite(s): MUS 112

**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

Lab Fee: \$50.00

**MUS 150 Clark State Choir (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.

Lab Fee: \$15.00

**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.

Lab Fee: \$50.00

**MUS 152 Applied Music II (2)**

Private instrument instruction focusing on the fundamentals of instrument performance skills. One hour of private instruction per week. A minimum of 13 hours of practice time required per week.

Lab Fee: \$100.00

**MUS 160 Applied Voice (1)**

Private voice instruction focusing on the fundamentals of voice production, song literature, interpretation and performance skills.

Lab Fee: \$50.00

**MUS 170 Applied Piano (1)**

Private piano instruction focusing on the fundamentals of piano performance skills.

Lab Fee: \$50.00

# (NTK) Networking

**NTK 176 PC/Network Essentials I (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 two-course sequence that covers A+ certification objectives.

Prerequisite(s): CPE 061 and ITS 080

Lab Fee: \$50.00

**NTK 178 PC/Network Essentials II (6)**

Intensive introduction to multitasking 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 two-course sequence that covers the A+ certification objectives.

Prerequisite(s): CPE 091 and NTK 176 or Instructor Permission

Lab Fee: \$50.00

**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 and NTK 178

Lab Fee: \$50.00

**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

Lab Fee: \$50.00

**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 and NTK 202

Lab Fee: \$50.00

**NTK 231 Convergence Technology I (4)**

Convergence Technology terms and concepts. Networking fundamentals, TCP/IP networking basics, merging of voice and data traffic. Topics includes: VoIP, and systems management. This is the first course, in a two course sequence, that covers the CompTIA Convergence+ certification exam objectives.

Prerequisite(s): NTK 176 or instructor permission

Lab Fee: \$50.00

### **NTK 232 Convergence Technology II (4)**

Hands-on experience with convergence equipment and software. Planning, installing, configuring, managing, optimizing, and troubleshooting voice, video and data infrastructures. Additional topics include: wireless technologies, configuration, and security. This is the second, in a two-course sequence, that covers the CompTIA certification exam objectives.

Prerequisite(s): NTK 176 or Instructor Permission  
Lab Fee: \$50.00

### **NTK 240 Administering Linux I (5)**

Discussion of the Linux file system. Maintenance tasks, customizing the GUI interface, Linux commands. File access permissions, printing commands and utilities. Managing user accounts.

Prerequisite(s): CPE 101 and NTK 178 or CSD 104 or CSD 105  
Lab Fee: \$50.00

### **NTK 270 Administering Microsoft Client (5)**

Hands-on experience with the Microsoft Client operating system. Installing, configuring, optimizing and troubleshooting. Course covers Microsoft certification objectives.

Prerequisite(s): CPE 101 and NTK 178  
Lab Fee: \$50.00

### **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  
Lab Fee: \$50.00

### **NTK 282 Introduction to High Performance/Clustered Computing (4)**

Introduction to high performance/clustered computing (HP/CC). Discussion of high performance/clustered computing jobs and career opportunities. Review of high performance/clustered computing terms and concepts. Identification of high performance/clustered computing vendors and technologies. Research on clustered computer systems.

Prerequisite(s): NTK 178  
Instructor Permission Required.  
Lab Fee: \$50.00

### **NTK 284 High Performance/Clustered Computing Design (4)**

Course in high performance/clustered computing (HP/CC). Methods and processes used to create high performance/clustered computer systems. Evaluating clustered computing hardware and software options. Installing and configuring a high performance/clustered system.

Prerequisite(s): NTK 282  
Lab Fee: \$50.00

### **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): MGT 200, ENG 112 or ENG 135 and NTK 201 or NTK 255 or NTK 270 or MGT 211

## **(NUR) Nursing**

### **NUR 110 Nursing Academic Success Seminar (1)**

Knowledge and skills needed for academic success in nursing program and life-long learning. Priorities in learning; study and time-management skills; test-taking skills. 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, CPE 101 and or equivalent Compass score

### **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 121, BIO 122, BIO 123 and MST 105

### **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): BIO 121, MST 105 and MST 181 within past two years or its equivalent  
Pre/Corequisite(s): BIO 122, ITS 103, NUR 114 and NUR 110  
Instructor Permission Required.  
Lab Fee: \$135.00  
Student Liability Fee: \$20.00

### **NUR 171 Nursing II (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 and NUR 110  
Pre/Corequisite(s): BIO 123  
Lab Fee: \$122.00

### **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 and NUR 171  
Pre/Corequisite(s): NUR 120  
Lab Fee: \$97.00

**NUR 175 Transition LPN 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 123, ITS 103, NUR 114 and Current valid Ohio licensure as a practical nurse

Corequisite(s): NUR 200

Instructor Permission Required.

Lab Fee: \$250.00

**NUR 185 Transition Paramedic to Registered Nursing (10)**

Transition to the role of the associate degree nurse. Integrative concepts in nursing. Refine previous learning. Theoretical knowledge to provide ethical, culturally competent and holistic care for adults. Prevention of illness and the maintenance, promotion, and restoration of health. Problem solving and critical thinking in nursing. Consists of 60 classroom hours, 20 lab hours, and 90 clinical hours.

Prerequisite(s): BIO 123, BIO 131, ITS 103, NUR 114 and PSY 223

Pre/Corequisite(s): NUR 120

Instructor Permission Required.

Lab Fee: \$268.00

Student Liability Fee: \$20.00

**NUR 191 Associate Degree Equivalency for LPN Outcomes (20)**

Practical Nurse technical learning outcomes. Equivalent to 30% of the technical nursing credits in an AD nursing program; statewide course CTNUR001. LPN's entering Clark State's Transition to RN Nursing program are awarded articulated credit for this course after successful completion of NUR 175, Ohio Nursing Articulation Model (ONAM) course and Clark State's program specific module.

Prerequisite(s): NUR 175 and Completion of program specific module, current Ohio license to practice as an LPN, completion of pre-licensure PN education program approved by OBN

**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): ENG 112 and NUR 170 or NUR 185 (or Instructor permission)

Instructor Permission Required.

**NUR 265 Nursing VIII (5)**

Health promotion; emergency care concepts; care of adult clients with complex liver dysfunction, cardiovascular, neurologic and multi-system disorders; and children with congenital cardiac; neurologic disorders; ethical; legal; and professional practice issues in acute and community settings. Consists of 40 classroom and 30 clinical hours.

Prerequisite(s): NUR 200, NUR 274, NUR 275 and NUR 276

Corequisite(s): NUR 266 and NUR 267

**NUR 266 Directed Nursing Practice (2)**

Manage nursing care of groups of clients; progress toward transition from student to professional nurse. 108 directed practice hours in clinical setting under supervision of registered nurse preceptor.

Prerequisite(s): NUR 200, NUR 274, NUR 275 and NUR 276

Corequisite(s): NUR 265 and NUR 267

**NUR 267 Nursing VII (4)**

Emphasis placed on growth and development of adults; gynecologic, immunologic and endocrine disorders; gerontologic nursing; management concepts; health care delivery systems; and ethical, legal, and professional practice issues. Application of the nursing process when caring for clients in the extended care facility. Consists of 30 classroom and 30 clinical hours.

Prerequisite(s): NUR 274, NUR 275, NUR 276 and NUR 200

Corequisite(s): NUR 265 and NUR 266

**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 and PSY 223 and NUR 120 or NUR 175 and NUR 172, NUR 175 or NUR 185

Pre/Corequisite(s): NUR 275

Lab Fee: \$36.00

**NUR 275 Nursing V (5)**

Application of nursing process with mental health need of clients. Therapeutic communication techniques, psychiatric treatment modalities and community resources in prevention and treatment of common emotional and behavioral disorders. Consists of 30 classroom and 60 clinical hours.

Prerequisite(s): BIO 123 and BIO 131 and NUR 120 or NUR 175 and NUR 172, NUR 175 or NUR 185

Pre/Corequisite(s): NUR 274

Lab Fee: \$36.00

Student Liability Fee: \$20.00

**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, and PSY 223 and NUR 120 or NUR 175 and NUR 172, NUR 175 or NUR 185

Lab Fee: \$120.00

Student Liability Fee: \$20.00



### **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. Emphasis placed on current NCLEX-RN test plan. Consists of 20 classroom hours.

Prerequisite(s): NUR 265, NUR 266 and NUR 267

Lab Fee: \$72.00

## **(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. Minimum speed of 35 gwpm required. Prerequisite(s): CPE 062, or equivalent Compass score, ITS 080, and ITS 081 with a grade of A

### **OAD 102 Document Production II (5)**

Production of complex business correspondence, reports and tables, using Microsoft Word/Excel software. Introduction to desktop publishing; emphasis on speed and accuracy. Entry speed: 40 gwpm minimum expected.

Prerequisite(s): OAD 101 or proficiency test

### **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 248 Basic Medical Machine Transcription (4)**

Introduction to machine transcription and production of medical documents.

Pre/Corequisite(s): OAD 101, BIO 105 and MST 105 or 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 medical office management software.

Prerequisite(s): OAD 102, OAD 135, OAD 140, OAD 248 and MST 105 or 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): OAD 102, OAD 135, OAD 140, ENG 221, ITS 12D, ITS 12P and ITS 12S

### **OAD 270 CPT-Coding (5)**

Introduction to ambulatory coding and payment systems emphasizing CPT-4 coding.

Prerequisite(s): BIO 105 and MST 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.

Prerequisite(s): BIO 105 and MST 105

### **OAD 275 Medical Coding Trends and Issues (4)**

Policies, forms, technology, and processes associated with medical billing protocol. Medicare information. Reimbursement. Health-care management policies. Pharmacology facts, rules, and guiding principles.

Pre/Corequisite(s): OAD 270 and OAD 272

### **OAD 276 Advanced Medical Coding (5)**

Coding experience using ICD-9-CM and CPT numeric representation. Specialized areas of coding. Certifications related to specialty areas.

Prerequisite(s): OAD 270 and OAD 272

### **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 249 and OAD 256 or OAD 260; Instructor 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.

### **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.

**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.

**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.

**PED 145 Intermediate Tennis (1)**

Advanced skills in forehand, backhand shots and serving. Approach shots, net play, backhand game, drop and chop shots. Advanced rules, strategies and tennis etiquette.

**PED 151 General Physical Conditioning (1)**

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.

**PED 153 Yoga for Beginners (1)**

Reducing stress through focused breathing and relaxation exercises using meditation techniques. Graded S/U.

**PED 154 Yoga II (1)**

Using Yoga and meditation techniques to reduce stress.

Prerequisite(s): PED 153

**PED 160 Beginning Basketball (1)**

Shooting, passing, dribbling, and defense along with game play. Includes equipment, rules, terms, scoring and etiquette of basketball.

**PED 162 Intermediate Basketball (1)**

Shooting, passing, dribbling, and defense along with game play. Includes equipment, rules, terms, scoring and etiquette of basketball.

**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.

Lab Fee: \$20.00

**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.

Lab Fee: \$20.00

**PED 295 Special Topics: Beginning Scuba Diving (1)**

This is the academic and confined water training courses required to become a PADI Open Water Diver. The course consists of diving physics and physiology, dive communication skills, dive equipment knowledge and use, safety rules and problem management. The required lab develops general dive skills required for certification. Open-water certification is available at an additional cost. One lecture per week, three - four hour lab session per quarter.

Prerequisites: Minimum age is 15 years old. Certain medical conditions could preclude participation. Must be able to swim 200 yards and float for 10 minutes.

Lab Fee: \$12.00

## (PGR) Personal Growth

**PGR 101 Introduction to College Success (2)**

This course will assist students in successfully navigating the Clark State college environment. Topics covered include: campus resources, campus technology, academic planning and time management. This course is open to all Clark State students but is strongly recommended for first quarter students.

**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.

**PGR 153 College Survival Skills (3)**

To provide students with an understanding of the tools needed to become a successful student and to identify goals and strategies to develop into self-motivated independent learners; and to identify goals and strategies for time management, studying, note taking and test taking.

Lab Fee: \$10.00

**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 computer-aided instruction.

Prerequisite(s): CPE 062 and or appropriate compass score

**PGR 155 Personal Growth, Part II (3)**

Identifying feelings; dealing with anger, worry, lack of self control, and other emotions that interfere with learning; being socially responsible.

**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.

Lab Fee: \$9.00

### **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.

### **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.

### **PGR 195 Campus Leadership (1)**

Practical approach to student leadership situations to increase technical skills involved in campus organizations. Graded S/U.

### **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.

### **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.

### **PGR 250 Exploring Our Sexualities (3)**

Analysis of the impact of social and cultural values and norms on human sexuality.

Pre/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 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.

Prerequisite(s): Grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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.

### **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, analyze and evaluate basic inductive and deductive arguments.

Prerequisite(s): Grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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 categorical syllogisms.

Prerequisite(s): Grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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

Pre/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

Pre/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

Pre/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, Brahman, 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

Pre/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

Pre/Corequisite(s): ENG 112

# (PHO) Photography

## **PHO 100 Basic Photography for Law Enforcement (3)**

An introductory course in the fundamentals of digital photography for law enforcement.

Prerequisite(s): CPE 061

Lab Fee: \$75.00

## **PHO 111 Photography I (3)**

An introductory course in the fundamentals of digital black and white photography and printing.

Prerequisite(s): CPE 061

Lab Fee: \$50.00

## **PHO 112 Photography II (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: \$50.00

## **PHO 121 Color Photography I (3)**

An introductory course using 35mm cameras, color negative/positive films and the fundamentals of color developing and printing.

Prerequisite(s): PHO 111

Lab Fee: \$50.00

## **PHO 122 Color Photography II (4)**

A continuation of Color Photography I. Emphasis placed upon 35mm 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: \$50.00

## **PHO 124 Photography Portfolio (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 and 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. Additional time will be spent learning the affiliated software to finish the photographs.

Prerequisite(s): CPE 061 or appropriate Compass score

Lab Fee: \$50.00

## **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: \$50.00

## **PHO 132 Digital Photography III (3)**

A continuation of basic digital imaging emphasis on using skills gained in PHO 131. Introduction to commercial software and application of software.

Prerequisite(s): PHO 131

## **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 121, and PHO 124

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 and or equivalent Compass score

Corequisite(s): CPE 071

Lab Fee: \$20.00

## **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 equivalent Compass scores

Pre/Corequisite(s): ENG 111

Lab Fee: \$20.00

## **PHY 111 Physics I (4)**

Mechanics; accelerated motion; work, energy, and power; conservation of energy and momentum; static equilibrium; mechanical properties of matter, stress and strain.

Prerequisite(s): MTH 120 or MTH 121

Pre/Corequisite(s): MTH 140 or ENT 101 and ENG 111

Lab Fee: \$20.00

## **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 equivalent Compass score, PHY 111 and MTH 140

Pre/Corequisite(s): ENG 111

Lab Fee: \$20.00

## **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 equivalent Compass score, PHY 112 and MTH 140

Corequisite(s): ENG 111

Lab Fee: \$20.00

### **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, CPE 101 and/or equivalent Compass score

Corequisite(s): ENG 111

Lab Fee: \$20.00

### **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): PHY 110 or PHY 111

Pre/Corequisite(s): ENG 111 and MTH 221

Lab Fee: \$20.00

### **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

Pre/Corequisite(s): MTH 222 and ENG 112

Lab Fee: \$20.00

### **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, diffraction and modern physics. Use of calculus in interpreting physical phenomena.

Prerequisite(s): PHY 251

Pre/Corequisite(s): MTH 223

Lab Fee: \$20.00

## **(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 equivalent Compass score

Pre/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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score

Pre/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

Pre/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

Pre/Corequisite(s): CPE 071

### **PSY 112 Psychology II (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

Pre/Corequisite(s): ENG 111

### **PSY 218 Introduction to Educational Psychology (5)**

Major theories of learning, development, and motivation in an educational setting. Exploration of the similarities and differences in student learning, types of instructional strategies, factors that affect student's learning and development. Principles of assessment strategies including design, implementation and evaluation.

Prerequisite(s): EDU 110, ENG 111 and ENG 112

### **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

Pre/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 and ENG 111

Pre/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

Pre/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 scores

Pre/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 or equivalent Compass score

Pre/Corequisite(s): ENG 111, PTA 110, BIO 118 and BIO 121

Instructor Permission Required.

Lab Fee: \$10.00

### **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 118, BIO 121, PTA 110, PTA 120 and MST 105

Pre/Corequisite(s): BIO 122, BIO 230 and PSY 111

Lab Fee: \$10.00

### **PTA 146 PTA Procedures II (5)**

Pathology, data collection, and PT intervention for cardiopulmonary, lymphatic, immune, endocrine/metabolic integumentary, gastrointestinal, genitourinary and respiratory disorders; positioning, wheelchair and bed mobility transfers. Application of heat and cold, massage and traction. Professional behavioral development.

Prerequisite(s): BIO 122, BIO 230, PTA 145 and ENG 111

Pre/Corequisite(s): PTA 160, ENG 112 and BIO 123

Lab Fee: \$25.00

### **PTA 160 PTA Rehabilitation I (6)**

Pathology, data collection and PT intervention for orthopedic and musculoskeletal disorders; positioning, bed mobility, transfers, gait training and therapeutic exercise. Professional behavioral development.

Prerequisite(s): BIO 122, BIO 230, PTA 145 and ENG 111

Pre/Corequisite(s): BIO 123, PTA 146 and ENG 112

Lab Fee: \$10.00

### **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. Professional behavioral development.

Prerequisite(s): PTA 146 and PTA 160

Lab Fee: \$30.00

### **PTA 245 PTA First-Year Capstone (1)**

First year capstone; includes goniometry, manual muscle testing, wheelchair mobility, transfers, gait training, exercise design, clinical reasoning, communication and professional behavioral development.

Prerequisite(s): PTA 110, PTA 120, PTA 145, PTA 146 and PTA 160

Pre/Corequisite(s): PTA 241

### **PTA 260 PTA Rehabilitation II (6)**

Pathology, data collection and PT intervention for neurological disorders; positioning, bed mobility, transfers, gait training and therapeutic exercise. Normal motor development and motor control. Professional behavioral development.

Prerequisite(s): PTA 146, PTA 160, PSY 223, PTA 241 and PTA 245

Pre/Corequisite(s): PTA 281 and PTA 291

Lab Fee: \$10.00

### **PTA 265 PTA Rehabilitation III (6)**

Adult and pediatric orthopedic and neurological impairments requiring advanced treatment concepts. Prosthetics, orthotics, adaptive seating. Chronic pain. Environmental assessment. Professional behavioral development.

Prerequisite(s): PTA 260

Pre/Corequisite(s): PTA 282 and PTA 292

Lab Fee: \$10.00

### **PTA 270 PTA Trends and Issues (2)**

Current trends in practice. Health care financing. Interpersonal communications. Contracts. Supervisory/management skills. Ethical issues. Professional behavioral development.

Prerequisite(s): PTA 110, PTA 281 and PTA 291

Pre/Corequisite(s): PTA 282 and PTA 292

### **PTA 281 Directed Practice I (3)**

Provision of physical therapy services in a clinical setting; application of knowledge and role, performance of skills and professional behavior at a developing level; supervised by clinical and academic faculty; part-time, 16 hours/week.

Prerequisite(s): PTA 241 and PTA 245

Pre/Corequisite(s): PTA 260

Corequisite(s): PTA 291

Student Liability Fee: \$20.00

### **PTA 282 Directed Practice II (3)**

Provision of physical therapy services in a clinical setting; continued application of knowledge and role, performance of skills and professional behavior at a progressively developing level; supervised by clinical and academic faculty; part-time 16 hours/week.

Prerequisite(s): PTA 260, PTA 281 and PTA 291

Pre/Corequisite(s): PTA 265

Corequisite(s): PTA 292

### **PTA 283 Directed Practice III (6)**

Provision of physical therapy services in a clinical setting; continued application of knowledge and role, performance of skills and professional behavior; performance progresses to entry level consistent with the role of the physical therapist assistant in implementing the plan of care established by the physical therapist; supervised by clinical and academic faculty; full-time 40 hours/week for eight weeks.

Prerequisite(s): PTA 282 and PTA 292

Corequisite(s): PTA 293

### **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. Also selected topics as instructor determines.

Prerequisite(s): PTA 241 and PTA 245

Pre/Corequisite(s): PTA 260

Corequisite(s): PTA 281

### **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

### **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: \$35.00

## **(RES) Real Estate**

### **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

Instructor Permission Required.

### **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

## **(RCC) Realtime Court Reporting**

### **RCC 110 Introduction to the Deaf Community (4)**

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. Local services available to the Deaf community.

### **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, RTR 201 and RCC 221 or RCC 211

### **RCC 251 Beginning Captioning/CART (2)**

Introduction to captioning software and application of Computer-aided Transcription (CAT) functions for use in both captioning and Communication Access Realtime Translation (CART) technologies including building dictionaries, managing and loading dictionaries for proper translation, paraphrasing in realtime, screen setup and display, use and editing of phonetic translator, on-screen globaling and defining, word substitution in realtime and accurate finger spelling. Build writing endurance by writing class lectures, seminars and broadcast news programming. Production of five-minute broadcast news program with a goal of 96 percent verbatim accuracy.

Prerequisite(s): RTR 115, RTR 131 and RTR 145

Pre/Corequisite(s): RTR 241

Lab Fee: \$25.00

### **RCC 252 Intermediate Captioning/CART (1)**

Expanded use of captioning software and application of Computer-Aided Transcription (CAT) functions for use in both captioning and CART technologies with continued emphasis on building dictionaries and managing and loading dictionaries for proper translation. Application of captioning and CART writing techniques while building realtime writing endurance by writing class lectures, seminars and broadcast news programming. Production of 10-minute broadcast news program with a goal of 96 percent verbatim accuracy.

Prerequisite(s): RCC 251 and RTR 241

Pre/Corequisite(s): RTR 242

Lab Fee: \$25.00

### **RCC 253 Advanced Captioning/CART (1)**

Implementation of captioning software and Computer-Aided Transcription (CAT) functions for use in both captioning and CART technologies. Continued emphasis on building dictionaries and managing and loading dictionaries for proper translation as preparation for employment. Expanded application of captioning and CART writing techniques while building realtime writing endurance by writing class lectures, seminars and broadcast news programming. Production of 15-minute broadcast news program with 96 percent verbatim accuracy.

Prerequisite(s): RCC 252 and RTR 242

Pre/Corequisite(s): RTR 243

Lab Fee: \$25.00

### **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 245, RTR 202, working speed of 180 wpm and RCC 222 or RCC 212

### **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 245, RTR 202, working speed of 180 wpm and RCC 222 or RCC 212

## **(RJR) Realtime Judicial Reporting**

### **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, RTR 132, RTR 241 or RJR 211

### **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 and RTR 202

## **(RST) Regional Studies**

### **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

Pre/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

Pre/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

Pre/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): CPE 061

Lab Fee: \$15.00

### **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): CPE 061

### **RTR 113 Realtime Writing I (1)**

Connections of realtime equipment, troubleshooting and perfecting approved National Court Reporters Association (NCRA) realtime theory outlines using realtime equipment and translation software. Quality practice techniques. Production of one-page unedited realtime transcript of familiar material with accuracy rate of 96 percent.

Corequisite(s): RTR 105

Lab Fee: \$15.00



**RTR 114 Realtime Writing II (1)**

Realtime dictionary building with emphasis on incorporating literary brief forms and phrases for accurate translation. Endurance accuracy building during realtime writing five-minute writing periods with an accuracy rate of 96 percent. Production of half-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent.

Prerequisite(s): RTR 105 and RTR 113

Corequisite(s): RTR 143

Lab Fee: \$15.00

**RTR 115 Realtime Writing III (1)**

Realtime dictionary building with emphasis on incorporating Testimony and Jury Charge brief forms and phrases for accurate translation. Endurance accuracy building during realtime writing ten-minute writing periods with accuracy rate of 96 percent. Production of one-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent.

Prerequisite(s): RTR 114

Corequisite(s): RTR 143 or RTR 144

Lab Fee: \$15.00

**RTR 116 Realtime Writing IV (1)**

Realtime dictionary building with emphasis on writing numbers and alphabets using Realtime Commands Dictionary. Endurance accuracy building during realtime 12-minute writing periods with an accuracy rate of 96 percent. Production of two-page unedited realtime transcript of unfamiliar materials with accuracy rate of 96 percent.

Prerequisite(s): RTR 115

Corequisite(s): RTR 145

Lab Fee: \$15.00

**RTR 120 Law and Legal Terminology (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 105 or RTR 100

Lab Fee: \$15.00

**RTR 125 Vocabulary/Reference Use (2)**

Techniques for using the dictionary, thesaurus, online references, prefixes, suffixes, synonyms, possessives and word pairs.

Prerequisite(s): 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: \$25.00

**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: \$25.00

**RTR 143 Speed Building I (4)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary and two-voice Testimony material for development of skill and accuracy in speeds ranging from 60-100 words per minute.

Prerequisite(s): RTR 105 and RTR 113

Corequisite(s): RTR 114

Lab Fee: \$15.00

**RTR 144 Speed Building II (5)**

Continued development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary, Jury Charge and two-voice Testimony material for development of skill and accuracy in speeds ranging from 80-120 words per minute.

Prerequisite(s): RTR 143 and RTR 114

Corequisite(s): RTR 115

Lab Fee: \$15.00

**RTR 145 Speed Building III (5)**

Continued development of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in Literary, Jury Charge and two-voice Testimony material for development of skills and accuracy in speeds ranging from 100-140 words per minute.

Prerequisite(s): RTR 115 and RTR 144

Corequisite(s): RTR 116

Lab Fee: \$15.00

**RTR 170 Transcription (2)**

Monitored transcription of speed dictation tests in each of the areas of dictation concentration within the required concurrent speed course. Transcription completed within 70 minutes immediately following recorded dictation. Analyzation of student transcript of test dictation as tool for reviewing vocabulary, grammar, spelling, and punctuation as well as to determine speed growth and accuracy required. Use of online, computer-aided transcription technology with teacher interaction.

Prerequisite(s): RTR 105 and RTR 113

Corequisite(s): RTR 143, RTR 144, RTR 145, RTR 241, RTR 242 or RTR 243

Lab Fee: \$25.00

**RTR 175 Skill Building (3)**

Skill-development activities, including three additional assessments of speed and accuracy skill level per week in conjunction with concurrent realtime speed-development course. Instructor monitored 80-minute test/transcription time. Analyzation of student transcript of test dictation as tool for determining quality practice needs for continual speed growth and for improved accuracy. Monitored transcription of speed dictation tests in each of the areas of dictation concentration within the required concurrent speed course. Transcription completed within 70 minutes immediately following recorded dictation. Use of online, computer-aided transcription technology with teacher interaction.

Prerequisite(s): RTR 105 and RTR 113

Corequisite(s): RTR 143, RTR 144, RTR 145, RTR 241, RTR 242 or RTR 243

Lab Fee: \$25.00

**RTR 214 Realtime Writing V (1)**

Realtime dictionary building with emphasis on dictionary growth using realtime prefixes. Endurance accuracy building 15-minute writing periods with accuracy rate of 96 percent. Production of three-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent.

Prerequisite(s): RTR 116

Corequisite(s): RTR 241

Lab Fee: \$15.00

**RTR 215 Realtime Writing VI (1)**

Realtime dictionary building with emphasis on dictionary growth using realtime suffixes. Endurance accuracy building 17-minute writing periods with accuracy of 96 percent. Production of four-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent.

Prerequisite(s): RTR 214

Corequisite(s): RTR 242

Lab Fee: \$15.00

**RTR 216 Realtime Writing VII (1)**

Realtime dictionary analysis and dictionary building of medical and technical terminology. Endurance accuracy building sustained 20-minute writing periods with accuracy of 96 percent. Production of five-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent.

Prerequisite(s): RTR 215

Corequisite(s): RTR 243

Lab Fee: \$15.00

**RTR 235 Transcript Production (4)**

Application of transcript editing and production techniques with a focus on proper scoping and proofreading skills in preparation for employment.

Prerequisite(s): RTR 242 and RTR 215

Corequisite(s): RTR 243

Lab Fee: \$25.00

**RTR 241 Speed Building IV (6)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in Literary, Jury Charge and two-voice Testimony material for development of skill and accuracy in speeds ranging from 120-180 words per minute. Introduction to multi-voice dictation, use of speaker IDs and computer-integrated courtroom setup.

Prerequisite(s): RTR 116 and RTR 145

Corequisite(s): RTR 214

Lab Fee: \$15.00

**RTR 242 Speed Building V (6)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in Literary, Jury Charge and two-voice and multi-voice Testimony material for development of skill and accuracy in speeds ranging from 160-200 words per minute. Expanded application of multi-voice dictation using speaker IDs and demonstrating knowledge of computer-integrated courtroom setup.

Prerequisite(s): RTR 214 and RTR 241

Corequisite(s): RTR 215

Lab Fee: \$15.00

**RTR 243 Terminal Speed Building (6)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary, Jury Charge and two-voice and multi-voice Testimony material for development of skills and accuracy in speeds ranging from 180-225 words per minute. Expanded application of multi-voice dictation using speaker IDs and demonstrating knowledge of computer-integrated courtroom setup. Terminal speeds of 180 wpm with 95 percent accuracy in Literary, 200 wpm with 95 percent accuracy in Jury Charge and 225 wpm with 95 percent accuracy in Testimony.

Prerequisite(s): RTR 214 and RTR 241

Corequisite(s): RTR 215

Lab Fee: \$15.00

**RTR 241 Speed Building IV (6)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary, Jury Charge, and two-voice Testimony material for development of skill and accuracy in speeds ranging from 120-180 words per minute. Introduction to multi-voice dictation, use of speaker IDs and computer-integrated courtroom setup.

Prerequisites: RTR 116, RTR 145

Pre/Corequisite(s): RTR 214

Lab Fee: \$15.00

**RTR 242 Speed Building V (6)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary, Jury Charge and two-voice and multi-voice Testimony material for development of skill and accuracy in speeds ranging from 160-200 words per minute. Expanded application of multi-voice dictation using speaker IDs and demonstrating knowledge of computer-integrated courtroom setup.

Prerequisites: RTR 214, RTR 241

Pre/Corequisite(s): RTR 215

Lab Fee: \$15.00

**RTR 243 Terminal Speed Building (6)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills, and quality practice habits. Dictation in Literary, Jury Charge and two-voice and multi-voice Testimony material for development of skills and accuracy in speeds ranging from 180-225 words per minute. Expanded application of multi-voice dictation using speaker IDs and demonstrating knowledge of computer-integrated courtroom setup. Terminal speeds of 180 wpm with 95 percent accuracy in Literary, 200 wpm with 95 percent accuracy in Jury Charge and 225 wpm with 95 percent accuracy in Testimony.

Prerequisites: RTR 215, RTR 242

Pre/Corequisite(s): RTR 216

Lab Fee: \$15.00

# (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, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score  
Pre/Corequisite(s): ENG 111

## **SOC 220 Comparing Cultures (3)**

The comparing and contrasting of several non-western world cultures with focus on family organizations, food-getting, social stratification, economics, religion, the arts and change.  
Pre/Corequisite(s): ENG 111 and SOC 110

## **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 and methodologies. Students will assess, debate and critically analyze proposed solutions to social problems from culturally diverse perspectives.

Pre/Corequisite(s): SOC 110 and ENG 111

## **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.  
Pre/Corequisite(s): ENG 111 and SOC 110

## **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. 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.

Pre/Corequisite(s): SOC 110 and ENG 111

# (SPN) Spanish

## **SPN 100 Survival Spanish I (3)**

Basic pronunciation, phrases, and greetings in Spanish for travel or work. Tools for understanding and forming sentences in Spanish. Introduction to Spanish-speaking cultures. May not be taken for credit toward graduation if the student has completed SPN 111, 112, 113, or the equivalent at another institution.

Prerequisite(s): CPE 061

## **SPN 102 Survival Spanish II (3)**

Continuation of SPN 100. Further study of tools for understanding and forming sentences in Spanish for travel or work. May not be taken for graduation credit if the student has completed SPN 111, 112, 113, or any other SPN course except SPN 100.  
Prerequisite(s): SPN 100 or instructor permission

## **SPN 111 Spanish I (4)**

Beginning-level vocabulary and structures of Spanish. Practice speaking, reading, writing, and listening in the target language. Present indicative of regular verbs, introductions and greetings, "gustar," "ser," "estar" and "ir + a + infinitive."

Prerequisite(s): CPE 061, CPE 071 and or equivalent Compass score

Corequisite(s): ENG 111

## **SPN 112 Spanish II (4)**

Further study of the vocabulary and structure of the Spanish language; practice in speaking, reading, listening comprehension and writing. Grammar concepts covered include: reflexive verbs, stem-changing verbs, commands, preterit and imperfect tenses; and object pronouns.

Prerequisite(s): SPN 111

## **SPN 113 Spanish III (4)**

Further study of the vocabulary and structure of the Spanish language; practice in speaking, reading, listening comprehension and writing. Grammar concepts covered include: present and imperfect subjunctive; future and conditional tenses; and contrasting por and para.

Prerequisite(s): 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 I (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: \$10.00

## **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: \$10.00

### **STT 275 Business Statistics (4)**

Application of statistical methods business problems; one-and two-sample statistical estimations and decision making, Chi-square analysis, F distribution, one-way and two-way analysis. Introduction to forecasting with regression models. Use of computer programs in solving statistical problems.  
Lab Fee: \$10.00

## **(SWK) Social Work**

### **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 out-groups. Explore feelings, beliefs, values and readiness to make a commitment to social work.  
Prerequisite(s): CPE 061 or appropriate Compass score  
Pre/Corequisite(s): ENG 111

### **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 and ENG 111 or instructor permission  
Pre/Corequisite(s): ITS 103

### **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): ENG 112, ENG 223, ITS 103 and SWK 100 or instructor permission

### **SWK 131 Social Policy and Services for Assoc. of Arts/ Pre-SWK Majors (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 populations, particularly minorities. Understand forces that effect policy. Equivalent to SWK 130 with addition of 30 hour of field observation. Associate of Arts/Pre-Social Work degree majors interested in transferring into Wright State University's College of Social Work should take this course. Student may not take both SWK 130 and SWK 131 for credit toward graduation.  
Prerequisite(s): SWK 100, ENG 112 and ITS 103 or ITS 12W or Instructor Permission  
Student Liability Fee: \$20.00

### **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): ENG 111, ITS 103 and SWK 100 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 Instructor Permission

### **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)**

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 or Instructor Permission

### **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): SWK 121 for SWK majors and ECE 102 and SWK 136 or Instructor Permission for ECE majors

### **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 Instructor Permission

### **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 Instructor permission

### **SWK 271 Social Services Practicum I (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

Instructor Permission Required.

Student Liability Fee: \$20.00

### **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

Instructor Permission Required.

### **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

Instructor Permission Required.

### **SWK 291 Social Service Seminar I (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

Instructor Permission Required.

### **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

Instructor Permission Required.

### **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

Instructor Permission Required.

### **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.

## **(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 with focus on techniques developed by Arthur Lessac.

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: \$20.00

### **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: \$20.00

### **THE 115 Props, Wardrobe, Stage Makeup (3)**

Focus on skills needed to work on props, wardrobe and makeup for the theatre.

Lab Fee: \$25.00

### **THE 130 Introduction to Theatre (3)**

The art of the theatre explored through the historical, literary and production perspectives.

Prerequisite(s): CPE 061

### **THE 133 Script Analysis (3)**

Introduction to script analysis by identifying plot, structure, action, themes and application for the stage.

Prerequisite(s): CPE 061, grade of B or better in CPE 071 or a grade of C or better in CPE 072 or appropriate Compass Score Pre/Corequisite(s): ENG 111

### **THE 140 Movement for Actors (3)**

Movement principles for actors. Body alignment, weight transference, simple movements and movement combinations.

### **THE 150 Theatre Laboratory I (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 and instructor permission  
Instructor Permission Required.

**THE 151 Theatre Laboratory II (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 and and instructor permission  
Instructor Permission Required.

**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 and Instructor Permission  
Instructor Permission Required.

**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 Theatre Arts Tour (4)**

Survey and practical application of the touring process for high school audiences.

Prerequisite(s): CPE 061 and and Instructor Permission  
Instructor Permission Required.

**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 and ENG 111

Corequisite(s): THE 130

**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

Corequisite(s): THE 133

**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

**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 and THE 221

**THE 241 Theatre History I (3)**

Survey of the history and development of theatrical production from Ancient Greece through Medieval Europe. Emphasis on play production rather than literature. Representative plays studied.

Prerequisite(s): CPE 061, CPE 071 and or equivalent Compass score

Corequisite(s): ENG 111

**THE 242 Theatre History II (3)**

Survey of the history of theatrical production from the Renaissance through the eighteenth century. Emphasis on play production rather than literature. Representative plays studied.

Prerequisite(s): CPE 061, CPE 071 and or equivalent Compass score

Corequisite(s): ENG 111

**THE 243 Theatre History III (3)**

Survey of the history of theatrical production from the Eighteenth Century through the present. Emphasis on play production rather than literature. Representative plays studied.

Prerequisite(s): CPE 061, CPE 071 and or equivalent Compass score

Corequisite(s): ENG 111

**THE 280 Directing I (4)**

Introduction to the art and techniques of directing for working with actors.

Prerequisite(s): THE 111 and 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  
Instructor Permission Required.

**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

Instructor Permission Required.

**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

Instructor Permission Required.

**THE 288 Co-op Education IV (1)**

Continuation of work experience, including an extensive academic project is required.

Prerequisite(s): THE 285

Instructor Permission Required.

**THE 289 Co-op Education V (2)**

Continuation of work experience, including an academic project.

Instructor Permission Required.



# Course Descriptions Semesters

2011  
2012

In Fall 2012, Clark State is transitioning its academic calendar from quarters to semesters. This section outlines the semester courses and descriptions at the time of printing and updates/changes may occur. Work closely with your advisor when scheduling to ensure you stay on track for program completion and graduation.



**Semester courses will be offered effective fall 2012. Draft descriptions of the planned semester courses are provided in this section for informational purposes to facilitate transition from quarters to semester. This information is in draft format and subject to change. Course specific fees are not included.**

## Course Numbering System

Alpha prefixes identify the subject area of the course while the number identifies the level. Courses in the 1000 series are usually considered first-year courses while courses in the 2000 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 1000 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 pre/corequisite. Pre/corequisite courses must be taken during the same term or prior to the selected course.

Sometimes courses must be taken concurrently. If this is the case the courses are designated as corequisites. For example, a seminar course and its associated practicum course must be taken simultaneously.

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 1000 Accounting Concepts (3)

Survey of financial accounting for nonaccounting majors. Topics covered include: accounting concepts, financial statements, internal control, cash, receivables, inventories, plant and equipment, liabilities and payroll. Course does not substitute for ACC 1100.

Prerequisite(s): CPE 0200 and CPE 0500

Terms Offered: Spring

## ACC 1100 Introduction to Financial Accounting (4)

Fundamental accounting concepts, terms and procedures. Emphasis on analyzing, classifying and recording accounting data.

Prerequisite(s): CPE 0200 and CPE 0500

Terms Offered: Fall, Spring

## ACC 1200 Managerial Accounting (4)

Theories, standards and practices related to the analysis of accounting data as part of the managerial process of planning, decision making and control.

Prerequisite(s): ACC 1100

Terms Offered: Fall, Spring

## ACC 1300 Payroll Accounting (2)

Practical application of payroll tax laws and requirements. Use of manual and computerized systems; payroll registers, tax returns and deposit coupons.

Prerequisite(s): ACC 1100

Terms Offered: Spring

## ACC 1400 Computerized Accounting (3)

Integrated accounting systems applications. Maintaining accounting records, financial statement generation using accounting software. Study of both service and merchandising businesses.

Prerequisite(s): ACC 1000

Terms Offered: Fall

## ACC 2000 Spreadsheet Accounting (3)

Accounting applications applied using Microsoft Excel. Financial statement preparation, aging of accounts receivable, loan amortization, ratio analysis, payroll, depreciation, fixed assets covered. Emphasis on sorting, filtering and formatting.

Prerequisite(s): ACC 1100 and ITS 1235

Terms Offered: Fall

## ACC 2100 Intermediate Accounting I (4)

Conceptual framework, standard-setting concepts and principles of both US GAAP and International Financial Reporting Standards (IFRS), balance sheet, income statement, statement of shareholder's equity, statement of cash flows and disclosures.

Prerequisite(s): ACC 1100

Terms Offered: Fall

### **ACC 2200 Intermediate Accounting II (4)**

US Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) applied to fixed assets, intangibles, investments, liabilities, income taxes, stockholder's equity and statement of cash flows.

Prerequisite(s): ACC 2100

Terms Offered: Spring

### **ACC 2300 Cost Accounting (2)**

Cost accounting principles including job order cost, process cost and standard cost accounting. Variance analysis and budgeting also covered.

Prerequisite(s): ACC 1100 and ACC 1200

Terms Offered: Spring

### **ACC 2400 Tax Accounting (4)**

Theory of individual taxes and their application under the Internal Revenue Code. Preparation of individual tax returns. Introduction to federal business tax law, Ohio Commercial Activity Tax and Sales Tax covered.

Prerequisite(s): CPE 0200

Terms Offered: Fall

### **ACC 2500 Accounting Capstone (4)**

Preparation for the ABA (Accredited Business Accountant) Certification comprehensive examination for accreditation in accountancy offered through the Accreditation Council for Accountancy and Taxation (ACAT).

Prerequisite(s): ACC 1100, ACC 1200, ACC 1300, ACC 2100, ACC 2300, ACC 2400 and MGT 2600

Pre/Corequisite(s): ACC 2200 and MGT 2270

Terms Offered: Spring

## **(AGR) Agriculture**

### **AGR 1100 Ag Survey and Professional Development (4)**

Exploration of agriculture and horticulture career opportunities. Assessment and development of professional skills, including goals, employability skills, student responsibilities and industry expectations. Using electronic media for information gathering, presentations, communication and data management.

Prerequisite(s): CPE 0100 and CPE 0300

Terms Offered: Fall, Spring

### **AGR 1250 Animal Agriculture (3)**

Introduction to animal science focusing on the economic importance of the animal production industry. Identification of species, breeds and general production techniques. Instruction in feeds, nutrition, animal health, environmental concerns and facility requirements.

Prerequisite(s): ENG 1111

Instructor Permission Required.

Terms Offered: Fall

### **AGR 1300 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 0100 and CPE 0300

Terms Offered: Fall

### **AGR 1350 Soil Fertility (4)**

Principles of soil fertility, plant nutrient requirements, nutrient sources, application methods and environmental concerns.

Prerequisite(s): AGR 1300

Terms Offered: Spring

### **AGR 1400 Turfgrass Science (3)**

Role of turfgrass in the green industry. Classification and structure of grasses. Development of best cultural practices for landscapes, public areas, sports fields and golf courses, including establishment, mowing, fertilization, aeration and irrigation.

Prerequisite(s): CPE 0100 and CPE 0300

Terms Offered: Fall

### **AGR 1500 Landscape Design (4)**

A study of landscape design concepts and principles. Emphasis on site survey; site planning; landscape plant utilization; and development of basic sketching, drawing, lettering and labeling skills.

Prerequisite(s): CPE 0100 and CPE 0300

Terms Offered: Spring

### **AGR 1600 Landscape Maintenance (4)**

Approved practices in the care and maintenance of landscape sites. Emphasis on planning, site survey, pruning, mulching, transplanting, plant utilization and plant care.

Prerequisite(s): CPE 0100 and CPE 0300

Terms Offered: Fall

### **AGR 1700 Landscape Construction (4)**

Fundamental principles and practices of landscape construction. Site survey, planning, preparation, materials, techniques, safety principles and tool and equipment operation. Development of job specification, bids, and workforce and project management.

Prerequisite(s): CPE 0100 and CPE 0300

Terms Offered: Spring

### **AGR 1800 Welding (4)**

Introduction to welding techniques such as Stick, MIG, TIG, and Oxyacetylene welding. Additional skill development in oxyacetylene brazing, cutting and plasma cutting.

Prerequisite(s): CPE 0100

Lab Fee: \$25.00

Terms Offered: Spring

### **AGR 200B Co-op Experience in Ag Business (2)**

Application of agricultural academic studies to the workplace environment, establishing learning outcomes and preparing related reports. Workplace learning for a minimum of 300 documented hours.

Prerequisite(s): AGR 1100 and a minimum of 10 technical hours  
Instructor Permission Required.

Terms Offered: Summer

### **AGR 200E Co-op Experience in Ag Engineering (2)**

Application of agricultural academic studies to the workplace environment, establishing learning outcomes and preparing related reports. Workplace learning for a minimum of 300 documented hours.

Prerequisite(s): AGR 1100 and a minimum of 10 technical hours  
Instructor Permission Required.

Terms Offered: Summer

**AGR 200G Co-op Experience in Golf Course Ops (2)**

Application of agricultural academic studies to the workplace environment, establishing learning outcomes and preparing related reports. Workplace learning for a minimum of 300 documented hours.

Prerequisite(s): AGR 1100 and a minimum of 10 technical hours  
Instructor Permission Required.

Terms Offered: Summer

**AGR 200L Co-op Experience in Landscape Design (2)**

Application of agricultural academic studies to the workplace environment, establishing learning outcomes and preparing related reports. Workplace learning for a minimum of 300 documented hours.

Prerequisite(s): AGR 1100 and a minimum of 10 technical hours  
Instructor Permission Required.

Terms Offered: Summer

**AGR 200N Co-op Experience in Nursery Ops (2)**

Application of agricultural academic studies to the workplace environment, establishing learning outcomes and preparing related reports. Workplace learning for a minimum of 300 documented hours.

Prerequisite(s): AGR 1100 and a minimum of 10 technical hours  
Instructor Permission Required.

Terms Offered: Summer

**AGR 200P Co-op Experience in Parks & Rec (2)**

Application of agricultural academic studies to the workplace environment, establishing learning outcomes and preparing related reports. Workplace learning for a minimum of 300 documented hours.

Prerequisite(s): AGR 1100 and a minimum of 10 technical hours  
Instructor Permission Required.

Terms Offered: Summer

**AGR 200T Co-op Experience in Turf & Landscape (2)**

Application of agricultural academic studies to the workplace environment, establishing learning outcomes and preparing related reports. Workplace learning for a minimum of 300 documented hours.

Prerequisite(s): AGR 1100 and a minimum of 10 technical hours  
Instructor Permission Required.

Terms Offered: Summer

**AGR 2100 Woody Plant Materials (4)**

Identification of trees, shrubs, ground covers, and related woody plant materials commonly used in the green industry.

Prerequisite(s): CPE 0100 and CPE 0300

Terms Offered: Fall

**AGR 2150 Herbaceous Plant Materials (3)**

Identification of annuals, biennials, perennials, bulbs and monocots used in the green industry.

Prerequisite(s): CPE 0100 and CPE 0300

Terms Offered: Spring

**AGR 2200 Crop Production (3)**

Adoption, utilization, cultural, and management practices of major agricultural field and forage crops. Product quality and commercial standards associated with the crops and the use of electronic equipment and software in approved management techniques.

Prerequisite(s): ENG 1111

Terms Offered: Fall

**AGR 2300 Plant Propagation (4)**

Principles and techniques used to propagate floral, greenhouse and landscape plants. Explore materials, facilities and structures used by commercial growers.

Prerequisite(s): CPE 0200 and CPE 0400

Terms Offered: Spring

**AGR 2400 Turfgrass Management (3)**

Management of turfgrass cultural practices as applied to the turfgrass industry. Includes equipment selection, maintenance and management. Fertilizer and pest management, developing schedules, record keeping and budget development.

Prerequisite(s): AGR 1400

Terms Offered: Fall

**AGR 2450 Irrigation Systems (3)**

Irrigation system operation and design. Primary emphasis is on turfgrass, golf course and commercial operations.

Prerequisite(s): ENG 111 and MTH 1200

Terms Offered: Spring

**AGR 2500 Advanced Landscape Design (4)**

Advanced study and application of landscape design principles and techniques with the emphasis on planning, designing, pricing and selling diversified landscapes.

Prerequisite(s): AGR 1500

Terms Offered: Fall

**AGR 2550 Computer Aided Landscape Design (4)**

Principles of computer aided landscape design systems. Generation of a landscape plan from various software packages, bill of material estimation packages. Presentation media for customer applications.

Prerequisite(s): AGR 2500 and CAD 1101

Terms Offered: Spring

**AGR 2600 Plant Pests (4)**

Identification of insects, diseases, and weeds important to the green industry. A study of pest life cycles, types of damage, and natural controls.

Prerequisite(s): CPE 0200, CPE 0400 and AGR 1350

Terms Offered: Fall

**AGR 2650 Integrated Pest Management (4)**

Management of pest problems utilizing approved control methods. The use of cultural, biologic and chemical methods including the safe use, handling and application of pesticides. Individualized study in the student's area of interest.

Prerequisite(s): AGR 2600

Terms Offered: Spring

### **AGR 2700 Ag Business Management (4)**

An in-depth study of planning, creating, organizing, operating and managing an agribusiness. Development of a detailed business plan in the student's area of interest.

Pre/Corequisite(s): ENG 1111

Terms Offered: Fall

### **AGR 2750 Ag Sales (3)**

Study of agricultural sales and personal selling. Ethical and legal responsibilities, concepts of buyer behavior, communication principles and adaptive selling techniques.

Prerequisite(s): ENG 1111

Terms Offered: Fall

### **AGR 2800 Equipment Mgt., Maintenance, & Repair (4)**

Practical development of best practices for selection, operation, and management of green industry equipment. Small engine operation, troubleshooting and overhaul. Rent, lease, buy decisions; depreciation schedules; maintenance schedules and other fleet resources.

Prerequisite(s): ENG 111 and MTH 1200

Terms Offered: Spring

### **AGR 2850 Agricultural Capstone Seminar (3)**

Practical application of knowledge and skills learned in previous coursework and industry experience. Use of problem-solving and teaming skills to respond to a series of real-world industry scenarios. Off-site casework may be required.

Prerequisite(s): AGR co-op, 30 technical hours, AGR 1350, AGR 2700

Terms Offered: Spring

## **(ART) Art**

### **ART 1001 Art History I (3)**

Survey of visual art from prehistoric times through the early Renaissance era.

Prerequisite(s): CPE 0100 and CPE 0300 or appropriate Compass score

Corequisite(s): ENG 1111

Terms Offered: Fall

### **ART 1002 Art History II (3)**

Description: Survey of visual art and architecture from the early Renaissance era to the Modern period.

Prerequisite(s): CPE 0100 and CPE 0300 or appropriate Compass score

Corequisite(s): ENG 1111

Terms Offered: Spring

### **ART 1005**

This course is still being developed and more information will be available on the College website.

### **ART 1111 Drawing I (3)**

This course is still being developed and more information will be available on the College website.

### **ART 1300 Appreciation of the Arts (3)**

Survey of the spectrum of the arts embedded within western civilization. Examines and evaluates the aesthetic contributions of painting, sculpture, architecture, music and dance of each historical period. Individual artworks for each period illustrating the nature and problems of the creative process as it evolved during each specific period from the Paleolithic Period to the Post-Modern Period.

Prerequisite(s): CPE 0100, grade of B or better in CPE 0300 or a grade of C or better in CPE 0400 or appropriate Compass score

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Spring

## **(ATI) Advanced Technical Intelligence**

### **ATI 1100 Introduction to the Intelligence Community (3)**

Origins and structure of the current U.S. Intelligence Community (IC). Key intelligence agencies and their functions, roles and missions. Facets of the intelligence production cycle, including tasking, collecting and processing. Exploitation/analysis and dissemination of intelligence data. U.S. citizenship required.

Prerequisite(s): CPE 0200, CPE 0400, US citizenship and background check

Pre/Corequisite(s): ENG 1111

Terms Offered: Fall

### **ATI 1205 Introduction to Advanced Geospatial Intelligence (3)**

Science and underlying phenomenology of remote sensing. Remote sensing collection system; how it interacts with the environment while collecting information from that environment. U.S. citizenship required.

Prerequisite(s) MTH 1280, PHY 1501, US citizenship and Background check

Pre/Corequisite(s) ATI 1100, ENG 1111

Terms Offered: Fall

### **ATI 2105 Introduction to Radar (3)**

Underlying principles of radar and fundamentals of radar sensing: How line-of-sight (LOS) radar, over-the-horizon (OTH) radar, synthetic aperture radar (SAR), light detection and ranging (LiDAR), and Directed Energy Weapons (DEW) work and can be used in Measurement and Signature Intelligence (MASINT) and Advanced Geospatial Intelligence (AGI). Active remote sensing with applications relevant to the military and intelligence communities. US citizenship and secret-level security clearance required.

Prerequisite(s) ATI 1100 and ATI 1205 or PHY 1501 and PHY 1502; MTH 1280, US citizenship

Terms Offered: Spring

### **ATI 2200 Introduction to Large-Area Surveillance from Space (3)**

Role of OPIR in National Defense. Data collection, processing and exploitation. Advantages and disadvantages of OPIR as a remote sensing tool. U.S. citizenship and security clearance required.

Prerequisite(s): ATI 2105, US citizenship and National Security clearance

Terms Offered: Spring

### **ATI 2205 MASINT Fundamentals (3)**

Overview of MASINT (Measurement and Signature Intelligence) disciplines: Chemical, Biological, Radiological, and Nuclear; Seismic and Acoustic; Geophysical; Materials; Radio Frequency. Over-the-Horizon Radar, Synthetic Aperture Radar (SAR). U.S. citizenship and security clearance required.

Prerequisite(s): ATI 1100, ATI 1205, US citizenship and National Security clearance

Pre/Corequisite(s): ATI 2105

Terms Offered: Spring

## **(BIO) Biology**

### **BIO 1101 Fundamentals of Human Biology (4)**

The human organism: structure and organization, integrity and homeostasis, metabolism, responsiveness, reproduction, growth and development. Includes current topics related to human health, disease and disorders as well as aging.

Prerequisite(s): CPE 0100 and CPE 0500

Terms Offered: Fall, Spring

### **BIO 1105 Fundamentals of Anatomy and Physiology (3)**

Survey of the structure and function of the human body; special emphasis on the major body systems.

Prerequisite(s): CPE 0200, CPE 0300, and/or equivalent Compass score

Terms Offered: Fall, Spring

### **BIO 1118 Muscle Anatomy and Biomechanics (4)**

Study of muscle, skeleton, joint structure and function. Origin, insertion, action and innervation of trunk and extremity musculature. Science of human motion. Systematic application of mechanical laws to movement. Palpation, fundamentals of posture and gait analysis. Professional behavior development. Laboratory practice.

Prerequisite(s): none

Pre/Corequisite(s): PTA 1110, MST 1105, BIO 2121, PTA 1120 and ENG 1111

Instructor Permission Required.

Terms Offered: Fall, Winter, Summer

### **BIO 1131 Microbiology (3)**

Study of bacteria, fungi, protozoa, rickettsiae, chlamydia, viruses, and helminths. Emphasis on their relationship to health.

Prerequisite(s): CPE 0200 and CPE 0300 (or equivalent Compass score)

Terms Offered: Fall, Spring

### **BIO 1410 Fundamentals of Biology (4)**

Fundamental concepts in biology including: chemistry essential to understanding living organisms; structure and function of cells; basic concepts of energy in living systems and introduction to human biology.

Prerequisite(s): CPE 0200

Terms Offered: Fall, Spring

### **BIO 1420 Global Biology (4)**

Basic principles in ecology, evolution and environmental biology including: Diversity of living organisms; interactions between living organisms and the interactions of living organisms with their environment; plant biology and photosynthesis; mechanisms of evolution and biological aspects of current environmental issues.

Prerequisite(s): CPE 0200

Global Awareness.

Terms Offered: Spring

### **BIO 1510 Biology I (5)**

Consistent with transfer assurance guidelines (TAG) for Biology I (first in a two-semester sequence, intended for students with science majors). Concepts in chemistry essential to understanding living organisms. Fundamentals of cellular biology. Molecular genetics and patterns of inheritance. Mechanisms of evolution.

Prerequisite(s): CPE 0100, CPE 0600 and CHM 1150 or high school chemistry

Terms Offered: Fall

### **BIO 1520 Biology II (5)**

Consistent with Transfer Assurance Guidelines (TAG) for Biology II (second in a two-semester sequence, intended for students with science majors). Evolutionary processes relevant to biological diversity. Diversity and classification of living organisms. Structure and function of plants and animals. Ecosystem structure and function.

Prerequisite(s): CPE 0100, CPE 0600 and BIO 1510

Terms Offered: Spring

### **BIO 2121 Anatomy and Physiology I (4)**

Human cells, tissues, skin, bones, muscles, nervous system cells, central, peripheral and autonomic nervous systems; special senses, endocrine system.

Prerequisite(s): BIO 1410 or high school biology within 5 years with a C or better and CHM 1150 or high school chemistry within 5 years with a C or better

Terms Offered: Fall, Spring

### **BIO 2122 Anatomy and Physiology II (4)**

Human circulatory, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Immunity, nutrition and metabolism, fluid and electrolyte balance/acid-base balance, pregnancy, human development and heredity.

Prerequisite(s): BIO 2121

Terms Offered: Fall, Spring

### **BIO 290B Bridge course/BIO 122 (1)**

Content from quarter course BIO 122 that was moved to BIO 2121, to bridge gap from BIO 121 to BIO 2122.

Prerequisite(s): BIO 121

Terms Offered: Fall

# (CAD) Computer-Aided Design

## **CAD 1101 Computer-Aided Design I (3)**

AutoCAD software to construct two-dimensional mechanical drawings. AutoCAD commands to produce drawings and fully dimension them according to ANSI standards. Drawings plotted at scale as required.

Prerequisite(s): CPE 0200, CPE 0500 and ITS 0800

Terms Offered: Fall, Spring

## **CAD 1102 Computer-Aided Design II (3)**

AutoCAD software. Creating libraries, three-dimensional wire frame drawings, solid drawings and custom menus. 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 in preparation of creating finished documents.

Prerequisite(s): CAD 1101

Terms Offered: Spring

## **CAD 1301 Architecture I (3)**

Introduction to architectural design with the use of C.A.D. Research, use of space, preliminary design, formal presentation drawing and design projects.

Prerequisite(s): CAD 1101

Terms Offered: Spring

## **CAD 2100 Solid Modeling (3)**

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 and AutoCAD used.

Prerequisite(s): CAD 1101 and ENT 1100

Terms Offered: Fall

## **CAD 2200 Advanced Solid Modeling (3)**

Advanced 3-D modeling techniques. Presentation files, animation, model analysis, piping systems and assembly models.

Prerequisite(s): CAD 2100

Terms Offered: Spring

## **CAD 2302 Architecture II (3)**

Continuation of Architecture I with additional emphasis on not only architectural drawings, but electrical, plumbing, and HVAC plans. Exploration of building codes, cost estimation and new building materials for more cost effective homes.

Prerequisite(s): CAD 1301

Instructor Permission Required.

Terms Offered: Fall

# (CHM) Chemistry

## **CHM 1100 Chemistry and Society (4)**

Chemistry for non-science majors. 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, observing chemical reactions, properties of light, chemical moles, solutions, properties of water, acids and bases, comparing fuels, plastics, structure of drugs, isolation of DNA, applications to society. (\*Indicates objectives pertinent to the laboratory portion of the course as well as lecture.)

Prerequisite(s): CPE 0400, or equivalent Compass score, CPE 0500, or equivalent Compass score, CPE 0600 and/or equivalent Compass score

Global Awareness.

Terms Offered: Fall, Spring

## **CHM 1120 Survey of General, Organic and Biological Chemistry (4)**

Measurements; energy and matter, atoms and elements, compounds and bonds, chemical quantities and reactions; properties of gases, solutions acids and bases, introduction to structures and properties of alkanes, unsaturated hydrocarbons, alcohols, thiols, ethers, aldehydes and ketones, carboxylic acids, esters, amines and amides, introduction to the structures and properties of carbohydrates, lipids, amino acids, proteins and nucleic acids.

Prerequisite(s): CPE 0400 or equivalent Compass score; CPE 0500, C or better, or CPE 0600 or equivalent Compass score

Terms Offered: Fall, Spring

## **CHM 1150 Introduction to General Chemistry (4)**

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, bases and buffers, introduction to chemical laboratory equipment and methods, including mass and volume measurements, graphing, observing chemical and physical properties, carrying out stoichiometric measurements and titrations, drawing conclusions from experimental data, designing experiments to test hypotheses. (\*Indicates objectives pertinent to the laboratory portion of the course as well as lecture.)

Prerequisite(s): All majors: CPE 0400, CPE 0600, C or better or equivalent Compass score, AS majors: CPE 0700 and/or equivalent Compass score

Global Awareness.

Terms Offered: Fall, Spring

## **CHM 1160 Introduction to Organic and Biological Chemistry (4)**

Introduction to the structures, chemical and physical properties of hydrocarbons, alcohols, phenols, ethers, aldehydes, ketones, carbohydrates, carboxylic acids, esters, lipids, amides, amino acids and proteins. Introduction to the role of enzymes and vitamins in metabolism, structure and function of nucleic acids, and protein synthesis, reactions of hydrocarbons, alcohols, phenol, ethers, carboxylic acids, esters, properties of lipids,

saponification, structures and properties of aspirin and other analgesics, amino acids, peptides and proteins, properties of enzymes. (\*Indicates objectives pertinent to the laboratory portion of the course as well as lecture.)

Prerequisite(s): High School chemistry or CHM 1150 in last 5 years; , High School chemistry or CHM 1150 in last 5 years, or equivalent Compass score, CPE 0600 and/or equivalent Compass score

Terms Offered: Fall

### **CHM 1210 General Chemistry I (5)**

Significant figures; fundamental structures of atoms and molecules, introduction to quantum mechanics, atomic orbitals; principles of ionic, covalent and metallic bonding, including Lewis structures, valence bond and molecular orbital theories of bonding; mole concept, stoichiometry and the laws of composition; acids and bases, oxidation-reduction chemistry, and solutions; thermochemistry; behavior of gases, classification of elements, including periodicity; nuclear chemistry; applications of chemistry in society; molecular modeling; collection, analysis and reporting of data; problem-solving using algebraic methods. (\*Indicates objectives pertinent to the laboratory portion of the course as well as lecture.)

Prerequisite(s): High School chemistry in last 5 years plus passing chemistry placement test or CHM 1150, C or better, CPE 0400 or equivalent Compass score, CPE 0700 and/or equivalent Compass score

Pre/Corequisite(s): ENG 1111 and MTH 1280

Terms Offered: Fall, Spring

### **CHM 1220 General Chemistry II (5)**

Intermolecular forces and phase changes; solutions and colligative properties; chemical kinetics; chemical equilibrium; acid-base equilibria; thermodynamics (including entropy and free energy); electrochemistry; descriptive chemistry, including chemical properties and classification of the elements, periodic patterns of reactivity; introduction to organic and biochemistry; applications of chemistry in society; collection, analysis and reporting of data; problem-solving using algebraic methods. (\*Indicates objectives pertinent to the laboratory portion of the course as well as lecture.)

Prerequisite(s): CHM 1210 and C or better

Pre/Corequisite(s): MTH 1340 and ENG 1122

Terms Offered: Spring

### **CHM 2110 Organic Chemistry I (5)**

Structure, nomenclature, physical properties, preparation and reactions of alkanes, alkenes, alkynes, alcohols, ethers, epoxides and conjugated systems; stereochemistry; reaction mechanisms; radical reactions; spectroscopic methods including mass spectrometry, infrared spectroscopy, nuclear magnetic resonance spectroscopy; introduction to scientific writing, computational chemistry; synthesis, isolation, purification and identification of organic compounds.

Prerequisite(s): CHM 1220 and MTH 1340

Terms Offered: Fall

### **CHM 2120 Organic Chemistry II (5)**

Structure, nomenclature, physical properties, preparation and reactions of arenes, delocalized pi systems, aldehydes, ketones, carboxylic acids, esters, amides, monosaccharides, disaccharides, polysaccharides, amino acids, peptides, proteins and nucleic acids; stereochemistry; reaction mechanisms; radical reactions; spectroscopic methods including mass spectrometry, infrared spectroscopy, nuclear magnetic resonance spectroscopy; introduction to scientific writing, computational chemistry; synthesis, isolation, purification and identification of organic compounds.

Prerequisite(s): CHM 1220 and MTH 1340

Terms Offered: Spring

## **(COM) Communication**

### **COM 1110 Interpersonal Communication I (3)**

An introduction to the principles and theories of interpersonal communication; analyzing, changing and improving oneself within various relationships. The communication process, listening, perception, verbal and nonverbal communication, emotions, self-concept, power, conflict, gender and intercultural communication.

Prerequisite(s): CPE 0400

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring, Summer

### **COM 1120 Public Speaking I (3)**

An introduction to public speaking processes designed to assist students in communicating effectively in a variety of speaking situations. Examines developing, organizing, delivering and analyzing public presentations. Online sections require digital recording equipment and are not recommended for students with high speech anxiety.

Prerequisite(s): CPE 0400

Corequisite(s): ENG 1111

Terms Offered: Fall, Spring

### **COM 1130 Introduction to Mass Communication (3)**

History of mass media in our society, specifically; radio, newspapers, magazines, television, governmental regulation, public relations, marketing, advertising and the Internet. Relationships between mass media, other forms of media, their respective audiences and philosophical and ethical issues.

Prerequisite(s): ENG 1111

Terms Offered: Fall, Spring

### **COM 1170 Small Group Communication (3)**

An introduction to the basic terms, principles and theories of small group communication, examining multi-cultural leadership, roles, goal achievement, conflict, decision making, problem solving. Development of effective group decision making, leadership skills, emphasizing methods of expressing oneself and understanding others.

Prerequisite(s): CPE 0400

Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring

### **COM 2220 Public Speaking II (3)**

An in-depth look at oral presentation design with an emphasis on the fundamentals of argumentation, building a strong case of evidence and components of debate.

Prerequisite(s): COM 1120

Terms Offered: Fall, Spring

### **COM 2700 Communication Internship (3)**

Planned, structured, work experience in a professional setting applying a variety of classroom theory and acquiring new skills for a career in Communication. May earn between 1-3 credit hours.

Prerequisite(s): ENG 1112 and 30 semester hours

Terms Offered: Fall, Spring

## **(COR) Corrections**

### **COR 1100 Introduction to Corrections (3)**

Survey of the corrections system. 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 0100 and/or equivalent Compass score

Terms Offered: Fall

### **COR 1105 Probation and Parole (3)**

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): CPE 0100 and/or equivalent Compass score

Terms Offered: Winter, Summer

### **COR 1130 Adult/Juvenile Corrections (3)**

Facilities, programs, and procedures for detention and incarceration.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Spring

### **COR 2280 Jail Practicum (3)**

Field service training. Educational experience through appropriate observation and work assignment in local jail and state-operated juvenile correction facilities.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Fall, Winter, Summer

### **COR 2285 Prison Practicum (3)**

Field service training. Educational experience through appropriate observation and work assignment in state operated juvenile and adult correction facilities.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Winter, Spring, Summer

## **(CPE) College Prep Education**

### **CPE 0100 Reading Comprehension I (3)**

Semi-individualized program of reading skill development. Exit goal: eighth grade reading level. General reading comprehension skills, vocabulary development and study skills strategies. Institutional credit only.

Prerequisite(s): Reading Compass score below CSCC standard

Terms Offered: Fall, Spring

### **CPE 0200 Reading Comprehension II (3)**

Continuation of reading skill development begun in CPE 0100. Appropriate for students reading at eighth grade level or above. Exit goal: tenth grade reading level. General reading comprehension skills, vocabulary development, and study skills strategies. Institutional credit only.

Prerequisite(s): Appropriate Compass score

Terms Offered: Fall, Spring

### **CPE 0300 Writing Fundamentals I (3)**

Prepares students for English 1111 and 1112. Improves reading and writing skills, introduces students to the college's library and MLA guidelines. Institutional credit only.

Prerequisite(s): Writing Compass score below the CSCC standard

Pre/Corequisite(s): Writing placement test result below the CSCC standard, ITS 0810, and /or appropriate typing score

Terms Offered: Fall, Spring

### **CPE 0400 Writing Fundamentals II (3)**

Builds on the writing skills of students at the sentence and paragraph level. Introduces students to a variety of essay formats, revision skills, grammar, basic critical reading skills and basic library research.

Prerequisite(s): CPE 0300 with a grade of C and/or equivalent Compass score

Corequisite(s): CPE 0200 or appropriate Compass score, ITS 0810, and /or appropriate typing score

Terms Offered: Fall, Spring

### **CPE 0500 Pre-Algebra (4)**

Topics include whole numbers, mixed numbers, fractions, decimals, percentages, ratios and proportions, operations with the metric system, operations with integers, solving linear equations, solving literal equations and solving linear inequalities. Institutional credit only.

Terms Offered: Fall, Spring

### **CPE 0600 Algebra I (4)**

Solving various application/word problems involving linear equations; operations with polynomials, including factoring; solving quadratic equations by factoring; operations on rational expressions; solving equations containing rational expressions; solving various application/word problems involving rational expressions; graphs of points and lines; and slope and linear systems in two variables. Institutional credit only.

Prerequisite(s): CPE 0500 and/or equivalent Compass score

Terms Offered: Fall, Spring, Summer



### **CPE 0700 Intermediate Algebra (3)**

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): CPE 0600 and/or equivalent Compass score

Terms Offered: Fall, Spring, Summer

## **(CRJ) Criminal Justice**

### **CRJ 1100 Introduction to Criminal Justice (3)**

Overview of the criminal justice system's history, development and evolution including subsystems of police, courts and corrections.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Fall, Winter, Summer

### **CRJ 1116 Systems Approach to Computer Technology (3)**

Management of police departments through computer applications, using data base, presentation and other commercial software.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Fall

### **CRJ 1120 Juvenile Procedures (3)**

Discussion of the juvenile justice system's parts and subcultures; causative factors of, prevention of and treatment programs for juvenile delinquency.

Prerequisite(s): CPE 0100 or equivalent Compass score

Terms Offered: Winter, Summer

### **CRJ 1123 Patrol Operations (3)**

Comprehensive study of police patrol operations, including vehicle patrol techniques, foot patrol, crimes in progress, prowler calls, building searches, stops and approaches and traffic crash investigation.

Prerequisite(s): CPE 0100 or appropriate Compass score

Instructor Permission Required.

Terms Offered: Winter, Summer

### **CRJ 1283 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 (OPOTC).

Prerequisite(s): Successful completion of COMPASS testing

Corequisite(s): CRJ 1284

Instructor Permission Required.

Terms Offered: TBA

### **CRJ 1284 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 (OPOTC).

Prerequisite(s): Successful completion of COMPASS testing

Corequisite(s): CRJ 1283

Instructor Permission Required.

Terms Offered: TBA

### **CRJ 2201 Police Administration (3)**

Examination of administrative design, including personnel selection, training, advancement, discipline and utilization of resources.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Fall

### **CRJ 2216 Community Relations (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 0100 and/or equivalent Compass score

Terms Offered: Spring

### **CRJ 2225 Forensic Science I (4)**

Search for, recognition and preservation of physical evidence found at crime scenes.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Fall

### **CRJ 2228 Criminal Investigation (3)**

Reconstruction of the sequences of a criminal act, including searching, preserving, and evaluating physical evidence including interviewing witnesses and interrogating suspects.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Winter, Summer

### **CRJ 2230 Forensic Science II (4)**

Familiarization with selected laboratory techniques commonly used by law enforcement agencies.

Prerequisite(s): CRJ 2225

Terms Offered: Spring

### **CRJ 2235 Social Justice (3)**

Exploration of job stresses; the social value and ethics of the criminal justice process.

Prerequisite(s): CPE 0100 or appropriate Compass score

Terms Offered: Spring

### **CRJ 2240 Criminal Law (3)**

Criminal procedures, criminal law, common defense and prosecutorial processes.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Winter, Summer

### **CRJ 2250 Community Resources (3)**

Community resources available to police officers, such as homeless shelters, detoxification centers and food pantries. Weekly discussion in two hours of seminar and eight hours of practicum.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Spring

### **CRJ 2280 Practicum (3)**

Supervised work experience in criminal justice agencies. First day attendance is mandatory.

Prerequisite(s): CRJ 1100, CRJ 1116, CRJ 1118, CRJ 1120, CRJ 1123, CRJ 1150, CRJ 2201, CRJ 2216, CRJ 2225, CRJ 2228, CRJ 2230, CRJ 2235 and CRJ 2240

Terms Offered: Spring

# (CSD) Computer Software Development

## **CSD 1100 CSD Program Orientation (1)**

Overview of Computer Software Development (CSD) Program. Introduction to campus resources and computer services. Time management, study skills, communication skills. Prerequisite(s): CPE 0200 and ITS 0800  
Terms Offered: Fall, Spring

## **CSD 1400 Database Management (3)**

Concepts of database management. Relational databases, database design, normalization. Introduction to SQL (Structured Query Language). Prerequisite(s): CPE 0200, CPE 0500 and ITS 1245  
Terms Offered: Spring

## **CSD 1500 Programming Fundamentals (3)**

Fundamental programming constructs and concepts. Study of variables, constants, looping, strings, flowcharting basics, programming logic and data validation techniques. Introduction to object-oriented programming. Prerequisite(s): CPE 0200, CPE 0500 and ITS 0800  
Terms Offered: Spring

## **CSD 2100 Systems Analysis and Design (3)**

A structured approach to the analysis and design of computer-based information systems. Prerequisite(s): CPE 0600, CSD 1400, CSD 1500 and MGT 2000  
Terms Offered: Spring

## **CSD 2200 JavaScript (3)**

Use JavaScript to create interactive web pages. Prerequisite(s): CSD 1500 and ITS 1500  
Instructor Permission Required.  
Terms Offered: Fall

## **CSD 2400 SQL Server Database Design (3)**

Database design theory, structure and management. Issues related to Microsoft SQL Server database installation and configuration. Prerequisite(s): CSD 1400  
Terms Offered: Fall

## **CSD 2420 Oracle Database Design (3)**

Oracle Database applications development. PL/SQL programming. Client/server database architecture. Prerequisite(s): CPE 0600 and CSD 1400  
Terms Offered: Spring

## **CSD 2500 Visual Basic Programming (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): CPE 0600 and CSD 1500  
Terms Offered: Spring

## **CSD 2520 Java Programming (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): CPE 0600 and CSD 1500  
Terms Offered: Fall

## **CSD 2540 C Programming (4)**

C++ program structure, language, syntax, and implementation details. Object-oriented programming language concepts. Prerequisite(s): CPE 0600 and CSD 1500  
Terms Offered: Spring

## **CSD 2800 Advanced Topics (3)**

Integration of programming, database, and web design. Project analysis, design and solution implementation. Writing a final report. Presentation preparation and delivery. Prerequisite(s): CSD 1400 and CSD 1500 and CSD 2520 or CSD 2540  
Terms Offered: Spring

# (CSE) CyberSecurity

## **CSE 1110 Introduction to CyberSecurity (3)**

Internet security basics, hackers, spyware, phishing, spam, zombies, Trojan horses, worms, viruses, wi-fi security, denial-of-service, web-blocking, firewalls and proxy servers. Installation and configuration of security tools and utilities. Prerequisite(s): NTK 1120  
Terms Offered: Fall

## **CSE 1120 CyberSecurity - Security + (3)**

Security baselines, network infrastructure security, web security, cryptography, operations security and security management. CompTIA Security+ certification objectives. Prerequisite(s): CSE 1110  
Terms Offered: Spring

## **CSE 2251 CyberSecurity - Security Professional I (3)**

Information security and risk management, access controls, application security, disaster recovery planning, cryptography and legal aspects of information security. First course of a two-course sequence covering the ISC2 Computer Information Systems Security Professional (CISSP) certification objectives. Prerequisite(s): CSE 1120  
Terms Offered: Fall

## **CSE 2252 CyberSecurity - Security Professional II (3)**

Information systems operations security, physical and environmental security, security architecture and design, and telecommunications and network security. Second of a two-course sequence covering the ISC2 Computer Information Systems Security Professional (CISSP) certification objectives. Prerequisite(s): CSE 2251  
Terms Offered: Spring

# (DAN) Dance

## **DAN 1100 Beginning Dance (1)**

Introduction to basic concepts and principles of modern/post modern dance through readings, studio experiences and discussions.

Terms Offered: Fall

## **DAN 1112 Ballet I (1)**

Development of beginning technical skills in ballet, including safe and efficient alignment and clear articulation of movement vocabulary.

Terms Offered: Fall

## **DAN 1113 Ballet II (1)**

Development of intermediate technical skills in ballet, including safe and efficient alignment and clear articulation of movement vocabulary.

Prerequisite(s): DAN 1112

Terms Offered: Spring

## **DAN 1120 Modern Dance (1)**

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.

Terms Offered: Fall, Spring

## **DAN 1130 Beginning Jazz Dance I (1)**

Basic fundamentals of jazz dance technique. Warm-ups, simple jazz style exercises, isolations, floor movements, movement dynamics, basic dance fundamentals and vocabulary in the jazz dance idiom.

Terms Offered: Fall, Spring

## **DAN 1131 Beginning Jazz Dance II (1)**

Intermediate fundamentals of jazz dance technique. Warm-ups, simple jazz style exercises, isolations, floor movements, movement dynamics, basic dance fundamentals and vocabulary in the jazz dance idiom.

Prerequisite(s): DAN 1130

Terms Offered: Spring

## **DAN 1135 Beginning Tap Dance (1)**

Tap dance technique. Coordination, rhythmic variations and performance skills through a series of tap combinations. Tap shoes required.

Terms Offered: Fall, Spring

## **DAN 1150 Dance Composition (1)**

Choreography as the stylistic use of available skills and means to make dance as art. Expressing movement based on personal experience. Development of new methodologies of practice that support creative development.

Terms Offered: Fall, Spring

## **DAN 1160 Dance History (1)**

Survey of the purposes, functions, and manifestations of dance forms from the beginning of the twentieth century to present. Relationships examined between dance and general cultural developments. Covers pioneers, artists and current media. Global Awareness.

Terms Offered: Fall, Spring

## **DAN 2215 Pointe Technique I (1)**

Intermediate ballet technique; a progressive development of movement concepts and vocabulary from Ballet I and Ballet II.

Prerequisite(s): DAN 1112 and DAN 1113

Instructor Permission Required.

Global Awareness.

Terms Offered: Fall, Summer

# (EBE) Experience Based Education

## **EBE 1000 Employability Skills (1)**

Life, career and educational goals; resume and cover letter; research organization; interviewing skills, discussion of professional image; follow-up letter.

Prerequisite(s): CPE 0100

Instructor Permission Required.

Terms Offered: Fall, Spring

## **EBE 1100 Prior Learning Portfolio (2)**

The development of a portfolio of prior learning experiences to be assessed for credit for college courses. Topics: overview of experiential learning and production of a work/life experience record, goals paper, learning statements, documentation of experiential learning and a portfolio suitable for assessment.

Prerequisite(s): Approval of coordinator. This course is required if seeking more than 4 hours of experiential credit

Instructor Permission Required.

Terms Offered: Fall, Spring

## **EBE 2603 Special Topics - Internship (3)**

Planned, structured, work experience in a professional work setting. Project-based approach to assisting an organization in accomplishing a goal or goals. Apply classroom theory and acquire new knowledge and skills. Learn about, react to, and write about internship organization and internship experience. A minimum of 45 hours (3 hours per week for 15-week term) of on-site supervised work in addition to off-site activities required to complete the project.

Prerequisite(s): EBE 1000, 6 hours of oral and written communication courses, 15 hours of course work relevant to the planned internship experience, approved placement and Instructor permission

Terms Offered: Fall, Spring, Summer

**EBE 2701 Co-Op Education I (1)**

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 150 documented hours (10 hours per week for 15-week term).

Prerequisite(s): EBE 1000 and approved co-op placement  
Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

**EBE 2702 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 300 documented hours (20 hours per week for 15-week term).

Prerequisite(s): EBE 1000 and approved co-op placement  
Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

**EBE 2703 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 450 documented hours (30 hours per week for 15-week term).

Prerequisite(s): EBE 1000 and approved co-op placement  
Instructor Permission Required.

Terms Offered: Fall, Spring

**EBE 2704 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 600 documented hours (40 hours per week for 15-week term).

Prerequisite(s): EBE 1000 and approved co-op placement  
Instructor Permission Required.

Terms Offered: Fall, Spring

**EBE 2801 Co-Op Education II (1)**

Continuation of valuable work experience. In addition to requirements of EBE 2701, a special project is required based on the technology. Workplace learning of a minimum of 150 documented hours (10 hours per week for 15-week term).

Prerequisite(s): EBE 2701, EBE 2702, EBE 2703 or EBE 2704 and approved co-op placement  
Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

**EBE 2802 Co-Op Education II (2)**

Continuation of valuable work experience. In addition to requirements of EBE 2702, a special project is required based on the technology. Workplace learning of a minimum of 300 documented hours (20 hours per week for 15-week term).

Prerequisite(s): EBE 2701, EBE 2702, EBE 2703 or EBE 2704 and

approved co-op placement

Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

**EBE 2803 Co-Op Education II (3)**

Continuation of valuable work experience. In addition to requirements of EBE 2703, a special project is required based on the technology. Workplace learning of a minimum of 450 documented hours (30 hours per week for 15-week term).

Prerequisite(s): EBE 2701, EBE 2702, EBE 2703 or EBE 2704 and approved co-op placement

Instructor Permission Required.

Terms Offered: Fall, Spring

**EBE 2804 Co-Op Education II (4)**

Continuation of valuable work experience. In addition to requirements of EBE 2804, a special project is required based on the technology. Workplace learning of a minimum of 600 documented hours (40 hours per week for 15-week term).

Prerequisite(s): EBE 2701, EBE 2702, EBE 2703 or EBE 2704

Instructor Permission Required.

Terms Offered: Fall, Spring

## (ECE) Early Childhood Education

**ECE 1101 Professional Development for Educators (1)**

Overview of basic skills and knowledge necessary for individuals planning a career path in education. Focus on course planning, scheduling, professional communication, academic preparation and individual learning styles.

Prerequisite(s): CPE 0100

Pre/Corequisite(s): CPE 0200 and ECE 1102

Terms Offered: Fall, Spring

**ECE 1102 Child Development and Education (3)**

Overview of developmental process in children aged birth to eight years. Theory, stages, and domains of development. Environmental factors, learning styles and relationships and their impact on development. Strategies for early intervention.

Pre/Corequisite(s): ECE 1101 and CPE 0200 and CPE 0300 or appropriate Compass scores.

Terms Offered: Fall, Spring

**ECE 1105 Language and Literacy in Education (3)**

Language and literacy development birth through eight. Foundational theories and practices enhancing language development, beginning reading writing skills. Study of children's literature, connecting language, phonemic awareness, and literacy activities to quality picture book titles, use of different genres. Introduction to American Sign Language (ASL), classroom use. Observations, methods, practical skills in Language Arts instructional and teacher-made materials.

Pre/Corequisite(s): CPE 0200 and ECE 1102

Terms Offered: Fall

**ECE 1108 Creative and Motor Development in Early Childhood (3)**

Creative and motor development birth through eight. Foundational learning theories in physical and creative development through play, visual art, music and movement. Participation in activities of art, drama, music and movement to enhance creative expression and development of critical thinking, processing and problem-solving skills of the young child. Observations and resource portfolio.

Pre/Corequisite(s): CPE 0200 and ECE 1102

Terms Offered: Fall

**ECE 1112 Cognitive Development in Early Childhood (3)**

Cognitive development birth through eight. Brain development, foundational cognitive development learning theories, and Ohio Department of Education Early Learning Content Standards. Best practices in enhancing processing skills, problem solving and critical thinking in curriculum content areas math, science, social studies. Planning and implementing small group activities, preparing teacher-made materials for use in advancement of mathematics, science and social studies skills, Observations, methods and instructional strategies/skills.

Pre/Corequisite(s): ENG 1111, CPE 0500 and ECE 1102

Terms Offered: Spring

**ECE 1115 Observation and Assessment in Early Childhood (4)**

Observing, recording, assessing, and interpreting behaviors of young children. Emphasis on a variety of assessment tools and appropriate methodologies for collecting data for decision making. Ten hours of observation and field experience required.

Prerequisite(s): ECE 1102 and CPE 0200 or equivalent Compass score

Terms Offered: Spring

**ECE 1118 Health, Safety, Nutrition (1)**

Survey of best practices in health and safety for early childhood programs. Preparing nutritious meals and snacks. Certification in CPR, first aid, communicable disease, and child abuse prevention and detection.

Terms Offered: Spring

**ECE 1131 Child Development Associate-A (4)**

First of two courses to prepare for Child Development Associate (CDA), Preschool and/or Infant/Toddler Endorsements. Course A includes Competency Goals I, V & VI, Autobiography, Professional Interview, Site Observation and completion of 9 personal resource files (1-4; 13-17). Provides students with 60 hours of 120 required clock hours for CDA in functional areas of professionalism; foundations of education; observation, recording and assessment; principles of child development; health, safety, and developmentally appropriate learning environments; managing effective program operations.

Pre/Corequisite(s): CPE 0100 and CPE 0500

Terms Offered: Fall

**ECE 1135 Child Development Associate B (5)**

Second of two courses to prepare for Child Development Associate (CDA), Preschool or Infant/Toddler Endorsements. Course B includes Competency Goals II, III, & IV, Parent Survey, Weekly Lesson Plans, and completion of 8 (PDF) personal resource files (5-12). Provides students with remaining 60 hours of 120 required clock hours for CDA in functional areas of physical and

intellectual development; social and emotional development; observation, recording and assessment; principles of child development; strategies to establish productive relationships with families; maintaining commitment to professionalism. Field work and field advisor evaluation.

Prerequisite(s): ECE 1131, CPE 0500 and CPE 0100

Terms Offered: Spring

**ECE 2100 Socioemotional Development in Early Childhood (3)**

Social and emotional development birth through eight. Foundational theories of social-emotional development, relational-based/attachment theories, classic and contemporary discipline systems. Positive child guidance and group management techniques to foster self-control and self-discipline. Aggressive behavior intervention methodologies. Emphasis on community-based environment, anti-bias curriculum and peace instruction to foster prosocial behaviors in young child. Observations required.

Pre/Corequisite(s): ECE 1102, ECE 1115 and CPE 0200

Terms Offered: Fall

**ECE 2110 Family, Community, Schools (3)**

Effect of family and community environment on the learner. Effect of culture, disability, and socioeconomic status on collaboration and interaction with families. Strategies to promote effective collaboration with emphasis on listening, communication, confidentiality, problem solving, stress management, ethics and role as a team member. Field observation and participation required.

Prerequisite(s): ECE 1102 and ENG 1111

Pre/Corequisite(s): ENG 1112

Terms Offered: Spring

**ECE 2120 Leadership, Management, Mentoring in Early Childhood Education (3)**

Guidelines for leading, staffing, organizing, budgeting, planning, monitoring and controlling for quality in programs for young children. Examination of leadership styles, teacher development, guiding and coaching in a variety of settings. Focus on creating culturally responsive and ethical programs through use of anti-bias teaching practices and incorporation of Code of Ethical Conduct in planning and implementation.

Prerequisite(s): ECE 1102, ECE 1115, and ENG 1111

Terms Offered: Spring

**ECE 2130 Practicum Field I (1)**

Field Experience I. Application of theory, planning and implementing appropriate lessons in all Ohio Department of Education (ODE) Early Learning Content areas, observational and assessment skills, guidance and behavior management skills, professionalism. Completion of all paper work required for entrance into field experience including FBI/BCI fingerprinting, proof of all certifications, personal references, physical exam. 105 hours supervised experiences in approved field site.

Prerequisite(s): ECE 1102, ECE 1105, ECE 1112, ECE 1115 and ECE 1118

Pre/Corequisite(s): ECE 2100

Corequisite(s): ECE 2133

Instructor Permission Required.

Terms Offered: Fall

**ECE 2133 Early Education Curriculum and Instruction (3)**

Plan, prepare and implement appropriate curriculum with emphasis on curriculum models, Ohio Department of Education Content Standards, goals, three-part objectives, lesson planning, teaching strategies, National Association for Education of Young Children (NAEYC) best practices, observation, documentation, screening, evaluation processes, review of classroom management principles, learning theories, code of conduct for professionalism and teaching skills. Begin preparation for Praxis Examination.

Prerequisite(s): ECE 1102, ECE 1105, ECE 1112, ECE 1115 and ECE 1118

Pre/Corequisite(s): ECE 2100

Corequisite(s): ECE 2130

Instructor Permission Required.

Terms Offered: Fall

**ECE 2135 Practicum Field II (2)**

Field Experience II. Application of theory, child development, and skills in planning and implementing appropriate lessons, units of study. Lead day planning for environment, support staff, managing transitions, guiding and managing both small and large group settings. Professional behaviors working with mentor teacher, support teachers, staff and parents. Completion of observational tools, including case studies, assessment tools, and documentation of learning expected. 210 hours supervised experiences and final evaluation by mentor teacher and Clark State instructor. Final capstone oral presentation and learning summaries of program goals and field experience.

Prerequisite(s): ECE 2130 and ECE 2133

Corequisite(s): ECE 2137

Instructor Permission Required.

Terms Offered: Spring

**ECE 2137 Seminar II (2)**

Preparation for field experience II, planning appropriate lessons in all content areas, including creative experiences, use of Ohio Department of Education (ODE) Early Learning Content Standards, planning for environment at field site, observations, assessments. Peer and teacher evaluations, small and large group planning, ten lead days, planning for routine, guidance, support staff and transitions. Analysis of experiences gained in field, preparation of capstone portfolio and final oral evaluation. Completion of all paper work, documentation needed for entering field site. Praxis examination practice.

Prerequisite(s): ECE 2130 and ECE 2133

Corequisite(s): ECE 2135

Instructor Permission Required.

Terms Offered: Spring

**ECE 2224 School Age Curriculum (1)**

Developmental tasks of school age children aged 5-12 years. Curriculum development and implementation. Strategies for providing quality before and after school and summer programs.

Prerequisite(s): ECE 1102 and CPE 0200 or equivalent end Compass score

Terms Offered: Fall

**ECE 2226 Infant Toddler Curriculum (1)**

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): CPE 0200 and ECE 1102

Terms Offered: Fall

**ECE 290B Bridge Course/ECE 211- Sensory Motor Skills (1)**

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.

Instructor Permission Required.

Terms Offered: Fall

## (ECO) Economics

**ECO 1100 General Economics (3)**

Introduction to basic economic concepts and topics such as resource allocation, costs, supply, demand, public goods, capitalism, market failures, gross domestic product, unemployment, population, inflation, unemployment, taxation, money creation, monetary policy, international trade and other policy issues. Serves as General Education elective for students whose programs do not require ECO 2210 and ECO 2220.

Prerequisite(s): ENG 1111

Terms Offered: Fall, Spring

**ECO 2210 Principles of Macroeconomics (3)**

Fundamentals of economics from a macro perspective including gross domestic product (GDP), level of employment, inflation, monetary and fiscal policies, trends and cycles.

Prerequisite(s): ENG 1111

Terms Offered: Fall, Spring

**ECO 2220 Principles of Microeconomics (3)**

Fundamentals of economics from a micro perspective including elasticity, market efficiency, government intervention, consumer choice theory, production cost, market structures, market pricing, externalities, imperfect information and public goods.

Prerequisite(s): ENG 1111

Terms Offered: Fall, Spring

## (EDU) Education

**EDU 1110 Introduction to Education (3)**

Overview of the foundations of education in the United States. Interdisciplinary and curricular foundations to provide preservice teachers with global understanding of the teaching profession. Issues and controversies confronting American education today. Twelve hours of field experience required.

Pre/Corequisite(s): CPE 0200

Instructor Permission Required.

Terms Offered: Fall

### **EDU 2216 Technology for Educators (3)**

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 1100

Terms Offered: Spring

### **EDU 2217 Individuals with Exceptionalities (3)**

Survey course covering identification, developmental characteristics, prevalence, and educational and intervention strategies for exceptional children and youth across education and community settings. Emphasis on service models, study of historical movement, issues and the legal framework for inclusion. Inclusive classroom observation hours and research project.

Prerequisite(s): ECE 1102 or EDU 1110 and ENG 1111

Pre/Corequisite(s): ENG 1112

Terms Offered: Spring

## **(EMS) Emergency Medical Services**

### **EMS 1100 EMT Theory & Practice (7)**

Meets current standards of the State of Ohio Division of Emergency Medical Services (EMS) for the Emergency Medical Technician (EMT). 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 eligible to sit for Ohio's EMT certification testing.

Prerequisite(s): CPE 0100 or Compass score minimums: Reading 70, Writing 70

Corequisite(s): Criminal background check and EMS 1171

Instructor Permission Required.

Terms Offered: Fall, Spring

### **EMS 1107 EMT Advanced Theory & Practice (8)**

First of two courses to meet current standards of State of Ohio Emergency Medical Technician (EMT) Advanced 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, medical emergencies, trauma, special considerations and assessment based management. Laboratory. Field practice incorporates clinical practice in the pre-hospital and hospital ALS settings. Observing and practicing EMT Advanced skills. Includes emergency department, IV therapy team, respiratory therapy, pediatrics and intubation in the operating room.

Prerequisite(s): Equivalent Compass score or CPE 0100 and Equivalent Compass score or CPE 0500 and Ohio EMT Basic certification

Terms Offered: Spring

### **EMS 1110 Emergency Medical Responder (3)**

Meets current standards of the State of Ohio Division of EMS for the First Responder. A combination of subject matter and laboratory experiences designed to prepare individuals to become members of the pre-hospital health care team, working under the direction of a physician. Patient assessment, airway management, CPR, automated defibrillation, epinephrine auto-injector administration, illness and injury management, and delivery and newborn care. Eligibility to sit for Ohio's First Responder certification testing.

Instructor Permission Required.

Terms Offered: Spring

### **EMS 1112 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, intensive care and operating room rotations.

Corequisite(s): EMS 1131

Terms Offered: Fall

### **EMS 1114 Paramedic Hospital Practice II (1)**

Continuing clinical practice in the hospital setting observing and practicing skills evaluated in the college laboratory. Includes emergency department, intensive care and operating room rotations.

Prerequisite(s): EMS 1112

Corequisite(s): EMS 1133

Instructor Permission Required.

Terms Offered: Spring

### **EMS 1118 Paramedic Field Practice I (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.

Corequisite(s): EMS 1131

Instructor Permission Required.

Terms Offered: Fall

### **EMS 1120 Paramedic Field Practice II (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 1118

Corequisite(s): EMS 1133

Instructor Permission Required.

Terms Offered: Spring

**EMS 1131 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): CPE 0200, CPE 0500, or Compass score minimums: Reading 70, Writing 70, Math 47 and Ohio Basic EMT Certification, BIO 1105, and MST 1105

Corequisite(s): EMS 1112, EMS 1118, and EMS 1132

Instructor Permission Required.

Terms Offered: Fall

**EMS 1132 Paramedic Practical Skills Lab I (2)**

Practical skills lab to support course outcomes and learning objectives of EMS 1131.

Corequisite(s): EMS 1131

Terms Offered: Fall

**EMS 1133 Paramedic Theory II (6)**

Application of concepts from Paramedic Theory I. 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, trauma, acute deterioration of chronic illness, patients with special challenges and victims of abuse or assault. Management of emergency scene.

Prerequisite(s): EMS 1131, EMS 1112, EMS 1118, and EMS 1132

Corequisite(s): EMS 1114, EMS 1120, and EMS 1134

Instructor Permission Required.

Terms Offered: Spring

**EMS 1134 Paramedic Practical Skills Lab II (2)**

Practical skills lab to support course outcomes and learning objectives of EMS 1133 and previously learned skills.

Corequisite(s): EMS 1133

Terms Offered: Spring

**EMS 1171 Basic Life Support: CPR (0)**

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.

Terms Offered: Fall, Spring

**EMS 2220 Advanced Topics In EMS I (3)**

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. 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 Paramedic certification or instructor permission

Instructor Permission Required.

Terms Offered: Fall

**EMS 2240 Advanced Topics In EMS II (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. Also, legal aspects of basic and advanced prehospital care including criminal and civil law with an emphasis to expand knowledge base.

Prerequisite(s): EMS Certification and Hazardous Material Operation Certificate

Instructor Permission Required.

Terms Offered: Spring

**EMS 2288 Paramedic Theory/RNs (6)**

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. 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

Instructor Permission Required.

Terms Offered: Spring

**(ENG) English****ENG 1111 English I (3)**

Writing a variety of academic and argumentative essays; language issues and library skills. Writing intensive.

Prerequisite(s): CPE 0300 with a grade of B or better or CPE 0400 with a grade of C or better, and/or equivalent Compass score

Corequisite(s): CPE 0200

Terms Offered: Fall, Spring

**ENG 1112 English II (3)**

Critical thinking, persuasive writing, research skills, and literary analysis. Writing intensive.

Prerequisite(s): ENG 1111 with a grade of C or higher

Terms Offered: Fall, Spring



**ENG 1600 Introduction to Literature (3)**

Critical readings, discussion and analysis of poetry, fiction, and drama.

Prerequisite(s): CPE 0100, grade of B or better in CPE 0300 or a grade of C or better in CPE 0400

Pre/Corequisite(s): ENG 1111

Global Awareness.

**ENG 2211 Business Communication (3)**

Preparing and analyzing business documents using fundamental business communication principles and standards, technology, critical thinking skills and research techniques in preparation for the workplace. Substantial focus on customs and traditions of a non-English-speaking country and the impact of those customs and traditions on expanding American business to that country. Development of oral communication skills using appropriate technology, strategy and methods. Will not necessarily transfer as the equivalent of ENG 1122. Use of digital recording and PowerPoint slide projection equipment in online sections.

Prerequisite(s): ENG 1111 or OAD 1105

Global Awareness.

Terms Offered: Fall, Spring

**ENG 2230 Technical Report Writing (3)**

Technical communications encountered on the job, including memos, technical definitions, descriptions, instructions and procedures, proposals, progress reports, analytical reports, oral presentations and e-mail.

Prerequisite(s): ENG 1111, ITS 1100, ITS 1200, and/or basic word processing and keyboarding skills

Terms Offered: Fall, Spring, Summer

**ENG 2250 Creative Writing (3)**

Introduction and discussion of three major literary genres: fiction, poetry and drama. Writing a collection of poems, short and long fiction, a one-act script, a screen play or play, and a literary analysis.

Prerequisite(s): ENG 1111

Pre/Corequisite(s): ENG 1112

Terms Offered: Fall

**ENG 2300 Great Books: World Literature (3)**

Chronological selection of the major works, genres, and periods of world literature beginning with the ancients and progressing through modern times.

Prerequisite(s): ENG 1111

Corequisite(s): ENG 1112

Global Awareness.

Terms Offered: Fall, Spring

**ENG 2500 American Literature (3)**

Themes, ideas and periods in American literature from its beginning through modern times.

Prerequisite(s): ENG 1111

Corequisite(s): ENG 1112

**ENG 2610 British Literature to 1700 (3)**

Survey of the major works and periods of British literature from 700 to 1700.

Prerequisite(s): ENG 1111

Pre/Corequisite(s): ENG 1112

Global Awareness.

Terms Offered: Fall

**ENG 2620 British Literature from 1700 to the Present (3)**

Survey of major works, themes ideas and periods of British literature from 1700 to the present time.

Prerequisite(s): ENG 1111 and ENG 1112

Terms Offered: Spring

## (ENT) Engineering Technology

**ENT 1100 Introduction to Engineering Technology (3)**

Engineering Technology as a profession. Careers, basic math, simple trigonometry, sketching, print reading, tolerances; problem solving, design and project management skills.

Prerequisite(s): CPE 0200, CPE 0500, ITS 0800, or equivalent

Compass score

Terms Offered: Fall

**ENT 1200 Computer Basics for Engineering Technology (3)**

Computer uses in technology. Word processing, spreadsheet, presentation and database software. Create technical reports and manage project information that includes; defining technical terms, creating SPC charts and diagrams, writing technical manuals and creating presentations. Internet and E-mail as it relates to technical information.

Prerequisite(s): CPE 0200 and ITS 0800

Terms Offered: Fall, Spring

**ENT 1300 Dimensional Metrology (3)**

Use of tools and precision measuring equipment to maintain, install and align mechanical equipment (bearings, couplings, flexible drives, gearing and gear reducers). Precision measurement tools including scales, calipers, micrometers, dial indicators and others. Computer interfaces in metrology. Statistical process control including control charts, cause and effect diagrams and Pareto diagrams. Instruction in part visualization from drawings; including location of key features, drawing dimensioning specifications. Beginning concepts in geometric dimensioning and tolerancing.

Prerequisite(s): CPE 0200, CPE 0500, and ITS 0800

Terms Offered: Fall, Spring

**ENT 1400 Circuit Analysis (3)**

Principles and concepts of electricity, current flow; energy, power, work, transient effects, ac and dc circuit analysis, and analysis by computer simulation.

Prerequisite(s): CPE 0200 and CPE 0600

Terms Offered: Fall

### **ENT 1500 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 0100

Pre/Corequisite(s): CPE 0500

Terms Offered: Spring

### **ENT 2100 Manufacturing Processes (3)**

Detailed overview of manufacturing process, including machine tool operations, metal forming, welding processes, and casting. Setup and operation of metal lathe, mill, drill press, band saw and grinder for the completion of lathe and milling projects.

Prerequisite(s): ENT 1100 and ENT 1200

Terms Offered: Fall

### **ENT 2200 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 1100, MTH 2200, and PHY 1501

Terms Offered: Fall

### **ENT 2300 Strength of Materials (3)**

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 2200

Terms Offered: Spring

### **ENT 2400 Computer Numerical Control (3)**

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): ENT 1100

Pre/Corequisite(s): ENT 2100

Terms Offered: Fall, Spring

### **ENT 2500 Digital Switching (3)**

Principles and applications of digital systems. Combinational and sequential logic from a systems approach. Integrated circuits, digital timing diagrams and waveforms. Programmable logic devices.

Prerequisite(s): INT 1500 and MTH 1340

Terms Offered: Fall

### **ENT 2600 Engineering Design (3)**

Analysis of machine design. Design and development of engineering drawings for machine components. Converting engineering drawings into programs using computer simulations and CAM software to test programs and produce parts. Develop an all-terrain robot.

Prerequisite(s): CAD 1101 and ENT 1100

Terms Offered: Fall

### **ENT 2700 Engineering Technology Project (3)**

Capstone class. Application of industrial and engineering technology skills to design, fabricate, install, document and debug a class-designed project of a scale and type normally done in-house by local plants in the areas of engineering and design.

Prerequisite(s): ENT 2600, ENT 2100, and ENG 1112

Terms Offered: Spring

## **(FFC) Fire Fighter Certificate**

### **FFC 1050 Firefighter I (5)**

Expanded initial firefighter training. Basic and Intermediate level training in all aspects of firefighting for those beginning a career path as a firefighter.

Prerequisite(s): CPE 0100 or Equivalent COMPASS score and NIMS 100, 700 ICS

Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

### **FFC 2010 Fire Fighter II (5)**

Advanced techniques of fire behavior, hazardous material and rescue.

Prerequisite(s): FFC 1050

Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

### **FFC 2050 Firefighter I & II (11)**

Firefighter Training Program. All aspects of firefighting hazardous materials and rescue.

Prerequisite(s): CPE 0100 or Equivalent COMPASS score and NIMS 100, 700 ICS

Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

### **FFC 2060 PSI (Public Safety Instructor) (5)**

Meets the State of Ohio and (NFPA) National Fire Protection Association 1041 Standard for Fire Service Instructor I and II. Basic instructional knowledge to develop skills for preparing and presenting training for fire and emergency services personnel.

Prerequisite(s): FFC 2050

Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

## **(FRN) French**

### **FRN 1111 French I (3)**

Beginning-level vocabulary and structures of French. Practice speaking, reading, writing, and listening in the target language. Introduction to indicative mood of regular and irregular verbs; preterit and imperfect. Not for credit if successfully completed equivalent course at any other accredited institution.

Prerequisite(s): CPE 0100 and CPE 0300

Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall

### **FRN 1112 French II (3)**

Further study of the vocabulary and structure of the French language; practice in speaking, reading, listening comprehension and writing. Introduction to commands, present and imperfect subjunctive moods, future and conditional. Not for credit if successfully completed equivalent course at any other accredited institution.

Prerequisite(s): FRN 1111 with a C or higher or equivalent course at accredited institution or instructor permission

Global Awareness.

Terms Offered: Spring

## **(GEN) General Studies**

### **GEN 1100 College Readiness (1)**

Recognize and demonstrate an understanding of college resources, expectations, and academic techniques required for college readiness. Create an academic guide; develop a MAP (My Academic Plan) and profile.

Terms Offered: Fall, Spring

## **(GEO) Geography**

### **GEO 1100 World Human Geography (3)**

Summary of the distribution of culture, language, religion, and economic and political activities across the world; the role of ethnicity and the occurrence of ethnic conflict; map of the distribution of human activities, relationships between culture and politics, culture and religion, economic development and natural resources; rural and urban settlements and patterns of population growth.

Prerequisite(s): CPE 0200 and CPE 0300 or appropriate Compass score

Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall

### **GEO 2200 World Regional Geography (3)**

Human interaction with the physical environment across regions; cultural practices, religious practices and political practices and their interaction with the natural surroundings; human impact on the environment and the impact of the environment on human activities; mapping the distribution of these activities across the globe; comparing and contrasting major world regions.

Prerequisite(s): CPE 0200, grade of B or better in CPE 0300 or a grade of C or better in CPE 0400 or appropriate Compass score

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring

## **(GLG) Geology**

### **GLG 1114 Ohio Field Geology (3)**

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.

Co-Prerequisite(s): GLG 1130 and GLG 1131

Instructor Permission Required.

Terms Offered: Spring/Summer

### **GLG 1129 Survey of Earth Science (3)**

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 0100 or or equivalent Compass score

Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

### **GLG 1130 Earth and Space 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. This course contains a lab and may not transfer.

Prerequisite(s): CPE 0100 and or equivalent Compass score

Terms Offered: Fall, Spring, Summer

### **GLG 1131 Physical Geology (4)**

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 0100 or appropriate Compass score

Terms Offered: Fall, Spring, Summer

### **GLG 1132 Historical Geology (4)**

Study of earth in space; physical evolution of oceans, atmosphere, and continents; origins of life and biological evolution; physical and biological development of the North American continent.

Prerequisite(s): CPE 0100 or appropriate Compass score

Terms Offered: Fall, Spring

### **GLG 1133 Environmental Geology (4)**

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 0100 or appropriate Compass score

Terms Offered: Fall, Spring, Summer

### **GLG 2200 Natural Disasters (3)**

This course is an introduction to the geological and natural processes that effect the human civilization in a variety of catastrophic ways. Natural disasters covered will include but not limited to: landslides, volcanism, earthquakes, severe weather, and flooding. Each hazard will be examined in terms of science, prediction, integration and avoidance.

Prerequisite(s): CPE 0100 or appropriate Compass score

Terms Offered: Spring

## **(GPH) Graphic Design**

### **GPH 1000 Intro to Graphic Design (4)**

Survey of graphic design as a profession, theory and practice, basic principles, fundamentals, and public perception. Introduction to the Macintosh (Mac) as an artistic tool. Introduction to QuarkXpress/Indesign, Adobe Illustrator, and Adobe Photoshop.

Prerequisite(s): CPE 0100 and/or equivalent Compass score

Terms Offered: Fall

### **GPH 1110 Digital Illustration I (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 1000 and ART 1111

Terms Offered: Spring

### **GPH 1112 Typography Seminar (3)**

The study of type characteristics. Practical application of basic and intermediate typographic principles within the design process. Use of QuarkXpress and Indesign.

Prerequisite(s): GPH 1000

Instructor Permission Required.

Terms Offered: Spring

### **GPH 1201 Electronic Imagery I (3)**

Basic to intermediate image editing from scanning and retouching images to working with selections, layers, type and composite imagery. Adobe Photoshop utilized.

Terms Offered: Spring

### **GPH 2011 Computer Layout I (3)**

Introduction to layout and design using a variety of layout formats in black and white and/or color. Creative problem solving through the use of thumbnails and computer refined comprehensives. Software: Quark Xpress/Indesign and Adobe Photoshop.

Prerequisite(s): GPH 1112 and GPH 1201

Terms Offered: Fall

### **GPH 2012 Computer Layout II (3)**

Advanced layout and design using a variety of layout formats in black and white and/or color. Creative problem solving through the use of thumbnails and computer refined comprehensives. Software: Quark Xpress, Adobe Indesign, Adobe Illustrator, and Adobe Photoshop.

Prerequisite(s): GPH 2011

Terms Offered: Spring

### **GPH 2051 Professional Development (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, Adobe Indesign.

Prerequisite(s): GPH 2011

Corequisite(s): GPH 2012

Terms Offered: Spring

### **GPH 2085 Graphic Design Internship (3)**

Students assemble an actual design studio. Creating work for "real-world" clients, complete with deadlines, budget and client interactions. Relating academic studies to the world of work, application of the principles and theories learned in classroom experiences, establishing learning outcomes and preparing related reports.

Corequisite(s): none

Terms Offered: Spring

### **GPH 2111 Digital Illustration II (3)**

Continuation of GPH 1110. Advanced study in developing illustrations. Special emphasis placed on using Adobe Illustrator and Adobe Photoshop to produce professional quality illustrations and information graphics.

Prerequisite(s): GPH 1110

Terms Offered: Fall

### **GPH 2120 Logo, Symbol, Corporate I.D. (3)**

The application and study of type, logo/trademark and symbols for the creation of identification systems. Software: Adobe Illustrator.

Prerequisite(s): GPH 1110 and GPH 1112

Terms Offered: Fall

### **GPH 2202 Electronic Imagery II (3)**

Advanced image editing from scanning and retouching images to working with selections, layers, type and composite imagery. Adobe Photoshop utilized.

Prerequisite(s): GPH 1201

Terms Offered: Fall

## **(GST) Geospatial Technologies**

### **GST 1000 Geospatial Program Orientation (1)**

Overview of the Geospatial Technologies Program. Introduction to campus resources and time-management, study and communication skills.

Prerequisite(s): CPE 0200, CPE 0300 and ITS 0800

Terms Offered: Fall

**GST 1100 Introduction to Geospatial Technologies (3)**

Introduction to Geographic Information Systems (GIS). Functionality and capabilities of a GIS. Concepts of cartography. Processing spatial data and solving geospatial problems. Coordinate systems and map projects.  
 Prerequisite(s): CPE 0200, CPE 0500 and ITS 0800  
 Corequisite(s): ITS 1100  
 Terms Offered: Fall

**GST 1400 Georeferencing and Mapping (3)**

Coordinate systems. Processing spatial data and solving geospatial problems. Surveying and cartography. Acquisition and use of locational data using both continuous and discrete georeferencing methods. Translating data into correct map form.  
 Prerequisite(s): CPE 0500, ITS 1100 and GST 1100  
 Pre/Corequisite(s): MTH 1280  
 Terms Offered: Spring

**GST 1500 Remote Sensing (3)**

Collection and processing of aerial data; interpretation of aerial photography data. Map analysis. Current technology and Geographic Information Systems (GIS) relationship highlighted.  
 Prerequisite(s): CPE 0700, GST 1000 and GST 1100  
 Pre/Corequisite(s): GST 1400  
 Terms Offered: Spring

**GST 2100 Intermediate GIS (3)**

Creation and management of geographic information within a Geographic Information System (GIS). Higher-level applications of and decision making with ArcGIS software. Advanced analysis tools and techniques for visualizing, creating, and managing geographic data within a geographic information system (GIS). Conceptual models and query languages. Metadata creation and editing.  
 Prerequisite(s): GST 1400  
 Pre/Corequisite(s): CSD 1400  
 Terms Offered: Fall

**GST 2350 Programming for GIS (3)**

Introduction to the basic programming concepts and methodologies for customizing and/or extending the available functions in a Geographic Information System (GIS). Development platforms for GIS: ArcObjects, Google Earth, ArcExplorer and Visual Earth. Programming for geoprocessing. Modifying cartographic objects.  
 Pre/Corequisite(s): CSD 1500 and GST 2100  
 Terms Offered: Spring

**GST 2550 Photogrammetry (3)**

Nature of aerial image data. Collection and processing of aerial data; interpretation of aerial photography data. Stereoscopy and orthoimagery. Map analysis. Current technology and Geographic Information Systems (GIS) relationship highlighted. Characteristics of geo-referenced data.  
 Prerequisite(s): GST 1500  
 Pre/Corequisite(s): STT 2640  
 Terms Offered: Fall

**GST 2700 Advanced Topics in Geospatial Technology (4)**

Use of geospatial technology in business, science, government, education and research. Modeling and decision making using spatial data. Legal and ethical aspects. Trends in geospatial technology. Geodatabases. Capstone project.  
 Prerequisite(s): GST 2100 and CSD 1400  
 Terms Offered: Spring

**GST 2750 GIS Analysis for Intelligence (3)**

The intelligence process. Use of GIS to solve geospatial problems and shape military and civilian operations.  
 Prerequisite(s): GST 2100 and GST 2350  
 Terms Offered: Spring

## (HON) Honors

**HON 2810 Honors: Science and Religion (3)**

To explore the models relating science and religion. Specific topics include naturalism, supernaturalism, miracles, cosmology/creation, evolution, the nature of the human person and evidence for life after death from Western and Asian religious perspectives as well as current scientific understanding.  
 Prerequisite(s): ENG 1112 and GPA of 3.25  
 Global Awareness.  
 Terms Offered: Spring

**HON 2920 Honors: Literature, Gender, and Humanism (3)**

Interdisciplinary study of ethical issues as depicted in great works of literature. Focus is on literature as providing a rich context for humanistic approach to learning more about ourselves and how we ought to live.  
 Prerequisites: minimum GPA of 3.25 and ENG 1112  
 Terms Offered: Spring

## (HRM) Human Resource Management

**HRM 1725 Human Resource Management (3)**

Examination of the human resource functions in the business organization. Ethical and legal considerations, job analysis, recruitment, selection, training and development, performance management, compensation, safety and health, employee and labor relations and global human resources. Psychological forces motivating workers, discipline, and morale.  
 Prerequisite(s): MGT 1060 or MGT 1120  
 Terms Offered: Fall, Spring, Summer

**HRM 2300 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 1725  
 Terms Offered: Fall

### **HRM 2350 Employment Law (3)**

Thorough examination of laws regulating employment relationship, discrimination, and employment environment. Includes legal concepts and forums, laws pertaining to employment benefits and employment discrimination. Application through team project and case studies.

Prerequisite(s): HRM 1725

Terms Offered: Fall

### **HRM 2400 Staffing (3)**

Staffing models, recruitment strategies, legal compliance, equal opportunity laws, assessment methods, selection process and staffing management. Application in mock interviews.

Prerequisite(s): HRM 1725

Terms Offered: Spring

### **HRM 2450 Compensation and Benefits (3)**

Broad study of organizational compensation systems, including legal issues, basis for pay, pay structures, executive compensation and required and discretionary benefits. Creation of compensation plans.

Prerequisite(s): HRM 1725

Terms Offered: Spring

## **(HST) History**

### **HST 1110 Western Civilization to 1600 (3)**

The history of Western Civilization from early man to 1600. Focus on the social, economic, political, religious and cultural development of the ancient, medieval and early modern worlds.

Prerequisite(s): CPE 0100 or appropriate Compass score

Pre/Corequisite(s): CPE 0300

Global Awareness.

Terms Offered: Fall, Spring, Summer

### **HST 1120 Western Civilization Since 1600 (3)**

The history of Western Civilization from 1600 to the present. Focus on the social, economic, political, religious and cultural evolution of the Western world from the age of reason to the Twenty-First Century.

Prerequisite(s): CPE 0100 or appropriate Compass score; grade of B or better in CPE 0300 or a grade of C or better in CPE 0400

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring, Summer

### **HST 1210 American History to 1865 (3)**

American history from before colonization to the Civil War. Focus is on the political, social, economic and cultural developments that shaped colonial, early national and antebellum United States.

Prerequisite(s): CPE 0100 or appropriate Compass score

Pre/Corequisite(s): CPE 0300

Global Awareness.

Terms Offered: Fall, Spring, Summer

### **HST 1220 American History Since 1865 (3)**

American history from the end of the Civil War to the present day. Focus is on political, social, cultural and economic events that shaped current United States history.

Prerequisite(s): CPE 0100 or appropriate Compass score; grade of B or better in CPE 0300 or grade of C or better in CPE 0400

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring, Summer

### **HST 2200 Topics in African American History and Culture (3)**

The history of African American from 1500 to the present. Focus on African background, social, economic, political, religious and cultural development in the Americas.

Prerequisite(s): ENG 1111 and college-level American history course recommended

Pre/Corequisite(s): ENG 1112

Global Awareness.

Terms Offered: Fall

## **(HUM) Humanities**

### **HUM 2899 Capstone Seminar (3)**

Interdisciplinary approach to the study of the human condition, including readings from the natural and social sciences, literature, history, religion and philosophy; course content will vary.

Prerequisite(s): ENG 1112 and 40 credit hours earned

Global Awareness.

Terms Offered: Fall, Spring

## **(INT) Industrial Technology**

### **INT 1100 Industrial Safety (3)**

An introduction to industrial regulatory safety terminology and requirements. (OSHA general industry 30-hour course completion card issued to successful course completers.)

Prerequisite(s): CPE 0200

Terms Offered: Fall, Spring, Summer

### **INT 1201 Hydraulics and Pneumatics I (3)**

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 0100 and CPE 0500

Pre/Corequisite(s): INT 1100 or Department approval

Terms Offered: Fall, Spring, Summer

### **INT 1202 Hydraulics and Pneumatics II (3)**

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 1201

Terms Offered: Fall, Spring, Summer

### **INT 1300 Electrical Systems (3)**

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 0100 and CPE 0500

Pre/Corequisite(s): MTH 1115

Terms Offered: Fall, Spring, Summer

### **INT 1350 Motor and Motor Controls (3)**

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. Basic industrial mechanical power transmission devices.

Prerequisite(s): INT 1300

Terms Offered: Fall, Spring, Summer

### **INT 1400 Mechanical Maintenance (3)**

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 0100 and CPE 0500

Terms Offered: Fall, Spring, Summer

### **INT 1500 Electronic Systems (3)**

Detailed study of analog electronic circuits and devices. Emphasis placed on operating parameters of linear (analog) circuits; techniques of circuit analysis applied as an integral part of the course.

Prerequisite(s): CPE 0200

Lab Fee: \$15.00

Terms Offered: Fall, Spring, Summer

### **INT 2200 Hydraulic and Pneumatic Trouble Shooting (3)**

Location, identification and correction of various inserted faults in an industrial quality electro-hydraulic and electro-pneumatic systems.

Prerequisite(s): INT 1200

Terms Offered: Fall, Spring, Summer

### **INT 2300 Electrical Troubleshooting (3)**

Maintenance and troubleshooting of motors, solenoids, electrical controls, electrical circuitry and sensors using common testing equipment. Diagnose problems at the component, machine and inter-machine levels. Introduction and operation of the Computer Integrated Manufacturing System.

Prerequisite(s): INT 1350

Terms Offered: Fall, Spring, Summer

### **INT 2350 Electrical Distribution (3)**

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 1350

Terms Offered: Fall, Spring, Summer

### **INT 2400 Industrial Machine Maintenance (3)**

Skills to troubleshoot 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 1350, INT 1400, and INT 2300

Terms Offered: Fall, Spring, Summer

### **INT 2500 Programmable Logic Control (3)**

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.

Prerequisite(s): INT 1300

Terms Offered: Fall, Spring, Summer

### **INT 2550 Automated Systems (3)**

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 2500

Terms Offered: Fall, Spring, Summer

### **INT 2800 Industrial Technology Projects (3)**

Capstone class to apply skills 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.

Prerequisite(s): ENG 1112 and INT 2300

Terms Offered: Fall, Spring, Summer

## **(ITS) Information Technology Systems**

### **ITS 0800 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 0100

Terms Offered: Fall, Spring, Summer

### **ITS 0810 Keyboarding (1)**

Proper keyboarding techniques, correct fingering techniques, development of speed and accuracy on the keyboard. Office ergonomics and basic electronic file management.

Prerequisite(s): CPE 0200 and ITS 0800

Terms Offered: Fall, Spring, Summer

**ITS 1100 Information Technology Basics (3)**

Overview of Clark State's online services, Windows 7, basic word processing concepts (Word 2010), electronic mail, WWW research techniques and OhioLINK. Students with little or no keyboarding experience should expect to take longer to complete assignments.

Prerequisite(s): ITS 0800, ITS 0810 and CPE 0200

Terms Offered: Fall, Spring, Summer

**ITS 1105 Computer Concepts and Office Productivity Tools (3)**

Overview of basic computer concepts, basic word processing, spreadsheets, databases and presentation graphic skills.

Prerequisite(s): ITS 0800, ITS 0810 and CPE 0200

Terms Offered: Fall, Spring, Summer

**ITS 1200 Windows Concepts (2)**

Familiarization with the mouse and a graphical operating environment. Topics include all major aspects of Microsoft Windows 7. Knowledge of a personal computer keyboard strongly recommended.

Prerequisite(s): ITS 0800, ITS 0810 and CPE 0200

Terms Offered: Fall, Spring, Summer

**ITS 1210 Keyboarding/Word Processing (2)**

Proper keyboarding techniques. Creating and editing documents using packaged word processing software (Word 2010). Strongly recommended for students who have few or no keyboarding skills. Can be used as a substitute for ITS 1215.

Prerequisite(s): ITS 0800, ITS 0810 and CPE 0200

Terms Offered: Fall, Spring, Summer

**ITS 1215 Beginning Word Processing (1)**

Basic creation and editing of documents using packaged word processing software (Word 2010). Keyboarding skills strongly recommended. Students with minimal computer and keyboarding skills will take longer in completing assigned tasks. ITS 1210, which teaches keyboarding skills and beginning word processing skills, may be substituted for ITS 1215.

Prerequisite(s): CPE 0200, ITS 0800 and ITS 0810

Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

**ITS 1216 Intermediate Word Processing (2)**

Formatting issues, intermediate and advanced; automating procedures such as mail-merge and macros; exchanging data between applications. (Word 2010)

Prerequisite(s): ITS 1215

Terms Offered: Fall, Spring, Summer

**ITS 1220 Presentation Graphics (1)**

Covers the basics as well as more advanced PowerPoint applications. Topics include creation and formatting of presentations and enhancing presentations appropriately for their intended use.

Prerequisite(s): CPE 0200, ITS 0800 and ITS 0810

Terms Offered: Fall, Spring, Summer

**ITS 1235 Beginning Spreadsheet (1)**

Basic creation and manipulation of data within an electronic spreadsheet including 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.

Prerequisite(s): CPE 0200, ITS 0800 and ITS 0810

Terms Offered: Fall, Spring, Summer

**ITS 1236 Intermediate Spreadsheet (2)**

Intermediate spreadsheet manipulation techniques using packaged Excel 2010 software (i.e., managing files and memory, graphing, database functions, functions, programming and formulas).

Prerequisite(s): ITS 1235

Terms Offered: Fall, Spring, Summer

**ITS 1245 Beginning Database (1)**

Basic database manipulation (e.g. creating, updating and generating reports) using packaged Access 2010 software. Keyboarding skills strongly recommended.

Prerequisite(s): CPE 0200, ITS 0800 and ITS 0810

Terms Offered: Fall, Spring, Summer

**ITS 1246 Intermediate Database (2)**

Formatting issues, intermediate and advanced; automating procedures like mail merge and macros; exchanging data between applications.

Prerequisite(s): ITS 1245

Terms Offered: Fall, Spring, Summer

**ITS 1310 Introduction to Computers and Networks (2)**

Fundamentals of computers and computer networks. Computer hardware and computer operating systems. Data storage, various input/output devices, computer/Internet security, wired and wireless networks. How the Internet works.

Prerequisite(s): ITS 0800 and CPE 0200

Terms Offered: Fall

**ITS 1320 Introduction to Scripting (2)**

Introduction to computer scripting languages. Windows basic command-line scripting techniques and processes. Basics of Windows Powershell scripting language.

Prerequisite(s): ITS 0800

Terms Offered: Fall

**ITS 1400 Web Design Essentials (2)**

Study of web page design. Basic HTML coding and use of Dreamweaver CS5. Create and modify a website.

Prerequisite(s): CPE 0200 and ITS 0800

Terms Offered: Fall, Spring

**ITS 1500 HTML and CSS (3)**

Use HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets) to develop websites without the aid of web page composition software.

Prerequisite(s): CPE 0200, ITS 0800 and ITS 0810

Terms Offered: Fall, Spring



### **ITS 2300 Dreamweaver and Flash (3)**

Basic use of Dreamweaver and Flash to create and modify web page content.

Prerequisite(s): CPE 0200 and ITS 0800

Instructor Permission Required.

Terms Offered: Fall

### **ITS 2310 Web Design and Publishing (3)**

Principles of web page design and publishing. Use of Content Management Systems.

Prerequisite(s): ITS 1400, ITS 1500 or ITS 2300

Instructor Permission Required.

Terms Offered: Spring

### **ITS 2500 XML (3)**

Structure and programming techniques of XML (Extensible Markup Language).

Prerequisite(s): CPE 0500 and ITS 1500

Terms Offered: Fall

## **(LPN) Practical Nursing**

### **LPN 1101 Nursing Fundamentals (9)**

Practical nurse's role and scope of practice, ethical and legal issues. Health maintenance and promotion. Biological and social sciences. Data collection techniques, nursing process and medical/surgical asepsis. Basic practical nursing skills and safe medication administration.

Prerequisite(s): ENG 1111, BIO 1105, MST 1105 and CPE 0500

Pre/Corequisite(s): PSY 1111, LPN 1201 and LPN 1301

Instructor Permission Required.

Terms Offered: Fall, Spring

### **LPN 1201 Disease Process and Diet Therapy (4)**

Basic principles of microbiology, signs and symptoms of common disease/disorders of body systems, diagnostic tests, treatment and principles of nursing care and dietary treatment.

Prerequisite(s): BIO 1105, ENG 1111 and MST 1105

Instructor Permission Required.

Terms Offered: Fall

### **LPN 1301 Pharmacology (3)**

Systems of measurement and calculation of drug dosage. Principles of pharmacology. Action, prototype drugs, therapeutic implications, side/adverse effects and associated nursing implication of major drug classes. Administration of IV antibiotics. Ohio Board of Nursing laws and rules related to LPN practice and IV therapy.

Prerequisite(s): BIO 1105, ENG 1111, CPE 0500 and MST 1105

Pre/Corequisite(s): LPN 1201

Instructor Permission Required.

Terms Offered: Fall

### **LPN 1401 Nursing Care of Adults (9)**

Application of skill competencies from LPN 1101. Intravenous (IV) therapy for the practical nurse. Care of clients with medical and surgical conditions in skilled and hospital settings. Preceptor experience and leadership/management skills. Comprehensive review for National Council Licensure Examination (NCLEX) preparation.

Prerequisite(s): LPN 1101, LPN 1201, LPN 1301 and PSY 1111

Pre/Corequisite(s): PSY 2223 and LPN 1501

Terms Offered: Fall, Spring

### **LPN 1501 Nursing Care of Women, Infants, & Children (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 and delivery, postpartum, care of the newborn with emphasis on preventing complications. Impact of childbirth and newborn on family unit and current trends in women's health. Family-centered approach to meeting needs of pediatric clients. Application of the nursing process and role of the nurse in the care of the infant/child/adolescent with common diseases, illnesses, and conditions. 60 hours of lecture, 30 hours of lab, and 15 hours of clinical experience in maternal/child and pediatric healthcare settings.

Prerequisite(s): PSY 1111, LPN 1101, LPN 1301 and LPN 1201

Pre/Corequisite(s): PSY 2223

Terms Offered: Spring, Summer

## **(LSC) Logistics and Supply Chain Management**

### **LSC 2100 Purchasing and Supply Management (3)**

Management of purchasing, materials management, supply chain management and sourcing management perspectives on the core tasks and challenges required to manage the purchasing function within the context of an integrated supply chain

Prerequisite(s): MGT 1120

Terms Offered: Fall, Spring

### **LSC 2220 Logistics and Physical Distribution (3)**

Design and management of a logistical process of coordinating the flow of goods, services and information among members of a supply chain with a focus on the area of physical distribution management, including warehouse management and layout, transportation and customer service.

Prerequisite(s): MGT 1120

Terms Offered: Fall

### **LSC 2270 Operations Management (3)**

Design and management of the models and methods used in operations management including forecasting, system design, quality, supply chain management, project management and inventory management and scheduling.

Prerequisite(s): MGT 1120 and MTH 1060

Terms Offered: Spring

# (MAS) Medical Assisting

## **MAS 1103 Medical Administrative Office I (2)**

Front office administrative duties required of the medical assistant. Telephone and other electronic communication devices, appointment scheduling, the medical record, written communication, filing systems and basic office management. Prerequisite(s): Acceptance to the Medical Assisting program Pre/Corequisite(s): BIO 1105, ENG 1111 and MST1105 Instructor Permission Required. Terms Offered: Fall, Spring

## **MAS 1104 Exam Room Procedures I (2)**

Duties expected of a clinical medical assistant. Patient education, infection control, medical and surgical asepsis, diagnostic imaging and assisting with the adult, pediatric and geriatric physical examination. Prerequisite(s): Acceptance to Medical Assisting program Pre/Corequisite(s): BIO 1105, ENG 1111 and MST1105 Instructor Permission Required. Terms Offered: Fall, Spring

## **MAS 1105 Laboratory Procedures for the Medical Office I (2)**

Diagnostic physician office laboratory procedures: Collection and processing of specimens, laboratory safety, microbiology, urinalysis, hematology, serology and blood chemistry. Prerequisite(s): Acceptance to Medical Assisting program Pre/Corequisite(s): BIO 1105, ENG 1111 and MST1105 Instructor Permission Required. Terms Offered: Fall, Spring

## **MAS 1113 Medical Administrative Office II (2)**

Financial aspects of the office, ICD-9 and CPT coding, medical insurance, reimbursement procedures and managing patient accounts. Prerequisite(s): MAS 1103 Terms Offered: Fall, Spring

## **MAS 1114 Exam Room Procedures II (2)**

Medication administration and medical office emergencies. Specialties. Prerequisite(s): MAS 1104 and CPE 0500 Pre/Corequisite(s): MAS 1116 Terms Offered: Fall, Spring

## **MAS 1115 Laboratory Procedures for the Medical Office II (2)**

Continuation of diagnostic physician office laboratory procedures: collection and processing of specimens, laboratory safety, microbiology, urinalysis, hematology, serology and blood chemistry. Prerequisite(s): MAS 1105 Terms Offered: Fall, Spring

## **MAS 1116 Pharmacology for the Medical Office (3)**

Principles of pharmacology for the medical assistant: sources of drugs, drug classifications, actions and interactions. Dosage calculations Prerequisite(s): BIO 1105, MST 1105 and CPE 0500 Terms Offered: Fall, Spring

## **MAS 1117 Medical Assisting Exam Review (2)**

Preparation for the American Association of Medical Assistants (AAMA) national certification examination. Pre/Corequisite(s): MAS 1118 and MAS 1119 Terms Offered: Summer, Fall

## **MAS 1118 Medical Assisting Directed Practice (2)**

Integration of content and competencies covered in the Medical Assistant certificate program. 200 clinical hours. Prerequisite(s): BIO 1105, ENG 1111, MAS 1113, MAS 1114, MAS 1115, MAS 1116 and MST 1105 Corequisite(s): MAS 1119 Instructor Permission Required. Terms Offered: Summer, Fall

## **MAS 1119 Clinical Perspectives Seminar (1)**

Forum for shared learning and problem solving of directed practice experiences. Resume preparation, interviewing skills and employment laws. Prerequisite(s): BIO 1105, ENG 1111, MAS 1113, MAS 1114, MAS 1115, MAS 1116 and MST 1105 Corequisite(s): MAS 1118 Instructor Permission Required. Terms Offered: Summer, Fall

# (MGT) Management

## **MGT 1060 Organizational Behavior (3)**

Theories, concepts and applications of organizational behavior as it relates to individuals, groups and organizations in today's global business environment. Conceptual frameworks, case discussions and skill-oriented activities. Personality, assessment of self, motivation, stress, job success, ethics, conflict resolution, managing change, group behavior, team problem solving and decision making, interpersonal and organizational communications, valuing diversity in a global workforce. Prerequisite(s): CPE 0200 Global Awareness. Terms Offered: Fall, Spring, Summer

## **MGT 1100 Personal Finance (3)**

A framework of personal money management concepts for non-business and business students, 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. Terms Offered: Fall, Spring

## **MGT 1105 Contemporary American Business (2)**

Current concepts of American business encompassing social and ethical responsibilities, global markets, government regulation and taxation. Including the forms of business administration, management, organized labor, and other basic business concepts. Prerequisite(s): CPE 0200 Terms Offered: Fall, Spring, Summer

### **MGT 1115 Customer Relations (2)**

Philosophy, purpose, techniques, and principles of management, customer service and relations. Communication skills. Integrated customer-related complaints. Customer relations technologies. Customer-related complaints. Problem-solving skills.

Prerequisite(s): CPE 0200

Terms Offered: Fall

### **MGT 1120 Principles of Management (3)**

This course examines the role of the manager in today's global business environment and its impact on organizations and society. Focus is on the theory and fundamental concepts of management including planning, organization, leadership, and control. Utilization of the case study method and self-assessment exercises to gain an understanding of personal strengths and weaknesses as it relates to managing effectively. Ethics and social responsibility, decision making, power and authority, delegation, leadership and teamwork, worldwide business paradigm shifts and diversity of the workforce are discussed.

Prerequisite(s): CPE 0200

Global Awareness.

Terms Offered: Fall, Spring, Summer

### **MGT 2000 Introduction to Project Management (3)**

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): CPE 0200 and ITS 0800

Terms Offered: Fall, Spring

### **MGT 2020 Quality Management (3)**

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 1060, MGT 1105, or MGT 1120

Instructor Permission Required.

Terms Offered: Fall, Spring

### **MGT 2140 Small Business Management (3)**

Small business and entrepreneurship. Decision for self-employment 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 1100 and MGT 1105 OR MGT1120

Instructor Permission Required.

Terms Offered: Spring

### **MGT 2250 Leadership in Organizations (3)**

Development of leadership skills, integrating personal philosophy, concepts and practice required to become an effective leader.

Prerequisite(s): MGT 1120 and MGT 1060

Terms Offered: Spring, Summer

### **MGT 2270 Business Finance (3)**

Theory, methods and concerns of corporate finance, elements of financial planning, capital management techniques, valuation, cost of capital, capital budgeting, ratio analysis, leverage and diversification through mergers.

Prerequisite(s): ACC 1100

Terms Offered: Spring

### **MGT 2600 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): ENG 1112 or ENG 2211

Instructor Permission Required.

Terms Offered: Fall, Spring

### **MGT 2650 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 1105 or MGT 1060 or MGT 1120

Instructor Permission Required.

Terms Offered: Spring

### **MGT 2680 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 1105 or MGT 1120

Global Awareness.

Terms Offered: Spring

### **MGT 2800 Business Strategy/Policy Seminar (Capstone) (3)**

Development of business strategy and policy and the integration of skills learned in prior management study, including strategy formulation, implementation and evaluation. Coordination of management, economics, marketing, operations management, financial accounting, legal environment and ethics, and social responsibility to achieve competitive advantage.

Prerequisite(s): MGT 1120 and MKT 2000

Terms Offered: Fall, Spring

## **(MKT) Marketing**

### **MKT 2000 Marketing Management (3)**

Management of the marketing functions in various business contexts. Marketing activities, analysis, strategies and decision making in the context of other business functions. Integration of product, price, promotion and distribution activities; research and analysis of markets, environments, competition and customers; market segmentation and selection of target markets; and emphasis on behavior and perspectives of consumers and organizational customers. Planning and decision making for products and services in profit and nonprofit, domestic and global settings.

Prerequisite(s): CPE 0200

Pre/Corequisite(s): ECO 2220 or Instructor Permission

Global Awareness.

Terms Offered: Fall, Spring

### **MKT 2100 Pricing Strategies (3)**

Managerially-focused, integrated, pricing analysis and strategy. Pricing calculation methods and tools, analysis and identification of pricing strategy effects on the organization.

Prerequisite(s): MKT 2000 and CPE 0500

Terms Offered: Fall

### **MKT 2150 Product Management (3)**

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.

Prerequisite(s): MKT 2000 and MGT 1120

Terms Offered: Spring

### **MKT 2400 Electronic Business Applications (3)**

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 and social responsibility issues.

Prerequisite(s): MGT 1105 or MGT 1120 and ITS 1100 or ITS 1105 Global Awareness.

Terms Offered: Fall

### **MKT 2450 Sales and Sales Management (3)**

Role of selling in our economy. Psychology of selling, sales process, motivation of the salesperson. Fundamentals and techniques of selling in relation to various types of goods and services.

Prerequisite(s): MKT 2000 or MGT 1120 or AGR 2700 (AGR 2700 is a pre/corequisite and is applicable only to AGR majors)

Terms Offered: Fall

### **MKT 2550 Promotion & IMC Strategies (3)**

Integrated marketing communication systems and its tools for communication with internal and external customers, promotion and integrated communication strategies and techniques.

Prerequisite(s): MKT 2000

Terms Offered: Spring

## **(MLT) Medical Laboratory Technology**

### **MLT 1120 Medical Laboratory Orientation and Phlebotomy (2)**

History, role and professional responsibilities of the medical laboratory technician. Organization of the medical laboratory. Medical terminology. Comprehensive background in the theory and principles of phlebotomy. Quality Assurance and Total Quality Management.

Prerequisite(s): Acceptance into the MLT Program

Corequisite(s): MLT 1125

Instructor Permission Required.

Terms Offered: Fall, Spring

### **MLT 1125 Medical Laboratory Orientation and Phlebotomy Laboratory (1)**

Principles of laboratory instrumentation. Use and care of laboratory instruments. Laboratory Safety. Up-to-date instruction in phlebotomy procedures. Quality assurance and total quality management for laboratory practice.

Prerequisite(s): Acceptance into the MLT Program

Corequisite(s): MLT 1120

Instructor Permission Required.

Terms Offered: Fall, Spring

### **MLT 1130 Basic and Clinical Chemistry (3)**

Basic fundamentals of inorganic chemistry: matter, measurement, atoms, molecules, moles, atomic structure, as well as organic chemistry: hydrocarbons (saturated and unsaturated), alcohols, aldehydes, ketones, and carbohydrates. 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): CPE 0500, CPE 0400, and CPE 0200

Acceptance into MLT Program

Corequisite(s): MLT 1135

Instructor Permission Required.

Terms Offered: Fall, Spring

### **MLT 1135 Basic and Clinical Chemistry Lab (2)**

Qualitative chemical analysis of body fluids, carbohydrates, lipids, proteins, electrolytes, endogenous toxic substances, blood gases, pH, enzymes, vitamins, hormones and exogenous toxic substances.

Prerequisite(s): CPE 0200, CPE 0400, and CPE 0500

Acceptance to MLT program

Corequisite(s): MLT 1130

Instructor Permission Required.

Terms Offered: Fall, Spring

### **MLT 1140 Medical Microbiology I (2)**

Identification of bacteria by microscope, media, inoculation, biochemical activities and sensitivity testing. Basic disease processes.

Prerequisite(s): MLT 1120, MLT 1125, MLT 1130 and MLT 1135

Corequisite(s): MLT 1145

Instructor Permission Required.

Terms Offered: Fall, Spring

### **MLT 1145 Medical Microbiology I Lab (2)**

Basic microbiology concepts. Identification of bacteria by microscope, media, inoculation, biochemical activities and sensitivity testing.

Prerequisite(s): MLT 1120, MLT 1125, MLT 1130 and MLT 1135

Corequisite(s): MLT 1140

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 1150 Hematology I (2)**

The origin, formation and purpose of the formed elements of the blood, differential morphology and staining techniques. Quality control.

Prerequisite(s): MLT 1120, MLT 1125, MLT 1130 and MLT 1135  
Corequisite(s): MLT 1155

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 1155 Hematology I Laboratory (2)**

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 1120, MLT 1125, MLT 1130 and MLT 1135  
Corequisite(s): MLT 1150

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 1160 Urinalysis & Body Fluids (2)**

Urinalysis principles including physical and chemical characteristics and microscopic analysis of urinary sediment. Body fluids: synovial, cerebrospinal, serous, amniotic and seminal fluids.

Prerequisite(s): MLT 1120, MLT 1125, MLT 1130 and MLT 1135  
Corequisite(s): MLT 1165

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 1165 Urinalysis & Body Fluids Laboratory (1)**

Basic urinalysis techniques including physical and chemical characteristics and microscopic analysis of urinary sediment. Basic technique for synovial, cerebrospinal, serous, amniotic and seminal fluids.

Prerequisite(s): MLT 1120, MLT 1125, MLT 1130 and MLT 1135  
Corequisite(s): MLT 1160

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2120 Immunology & Blood Banking (4)**

Principles and theories of the production and characteristics of antigen-antibody reactions, formation and reactions of antigens and antibodies. Responsibility of blood bank procedures, blood collection and processing. Genotypes and phenotypes of ABO and Rh blood group systems.

Prerequisite(s): MLT 1150, MLT 1155, ENG 1111, BIO 1105 and ITS 1100

Corequisite(s): MLT 2125

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2125 Immunology & Blood Banking Lab (4)**

Techniques of agglutination, precipitation, flocculation, immunodiffusion, immunofluorescence, ELISA (Enzyme-linked immunosorbent assay) and EIA (Enzyme immunoassay). Typing techniques, principles, procedures; crossmatch and panel screening; atypical antibody identification and quality control.

Prerequisite(s): MLT 1150, MLT 1155, ENG 1111, BIO 1105 and ITS 1100

Corequisite(s): MLT 2120

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2130 Medical Microbiology II (2)**

Identification of microbial agents associated with disease in man including bacteria, viruses and parasites. Specimen collection. Quality control.

Prerequisite(s): MLT 1140, MLT 1145, ENG 1111, BIO 1105 and ITS 1100

Corequisite(s): MLT 2135

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2135 Medical Microbiology II Lab (2)**

Techniques to isolate, identify, and evaluate the presence of clinically significant microorganisms.

Prerequisite(s): MLT 1140, MLT 1145, BIO 1105, ENG 1111 and ITS 1100

Corequisite(s): MLT 2130

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2140 Hematology II (2)**

Disorders of blood cells and platelets including biochemistry of the red blood cell, anemias, leukemias. Principles and procedures of coagulation.

Prerequisite(s): MLT 1150, MLT 1155, ENG 1111, BIO 1105 and ITS 1100

Corequisite(s): MLT 2145

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2145 Hematology II Lab (2)**

Manual and automated instrumentation techniques used within a hematology department. Differential counting of abnormal cells. Coagulation.

Prerequisite(s): MLT 1150, MLT 1155, ENG 1111, BIO 1105 and ITS 1100

Corequisite(s): MLT 2140

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2150 Seminar (1)**

Weekly review of problems and progress in Directed Practice; current topics; quality control.

Prerequisite(s): All prior MLT coursework with a C or better

Corequisite(s): MLT 2155

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2155 Directed Practice (5)**

Clinical site assignment; departmental rotation; application of principles and techniques under supervision of clinical staff and college faculty.

Prerequisite(s): All prior MLT coursework with a grade of C or better

Corequisite(s): MLT 2150

Instructor Permission Required.

Terms Offered: Fall, Spring

**MLT 2160 MLT Review and Update (2)**

Review and update of urinalysis, hematology, clinical chemistry, medical microbiology, immunology, immunohematology.

Prerequisite(s): All prior MLT coursework.

Instructor Permission Required.

Terms Offered: Fall, Spring

# (MST) Multi-Skilled Health Care

## **MST 1101 Introduction to Health Care (3)**

History of health care delivery systems, current systems, services, trends and challenges, health care careers and ethical and legal responsibilities. Foundational concepts of patient care including human growth and development, basic human needs, patient rights and responsibilities, provider and patient safety, communication skills and computer literacy. Professionalism and securing and maintaining employment. Prerequisite(s): CPE 0100  
Pre/Corequisite(s): CPE 0200 and CPE 0300  
Terms Offered: Fall

## **MST 1105 Medical Terminology (2)**

Language of medicine. Medical prefixes, suffixes, root words, singular/plural forms constructed to form medical terminology. Definition, spelling and pronunciation of terms related to organization of the body, body systems, pathology, diagnostic and treatment procedures, pharmacology and medical specialists. Standard medical abbreviations. Prerequisite(s): CPE 0100  
Pre/Corequisite(s): CPE 0200 and CPE 0300  
Terms Offered: Fall, Spring

## **MST 1140 Human Disease (3)**

Basic concepts of pathophysiology. Pathophysiological processes, clinical manifestations and diagnostic and therapeutic management of common disorders and diseases of major body systems. Prerequisite(s): MST 1105 and BIO 1105 or BIO 2122  
Terms Offered: Spring

## **MST 1160 Phlebotomy (2)**

Comprehensive background in the theory and principles of phlebotomy. Quality Assurance and Total Quality Management. Prerequisite(s): CPE 0200  
Corequisite(s): MST 1161  
Terms Offered: Fall, Spring

## **MST 1161 Phlebotomy Lab (2)**

Application of principles of phlebotomy. Performance of phlebotomy procedures. Prerequisite(s): CPE 0200  
Corequisite(s): MST 1160  
Terms Offered: Fall, Spring

## **MST 1171 Introduction to Electrocardiography (2)**

Principles of electrocardiography (ECG) including basic cardiac anatomy and physiology, basic ECG interpretation and identification of common abnormal tracings. Recording of rhythm strips and multi-lead ECGs. Equipment operation and troubleshooting. Prerequisite(s): BIO 1105 or BIO 2121 and MST 1105  
Terms Offered: Fall, Spring

## **MST 1181 Nurse Aide Training (4)**

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. BCI background check required. Prerequisite(s): CPE 0100  
Corequisite(s): Criminal background check  
Terms Offered: Fall, Spring

## **MST 1182 Patient Care Technician (3)**

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 and sub-acute health care facilities. Emphasis on safety, observation and reporting. Prerequisite(s): MST 1181 (within past 2 years or current STNA credential)  
Pre/Corequisite(s): EMS 1171 (within past 2 years or current CPR or BLS certification)  
Terms Offered: Spring

# (MTH) Math

## **MTH 1050 Mathematics and Today's World (3)**

An application of mathematics to modeling real world problems from the behavioral, computational, managerial and social sciences. Includes such topics as probability, descriptive and inferential statistics, financial management, voting systems and codes and data storage. Prerequisite(s): CPE 0700  
Terms Offered: Spring

## **MTH 1060 Business Mathematics (3)**

Application of fundamental problem solving concepts, techniques, and skills relating to the quantitative aspects of business. Topics covered include bank reconciliations, percentages, simple and compound interest, depreciation, markups and markdowns, trade and cash discounts, sales and property taxes, promissory notes, insurance, loan amortization, mortgages and business statistics. Prerequisite(s): CPE 0500  
Instructor Permission Required.  
Terms Offered: Fall, Spring

## **MTH 1115 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 0200 and CPE 0600  
Terms Offered: Fall, Spring

## **MTH 1200 Technical Math for Agriculture (3)**

Development and application of practical mathematical 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 0100 and CPE 0500  
Terms Offered: Spring

### **MTH 1280 College Algebra (3)**

Algebraic expressions, coordinates and graphs, transformation and composition of functions, inverse functions, polynomial and rational functions, complex numbers, synthetic and long division, remainder and factor theorem, exponential and logarithmic functions, systems of equations.

Prerequisite(s): CPE 0100, CPE 0700, and/or equivalent Compass score

Terms Offered: Fall, Spring

### **MTH 1340 Pre Calculus (4)**

Systems of equations and inequalities, analytic geometry, matrices and determinants, Gauss-Jordan, Cramer's Rule, sequences and series, permutations, combinations, probability, trigonometric functions, solving triangles, laws of sines and cosines, unit circles, vectors, graphs of trigonometric functions, polar coordinates, trigonometric identities and trigonometric equations.

Prerequisite(s): MTH 1280 and/or equivalent Compass score

Terms Offered: Spring

### **MTH 2100 Calculus for the Management, Life and Social Sciences (4)**

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 1280

Terms Offered: Spring

### **MTH 2200 Calculus I (5)**

Limits, continuity, derivatives, rules of differentiation, differentiation of the trigonometric, inverse trigonometric, logarithmic and exponential functions, related rates, linear approximations and differentials, extrema, curve sketching, Mean Value Theorem, optimization problems, L' Hopital's rule, Newton's Method, Fundamental Theorem of Calculus, definite and indefinite integrals, integration by substitution.

Prerequisite(s): MTH 1340

Terms Offered: Fall, Spring

### **MTH 2220 Calculus II (5)**

Riemann sums, integrals, techniques of integration, applications of integration, area, volumes of revolution, integrating various functions (polynomial, trigonometric, exponential and logarithmic), polar coordinates. 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 2200

Terms Offered: Spring

### **MTH 2240 Multivariable Calculus (4)**

Three-dimensional coordinate systems, polar coordinates, cylindrical and spherical coordinates, curves in space, arc length and curvature, limits and continuity, partial differentiation, local extrema, exact differentials, chain rule, directional derivative and gradient, Lagrange multipliers, derivative tests, velocity and acceleration vectors, vector fields, parametric equations, partial derivatives, differentials, multiple integrals, line and surface integrals, path independence, Green's, Stoke's and The Divergence Theorems, volume and other applications.

Prerequisite(s): MTH 2220

Terms Offered: Fall

### **MTH 2330 Differential Equations (3)**

Ordinary differential equations of first order, higher order linear equations, uniqueness and existence of solutions, Laplace transform methods, and series methods. (Fourier series, and Fourier Convergence Theorem, if time permits.)

Pre/Corequisite(s): MTH 2530

Terms Offered: Fall

### **MTH 2530 Matrix Algebra (4)**

Linear systems, matrices, matrix algebra, inverse matrices, determinants, vectors, vector operations, orthogonal projections, vector spaces, subspaces, linear independence, row space, column space, null space, rank, nullity, span, dimension of a vector space, linear transformations, diagonalization, eigenvalues, eigenvectors, inner product, Gram-Schmidt process, least square and orthogonality.

Prerequisite(s): MTH 2220

Terms Offered: Spring

## **(MUS) Music**

### **MUS 1001 Music Theory I (3)**

Musical notation, scales, tonality, key, intervals and transposition, chords, cadences, non-harmonic tones, melodic organization, texture reduction, voice-leading practices for two voices, voice-leading practices for four voices.

Terms Offered: Fall

### **MUS 1002 Music Theory II (3)**

Harmonic progressions, dominant seventh chords and leading-tone chords, non-dominant seventh chords, secondary dominant and leading-tone chords, modulation, binary and ternary forms.

Prerequisite(s): MUS 1001

Terms Offered: Spring

### **MUS 1011 Sight Singing & Dictation I (2)**

Aural skills including; interval recognition, key/modality recognition, chord recognition, meter recognition, rhythmic notation and melodic notation. Identifying and singing intervals within the octave, triad recognition, tonic, sub-dominant and dominant chord recognition, singing and notating melodies in simple and compound meters.

Corequisite(s): MUS 1001

Terms Offered: Fall, Spring

### **MUS 1012 Sight Singing & Dictation II (2)**

Rhythmic dictation involving rests, subdivisions and borrowed divisions in simple and compound meters. Melodic singing and dictation with an emphasis on compound intervals, the tritone and sevenths. Harmonic dictation of the dominant seventh chord, the supertonic and submediant chords.

Prerequisite(s): MUS 1011

Corequisite(s): MUS 1002

Terms Offered: Fall, Spring

### **MUS 1130 Music Appreciation (3)**

A survey of Western and non-Western (secular and sacred) music from approximately 450 AD to the present; a chronological presentation of material supplemented with basic elements of music, listening examples, and live performances.

Prerequisite(s): CPE 0100

Global Awareness.

Terms Offered: Fall, Spring

### **MUS 1150 Choir (1)**

A choral ensemble of men and women, singing a variety of stylistic periods, musical theatre and popular music. Public concert culminates each semester.

Prerequisite(s): The ability to blend and match pitch and willingness if needed to develop the basic fundamentals of choral singing

Terms Offered: Fall, Spring

### **MUS 1151 Applied Guitar 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 per week.

Terms Offered: Fall, Spring

### **MUS 1152 Applied Guitar II (2)**

Private instrument instruction focusing on the fundamentals of instrument performance skills. Sixty minutes of private instruction per week. A minimum of 13 hours of practice time required.

Terms Offered: Fall, Spring

### **MUS 1160 Applied Voice (1)**

Private voice instruction focusing on the fundamental of voice production, song literature interpretation and performance skill. Thirty minutes of private instruction per week.

Prerequisite(s): none

Terms Offered: Fall, Winter, Spring, Summer

### **MUS 1170 Applied Piano (1)**

Individual piano instruction focusing on the fundamentals of piano performance skills.

Terms Offered: Fall, Spring

### **MUS 2001 Music Theory III (3)**

Analysis of late Renaissance and two-voice Baroque polyphony including fugue. Beginning study of chromatic harmony: borrowed chords, Neapolitan and augmented sixth chords, analysis of the primary Classical period forms: sonata form, theme and variation, rondo and sonata-rondo form.

Prerequisite(s): MUS 1002

Terms Offered: Fall

### **MUS 2002 Music Theory IV (3)**

Continuation of the study of chromatic harmony, extended harmony, harmonic structures of Romanticism, Post-Romanticism, Impressionism, and 20th Century music, compositional styles and techniques of Romanticism, Post-Romanticism, Impressionism and 20th Century music.

Prerequisite(s): MUS 2001

Terms Offered: Spring

## **(NTK) Networking**

### **NTK 1110 PC Hardware Essentials (3)**

Installing, configuring, upgrading and troubleshooting microcomputer hardware. Desktop and server systems, basic networking and printers. First of two-course sequence covering A+ certification objectives.

Prerequisite(s): CPE 0200 and ITS 0800

Terms Offered: Fall

### **NTK 1120 PC Operating Systems Essentials (3)**

Intensive introduction to multitasking operating systems and network operating systems. Operating system upgrades/configuration, installation procedures, security issues, backup procedures, remote access, command line and graphical user interfaces. Second of a two-course sequence covering the A+ certification objectives.

Prerequisite(s): NTK 1110

Terms Offered: Fall

### **NTK 1211 Convergence Technology I (3)**

Convergence technology terms and concepts. Networking fundamentals, TCP/IP networking basics and merging of voice and data traffic. Voice over Internet Protocol (VoIP) and systems management. First course, in a two-course sequence covering industry certification topics.

Prerequisite(s): NTK 176, instructor permission, or NTK 1120  
Instructor Permission Required.

Terms Offered: Winter, Summer

### **NTK 1212 Convergence Technology II (3)**

Hands-on experience with convergence equipment and software. Planning, installing, configuring, managing, optimizing and troubleshooting voice, video and data infrastructures. Configuring wireless technologies and security. Second in a two-course sequence covering industry certification topics.

Prerequisite(s): NTK 1211

Terms Offered: Winter, Summer

### **NTK 2100 Cisco - Network Fundamentals (3)**

Overview of computer networking concepts, theories, and structures. Discussion of the OSI network model, network addressing, data encapsulation and TCP/IP network-layer protocols. Part of a set of courses covering material for the CCNA and Network+ certification exams.

Prerequisite(s): CPE 0600 and NTK 1120

Instructor Permission Required.

Terms Offered: Fall



### **NTK 2110 Cisco - Routing Fundamentals (3)**

Overview of network router concepts and theory. Discussion of router elements, Transmission Control Protocol/Internet Protocol (TCP/IP) transport-layer protocols and flow control. Hands-on experience with router setup, configuration and monitoring. Part of a set of courses covering material for the Cisco Certified Network Associate (CCNA) and Network+ certification exams.

Prerequisite(s): NTK 2100

Terms Offered: Fall

### **NTK 2120 Cisco - Switching/Wireless (3)**

Overview of network switching and wireless concepts and theory. Discussion of switching and wireless technologies. Hands-on experience with switch and wireless setup, configuration and monitoring. Part of a set of courses covering material for the Cisco Certified Network Associate (CCNA) and Network+ certification exams.

Prerequisite(s): NTK 2110

Instructor Permission Required.

Terms Offered: Spring

### **NTK 2130 Cisco - Wide Area Networking (3)**

Advanced network routing and switching concepts and theory. Discussion of Wide Area Networks (WANs) and supporting protocols and structures. Hands-on experience with advanced router setup and configuration. Part of a set of courses covering material for the Cisco Certified Network Associate (CCNA) certification.

Prerequisite(s): NTK 2120

Terms Offered: Spring

### **NTK 2210 Linux Desktop Administration (3)**

Discussion of the Linux file system. Maintenance tasks, customizing the GUI interface, Linux commands. File access permissions, printing commands and utilities. Managing user accounts.

Prerequisite(s): NTK 178 or CSD 104 or CSD 105 and NTK 1120

Terms Offered: Fall

### **NTK 2212 Linux Server Administration (3)**

Hands-on experience with Linux server operating systems. Planning, installing, configuring, managing, optimizing and troubleshooting.

Prerequisite(s): NTK 2210

Terms Offered: Winter, Summer

### **NTK 2220 Microsoft Desktop Administration (3)**

Hands-on experience with the Microsoft Client operating system. Installing, configuring, optimizing and troubleshooting. Course covers Microsoft certification objectives.

Prerequisite(s): CPE 101, NTK 178, and NTK 1120

Instructor Permission Required.

Terms Offered: Fall

### **NTK 2222 Administering Microsoft Server (3)**

Hands-on experience with server operating system. Planning, installing, configuring, managing, optimizing and troubleshooting. Course covers Microsoft certification objectives.

Prerequisite(s): NTK 270 or NTK 2220

Terms Offered: Fall

### **NTK 2710 Introduction to High Performance/Clustered Computing (3)**

Introduction to high performance/clustered computing (HP/CC). High performance/clustered computing jobs and career opportunities. High performance/clustered computing terms and concepts. High performance/clustered computing vendors, and technologies. Research on clustered computer systems.

Prerequisite(s): NTK 1120

Terms Offered: Winter, Summer

### **NTK 2712 High Performance/Clustered Computing Design (3)**

Methods and processes used to create high-performance/clustered computer systems (HPC). Evaluating clustered computing hardware and software options. Installing and configuring a high-performance/clustered system.

Prerequisite(s): NTK 2710

Terms Offered: Spring

### **NTK 2890 Computer Networking Capstone (3)**

Overview of ethics in the information technology field. Assessment of skills and competencies of Network Administration through project-based activities. Requires an oral and written presentation. Should be taken in final term prior to graduation.

Prerequisite(s): NTK 2220, NTK 2110, CSE 1120, MGT 2000, and ENG 1112

Terms Offered: Spring

## **(NUR) Nursing**

### **NUR 1120 Pharmacology and Drug Calculations (3)**

Basic pharmacologic principles, drug administration, consumer safety and drug regulation in the U.S. Mechanism of action, therapeutic uses and important adverse effects of major drug classifications and prototype drugs. Nurse's role and responsibilities in drug therapy. Systems of measurements and calculation of drug dosages.

Prerequisite(s): BIO 2121 and CPE 0600 and/or equivalent  
Compass score

Pre/Corequisite(s): BIO 2122 (or by instructor permission)

Terms Offered: Fall, Spring

### **NUR 1170 Basic Nursing Concepts (7)**

Introduction to healthcare system and providers. Roles of the nurse, standards of client care, nursing process, functional health patterns, health promotion and maintenance, beginning clinical decision making, and perioperative nursing. All nursing skills.

Prerequisite(s): BIO 2121 and MST 1105

Corequisite(s): BIO 2122 and NUR 1120

Instructor Permission Required.

Terms Offered: Fall, Spring

### **NUR 1172 Adult Nursing I (7)**

Nursing care of adults with common alterations in mobility, nutrition and elimination; diabetes; and common immunologic, vascular and respiratory disorders.

Prerequisite(s): NUR 1170, NUR 1120, BIO 2122 and ENG 1111

Terms Offered: Fall, Spring

**NUR 1174 Behavioral Health Nursing (4)**

Examine concepts integral to psychiatric/mental health and gerontological nursing. Emphasis on the nurse's role and treatment modalities for individuals experiencing commonly occurring psychiatric, emotional and developmental disorders, substance abuse, family violence, difficult life transitions and challenging behaviors across the lifespan. Application of the nursing process in a variety of community settings with focus on the nurse/client alliance as an agent for change.

Prerequisite(s): BIO 2122, ENG 1111, and PSY 1111 and NUR 1120 and NUR 1170 (or instructor permission)

Terms Offered: Spring, Summer

**NUR 1175 LPN to RN Transition (3)**

Ohio Nursing Articulation Model Transition course. Explore integrative concepts in nursing. Refine and update previous learning. Nursing process. Client assessment and communication.

Prerequisite(s): BIO 2122 and ENG 1111

Corequisite(s): NUR 1176

Instructor Permission Required.

Terms Offered: Fall

**NUR 1176 Adult Nursing for LPNs (2)**

Introduction to Clark State's Registered Nursing Program, covers functional health patterns and review of nursing care for adults with specified alterations in health.

Prerequisite(s): BIO 2122 and ENG 1111

Corequisite(s): NUR 1175

Instructor Permission Required.

Terms Offered: Fall

**NUR 1177 Paramedic to RN Transition (2)**

Introduction of health care system, role of nurse, standards of care, nursing process, functional health patterns, health promotion and maintenance and peri-operative nursing. All nursing skills taught. Offered in eight-week session.

Prerequisite(s): BIO 2121

Pre/Corequisite(s): BIO 2122 and NUR 1120

Instructor Permission Required.

Terms Offered: Fall

**NUR 1178 Adult Nursing for Paramedics (4)**

Nursing care of adults with common alterations in mobility, nutrition, elimination, eye/ear, diabetes, immunologic, cardiovascular, and respiratory disorders. Builds on the paramedic's emergent knowledge. Includes clinical on adult medical-surgical acute care units. Offered in eight-week session.

Prerequisite(s): NUR 1120 and NUR 1177

Instructor Permission Required.

Terms Offered: Fall

**NUR 1190 Associate Degree Equivalency for LPN Outcomes (13)**

Practical Nurse technical learning outcomes. Statewide course CTNUR001. LPN's entering Clark State's Transition to RN Nursing program are awarded articulated credit for this course after successful completion of NUR 1175 and NUR 1176.

Prerequisite(s): NUR 1175 and NUR 1176 (with grade of C or better)

Instructor Permission Required.

Terms Offered: Fall

**NUR 2272 Children-Family Nursing (3)**

Health promotion and health maintenance during childhood. Family-centered nursing care of common acute and chronic childhood health alterations. Incorporates service learning project.

Prerequisite(s): BIO 1131, ENG 1112, and NUR 1120 and NUR 1172, NUR 1175 or NUR 1178

Pre/Corequisite(s): PSY 2223

Terms Offered: Fall, Spring

**NUR 2274 Maternal-Newborn Nursing (3)**

Application of the nursing process to female reproductive and newborn health. Emphasis on physiological changes of pregnancy, prevention of complications, conditions of the high-risk newborn, and common gynecologic disorders. Family-centered approach. Clinical in hospital and community settings.

Prerequisite(s): ENG 1112 and PSY 2223 and NUR 1172, NUR 1175 or NUR 1178

Terms Offered: Fall, Spring

**NUR 2276 Adult Nursing II (5)**

Nursing care of adults with hematologic, oncologic, urologic, neurologic, and cardiac alterations. Intravenous therapies.

Prerequisite(s): ENG 1112 and BIO 2122 and NUR 1172, NUR 1175 or NUR 1178

Pre/Corequisite(s): BIO 1131 and PSY 2223

Terms Offered: Fall, Spring

**NUR 2278 Adult Nursing III (7)**

Nursing care of adults with emphasis placed on growth and health promotion of young and middle adults and community and public health nursing, endocrine disorders, acute cardiovascular, respiratory, neurologic, multi-symptom disorders, disaster and emergency care concepts, management concepts, health care delivery systems and ethical, legal and professional practice issues.

Prerequisite(s): NUR 2276, NUR 1174, and PSY 2223

Pre/Corequisite(s): COM 1170, SOC 1110, NUR 2272 and NUR 2274

Terms Offered: Fall, Spring

**NUR 2279 Nursing Directed Practice/Seminar (2)**

Capstone course provides intensive clinical experience in selected healthcare setting. Manage nursing care of groups of clients; progress toward transition from student to professional nurse. Weekly reflection of nursing practice.

Prerequisite(s): COM 1170, NUR 1174, NUR 2272, NUR 2274 and NUR 2276

Pre/Corequisite(s): NUR 2278

Terms Offered: Fall, Spring, Summer

**NUR 2280 Nursing Review (1)**

Extensive review of nursing knowledge and behaviors. Application of critical thinking skills to solve a variety of nursing care problems. Emphasis placed on current NCLEX-RN test plan.

Pre/Corequisite(s): NUR 2278 and NUR 2279

Terms Offered: Fall, Spring, Summer

### **NUR 290B Bridge - Pediatric Nursing (2)**

Pediatric bridge course. Health promotion and health maintenance during childhood. Family-centered nursing care of common acute and chronic childhood health alterations.

Prerequisite(s): NUR 171

Pre/Corequisite(s): NUR 172

Instructor permission required.

## **(OAD) Office Administration**

### **OAD 1101 Document Production I (3)**

Production of common business correspondence, simple reports, and basic tables, using Microsoft Word 2007 software; emphasis on accuracy. Minimum typing speed of 35 words per minute expected.

Prerequisite(s): CPE 0200, ITS 0800, and ITS 0810 with a grade of A  
Terms Offered: Fall, Spring

### **OAD 1102 Document Production II (3)**

Production of complex business correspondence, reports and tables, using Microsoft Word 2007 software. Introduction to desktop publishing; emphasis on speed and accuracy. Minimum typing speed of 40 words per minute expected.

Prerequisite(s): OAD 1101

Terms Offered: Fall, Spring

### **OAD 1105 Business English (4)**

A basic business English course covering parts of speech; sentence elements, varieties, patterns, types and faults; nouns; possessive nouns; personal pronouns; pronouns and antecedents; verb kinds, voices and moods; verb tenses and parts; subject-verb agreement; adjective and adverb modifiers; prepositions; conjunctions; commas; semicolons and colons; capitalization; number style; and proofreading.

Prerequisite(s): CPE 0200 and/or equivalent Compass score

Terms Offered: Fall, Spring

### **OAD 1205 Office Procedures (3)**

Basic office administrative skills and concepts, including the work environment; ethics; stress, anger and time management; workplace technologies; information processing; telecommunications; written communication; records management; presentations; the workplace team; customer service; workplace mail and copiers; travel arrangements; meetings and conferences; and leadership.

Prerequisite(s): CPE 0200 and/or equivalent Compass score

Terms Offered: Fall

### **OAD 2105 Medical Machine Transcription (3)**

Use of transcription equipment, transcription and word processing software, and audio files to produce inpatient medical documents covering eight systems of the human body and outpatient medical documents covering selected specialty areas. Evaluation of transcription for application of correct report format; spelling of both English and medical terms; and specialized rules of grammar, including capitalization, number style, punctuation, abbreviation usage, symbol usage and metric measurement style. Assessment of medical terminology knowledge, Health Insurance Portability and Accountability Act (HIPAA) guidelines, certification options, medical report contents and purposes and general medical transcriptionists' responsibilities.

Prerequisite(s): OAD 1101, BIO 1105 and MST 1105

Terms Offered: Fall

### **OAD 2205 Medical Office Management (3)**

Development of techniques for acquiring advanced skills in the use of medical office management software. Encompasses the entire reimbursement process and applies it to practice-management software starting with appointment scheduling and moving through patient registration, procedure posting, medical billing with paper claims and electronically, payment posting, secondary insurance billing, patient billing, patient collections and insurance tracking and follow-up.

Prerequisite(s): MST 1105

Terms Offered: Fall

### **OAD 2215 Office Simulation (3)**

A comprehensive course making use of all knowledge and skills necessary to perform the duties of a professional office administrator. A project-centered approach requiring the student to complete without supervision a wide variety of tasks demanding judgment; initiative; decision making; problem solving; organizing, prioritizing and planning; meeting deadlines; creating complicated documents using word processing, spreadsheets and databases; and other related administrative duties.

Prerequisite(s): OAD 1102, ITS 1205, ITS 1215 and ITS 1220

Terms Offered: Fall

### **OAD 2301 CPT/ICD-10-PCS Coding (3)**

Introduction to CPT codes for insurance billing and reimbursement. Use of coding manuals plus the most recent coding classifications and guidelines. Coding steps explained. Procedural classification system.

Prerequisite(s): BIO 1105 and MST 1105

Terms Offered: Fall

### **OAD 2302 ICD-9-CM/ICD-10- CM Coding (3)**

Introduction to ICD-9-CM/ICD-10 codes for insurance billing and reimbursement. Use of coding manuals and most recent code updates and guidelines. Coding steps. Diagnostic classification system.

Prerequisite(s): BIO 1105 and MST 1105

Terms Offered: Fall

### **OAD 2311 Medical Coding Trends and Issues (3)**

Policies, forms, technology and processes associated with medical billing protocol. Medicare information. Reimbursement. Healthcare management policies. Pharmacology facts, rules and guiding principles.

Pre/Corequisite(s): OAD 2301 and OAD 2302

Instructor Permission Required.

Terms Offered: Spring

### **OAD 2312 Advanced Medical Coding (3)**

Coding experience using ICD-9-CM/ICD-10-CM and CPT/ICD-10-PCS numeric representation. Specialized areas of coding. Certifications related to specialty areas.

Pre/Corequisite(s): OAD 2301 and OAD 2302

Terms Offered: Spring

### **OAD 2703 Co-op Education/Internship (3)**

Relating academic studies to the workplace through a supervised work placement that provides hands-on experience in a professional office or medical office. Applying principles and theories learned in the classroom, establishing learning outcomes and preparing related reports. Attending weekly seminars that allow opportunity for discussion of work-related experiences and relevant topics.

Prerequisite(s): EBE 1000, OAD 2105, OAD 2205 and OAD 2215 (EBE 1000 is required of all students; OAD 2105 and OAD 2205 are required of MOA students only; OAD 2215 is required of POA students only; instructor-approved co-op placement is required of all students.)

Terms Offered: Spring

## **(PGR) Personal Growth**

### **PGR 1100 Intro to College Success (2)**

This course will assist students in successfully navigating the Clark State college environment. Topics covered include: campus resources, campus technology, academic planning and time management. This course is open to all Clark State students but is strongly recommended for first-quarter students.

Terms Offered: Fall, Winter, Spring, Summer

### **PGR 1200 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.

Terms Offered: Fall, Winter, Spring, Summer

### **PGR 1210 Stress Management (1)**

Experiential approach to stress management focusing on cognitive, affective and physical techniques. Includes assessment of stressors, physiology of stress, sources of stress, consequences of stress, stress in society, stress in the workplace and the mind/body relationship.

Terms Offered: Fall, Spring

### **PGR 1220 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.

Terms Offered: Fall, Winter, Spring, Summer

### **PGR 1230 Campus Leadership (1)**

Practical approach to student leadership situations to increase technical skills involved in campus organizations. Graded S/U.

Terms Offered: Fall

### **PGR 1500 Personal Growth (2)**

Analyzing the effects of personal choices from birth to death and the implications throughout the stages of development. Personal choices as they relate to wellness, intimacy and relationships and gender roles.

Terms Offered: Fall, Spring

### **PGR 1550 Personal Growth, Part II (2)**

Identifying feelings; dealing with anger, worry, lack of self control and other emotions that interfere with learning; being socially responsible.

Instructor Permission Required.

Terms Offered: Fall, Winter, Spring, Summer

### **PGR 2100 Exploring Our Sexualities (3)**

Analysis of the impact of social and cultural values and norms on human sexuality.

Terms Offered: Spring

### **PGR 2200 Business Etiquette (1)**

Overview of the importance of Business Etiquette as it relates to Career Success. Students will learn how to establish themselves in a new job, how to dress for success, how to act at important business dinners and meetings, and how to communicate properly in person, in writing and electronically. Graded S/U.

Terms Offered: Spring

## **(PHL) Philosophy**

### **PHL 2000 Critical Thinking (3)**

Introduction to basic reasoning skills: distinguish knowledge from belief and truth; evaluate relevant information; identify assumptions; detect biased and fallacious reasoning; identify, analyze, and evaluate basic inductive and deductive arguments.

Prerequisite(s): Grade of B or better in CPE 0300 or a grade of C or better in CPE 0400, or appropriate Compass score

Pre/Corequisite(s): ENG 1111

Terms Offered: Fall, Spring

### **PHL 2050 Deductive Logic (3)**

Formal methods for determining the validity of deductive arguments; construction of truth tables, sentential proofs, and categorical syllogisms.

Prerequisite(s): Grade of B or better in CPE 0300 or a grade of C or better in CPE 0400, or appropriate Compass score.

Pre/Corequisite(s): ENG 1111

Terms Offered: Spring

### **PHL 2100 Ethics (3)**

Philosophical analysis and critique of predominant ethical perspectives from Western philosophy, political theory, and religion as well as non-Western cultural and religious traditions. Application of these perspectives to contemporary moral problems such as abortion, drug use, same-sex marriage, the death penalty, racism, war and terrorism, animal rights and the moral status of the natural environment.

Prerequisite(s): Grade of B or better in CPE 0300 or a grade of C or better in CPE 0400, or appropriate Compass score

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring

### **PHL 2200 Business Ethics (3)**

Analysis and application of teleological and deontological ethical theories to moral problems facing the world of business such as drug testing, the environment and corporate responsibility.

Prerequisite(s): ENG 1111

Pre/Corequisite(s): ENG 1112

Terms Offered: TBA

### **PHL 2300 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): Grade of B or better in CPE 0300 or a grade of C or better in CPE 0400, or appropriate Compass score

Pre/Corequisite(s): ENG 1111

Terms Offered: Spring

### **PHL 2400 Philosophy of World Religions (3)**

Philosophical analysis of the basic salvational beliefs and practices of Judaism, Christianity, Islam, Hinduism and Buddhism, including: absolutist vs. enculturated conceptual interpretations of ultimate sacred reality; the impact of current scientific theories on arguments for the existence of God and scriptural interpretation; psychological and sociological interpretations of religion; religious vs. scientific explanations of the self, mystical visions and near-death experiences; and scientific vs. religious arguments on the possibility of resurrection and reincarnation.

Prerequisite(s): Grade of B or better in CPE 0300 or a grade of C or better in CPE 0400, or appropriate Compass score

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring

## **(PHO) Photography**

### **PHO 1100 Photography I: Fundamentals (3)**

Become familiar with the concepts, methods, and procedures involved in creating both film-based and digital photographic images. Properly focus, expose and frame an image. Individual photographic elements and combining elements to create a specific look and feel to an image.

Prerequisite(s): CPE 0100

Corequisite(s): PHO 1102

Instructor Permission Required.

Terms Offered: Fall

### **PHO 1102 Image Workflow/Basic Editing (2)**

Establishing an effective and efficient Imaging Workflow procedure using multiple computer software programs. Upload, convert, process, manipulate, output and archive photographic image files.

Prerequisite(s): CPE 0100

Corequisite(s): PHO 1100

Terms Offered: Fall

### **PHO 1103 Camera Skills: The Digital Camera (2)**

Features, advantages, and disadvantages of the digital camera. Meter usage and exposure control, lens selection and file types. Similarities and differences between the digital SLR cameras, film cameras and hybrid.

Prerequisite(s): CPE 0100

Terms Offered: Fall

### **PHO 1124 Photography II: Applied Photography (3)**

Industries within the photographic industry, to include but not limited to, portrait, fine art, landscape, table top. Photographic production for print media and website.

Prerequisite(s): PHO 1100, PHO 1102, and PHO 1103

Corequisite(s): PHO 1125

Terms Offered: Spring

### **PHO 1125 Imaging Editing/Digital Darkroom (2)**

Continuation of PHO 1102. Advanced features of Adobe Photoshop: edit, retouch, and manipulate image files for hard copy output and web; professional quality prints. Work with layers, channels, paths, masks and other techniques to create high-quality creative images for a variety of professional applications.

Prerequisite(s): PHO 1100, PHO 1102, and PHO 1103

Corequisite(s): PHO 1124

Terms Offered: Spring

### **PHO 1126 Lighting Techniques (2)**

How direction, quality, and intensity of light affect the mood, style, and story of the image.

Prerequisite(s): PHO 1100 and PHO 1102

Pre/Corequisite(s): PHO 1124 and PHO 1125

Terms Offered: Spring

### **PHO 1137 Photographic Practicum (2)**

Real world experience in the Photographic Industry. Assignment to a photographic business provider to perform functions of that business and be supervised by business professionals. Prerequisite(s): PHO 1100, PHO 1102, PHO 1103, PHO 1124, PHO 1125 and PHO 1126  
Terms Offered: Summer

### **PHO 1138 Photographic Portfolio (2)**

Development of personal reflecting portfolio, knowledge and skill in primary discipline as well overall imaging ability. Industry standards are maintained. A hard copy output version and an HTML or Flash file electronic version created. Prerequisite(s): PHO 1100, PHO 1102, PHO 1103, PHO 1124, PHO 1125 and PHO 1126  
Terms Offered: Summer

### **PHO 1150 Forensic Photography (3)**

Fundamentals of photography utilizing digital media for law enforcement. Application of imaging to criminal and civil investigations including the preparation of courtroom presentation. Prerequisite(s): CPE 0100 and/or equivalent Compass score  
Terms Offered: Fall

## **(PHY) Physics**

### **PHY 1000 Fundamentals of Scientific Methods and Problem Solving (3)**

Emphasis on measurement, unit conversion, manipulation of variables, scientific method  
Pre/Corequisite(s): CPE 0300  
Terms Offered: TBA

### **PHY 1100 Fundamentals of Physics (4)**

Physics concepts for students with no Physics background and/or minimal science/math background. Lab incorporates computer-assisted data gathering and analysis. Prereq: CPE 0300  
Pre/corequisite(s): ENG 1111  
Terms Offered: Fall, Spring, Summer

### **PHY 1200 Introduction to 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. Prereq: CPE 0100; PC--CPE 0500 (appropriate COMPASS scores acceptable)  
Terms Offered: TBA

### **PHY 1501 General Physics I with Algebra (5)**

Algebra-based Physics to include mechanics, laws of motion & energy, heat & thermodynamics, Solids-liquids-gases, vector algebra, angular momentum, and rotational energy. Lab incorporates computer-assisted data gathering and analysis. Prereq: MTH 1280 (or COMPASS score)  
Pre/coreq: MTH 1340 (or COMPASS score, or equivalent of old ENT 101) , ENG 1111  
Terms Offered: TBA

### **PHY 1502 General Physics II with Algebra (5)**

Algebra-based Physics, continuation of PHY 1201 to include: Electricity and magnetism, Atomic/nuclear physics, optics. Lab incorporates computer-assisted data gathering and analysis. Prereq: PHY 1501, MTH 1340 (or COMPASS) ENG 1111  
Terms Offered: TBA

### **PHY 2501 College Physics I with Calculus (5)**

Kinematics in one and two dimensions; vectors and simple vector analysis; force and Newton's Laws of Motion and Gravitation; work, energy and conservation of energy; impulse and linear momentum, including elastic and inelastic collisions; rotational kinematics and dynamics, including angular momentum and rotational energy; simple harmonic motion and damped-driven oscillations; waves and sound; fluids and elasticity; heat and thermodynamics; kinetic theory of gases; collection, analysis, and reporting of data; problem solving using calculus concepts and methods. Prerequisite(s): PHY 1100 or PHY 1501  
Pre/Corequisite(s): ENG 1111 and MTH 2200  
Terms Offered: Fall

### **PHY 2502 College Physics II with Calculus (5)**

Calculus-based physics to include: electricity; magnetism; electromagnetism; geometric and wave optics; relativity; quantum physics; atomic physics; nuclear physics; collection, analysis and reporting of data; problem solving using calculus concepts and methods. Prerequisite(s): PHY 2501  
Pre/Corequisite(s): ENG 1112 and MTH 2200  
Terms Offered: Spring

## **(PLS) Political Science**

### **PLS 1100 Introduction to American Politics (3)**

Historical foundations of US government; theoretical underpinnings of important government documents; political behavior, voting behavior and the campaign process. Policymaking process and the role of interest groups and the media. The history and role of political parties in the US. Three branches of United States government and how they function. Formal rules and procedures in American government. Prerequisite(s): CPE 0200, grade of B or better in CPE 0300 or a grade of C or better in CPE 0400, or appropriate Compass score  
Pre/Corequisite(s): ENG 1111  
Terms Offered: Fall, Spring

### **PLS 1300 Introduction to Comparative Politics (3)**

Comparative method as it applies to government authority structures, parliamentary and presidential democratic systems; authoritarian, totalitarian, hybrid and democratic regimes; patterns of economic and political development; linkages between economic and political development; comparison of political institutions; political ideologies including liberalism, communism, socialism, anarchism, conservatism, and islamism; civil society and social capital; democratization and regime change. Prerequisite(s): CPE 0200, grade of B or better in CPE 0300 or a grade of C or better in CPE 0400, or appropriate Compass score

Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring

### **PLS 2200 Constitutional Law (3)**

History and philosophy of the American constitution; theories of constitutional interpretation; judicial review; role of the supreme court in shaping government and society; Supreme Court and the bill of rights; landmark cases.

Prerequisite(s): ENG 1111  
Pre/Corequisite(s): ENG 1112  
Terms Offered: Spring

### **PLS 2300 Introduction to International Relations (3)**

Evolution of world system, state and nonstate actors, inter-governmental organizations, nation states, multi-national corporations, conflict and cooperation between actors, democratic peace theory, liberalism, realism, constructivism, Marxism, feminism, international events and daily life, links between domestic and international politics, foreign policymaking process, historical world events and contemporary world events, and international political economy.

Prerequisite(s): CPE 0200, grade of B or better in CPE 0300 or a grade of C or better in CPE 0400, or appropriate Compass score  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring

## **(PSY) Psychology**

### **PSY 1111 Introduction to Psychology (3)**

Introduction to fundamental principles and practices of psychology, including history, methods, biology of behavior, consciousness, perception, learning, thinking, intelligence, language, memory, social and organizational behavior, development, personality, psychopathology and treatment.  
Prerequisite(s): CPE 0100 or appropriate Compass score  
Pre/Corequisite(s): CPE 0300  
Global Awareness.  
Terms Offered: Fall, Spring

### **PSY 2218 Introduction to Educational Psychology (3)**

Major theories of learning, development, and motivation in an educational setting. Exploration of the similarities and differences in student learning, types of instructional strategies, factors that affect student's learning and development. Principles of assessment strategies, including design, implementation, and evaluation.

Prerequisite(s): EDU 1110 and ENG 1111  
Terms Offered: Spring

### **PSY 2223 Lifespan Human Growth and Development (3)**

A lifespan study of the biological, cognitive, cultural, environmental and psychosocial development of human beings and the issues surrounding these developments from conception to death. Analysis of theories, myths and misconceptions, and methodological approaches of human development are explored. Applications of developmental psychology principles are made to daily life throughout the lifespan.

Prerequisite(s): ENG 1111 and PSY 1111  
Pre/Corequisite(s): ENG 1112  
Terms Offered: Fall, Spring

### **PSY 2230 Abnormal Psychology (3)**

Describe the clinical picture and clinical assessment of suicide, legal issues in abnormal psychology and the major psychological disorders: anxiety, stress, dissociative, somatoform, mood, eating, substance, sexual, schizophrenia, personality, childhood and aging disorders. Apply facts to the understanding of the diagnosis, etiology, prognosis and treatment of psychological disorders. Evaluate research, historical and cultural viewpoints as well as current theoretical views of psychological disorders.

Prerequisite(s): ENG 1111 and PSY 1111  
Pre/Corequisite(s): ENG 1122  
Global Awareness.  
Terms Offered: Fall, Spring

## **(PTA) Physical Therapist Assistant**

### **PTA 1110 PTA Survey (2)**

History of physical therapy. History and role of professional organizations, legal and ethical accountability and healthcare delivery systems. Introduction to the role and scope of work for the physical therapist assistant. Introduction to interpersonal communication, cultural diversity, disability awareness and professional behavior.

Prerequisite(s): none  
Pre/Corequisite(s): ENG 1111  
Terms Offered: Fall, Spring

### **PTA 1120 PTA Procedures I (4)**

Introduction and practice of basic therapeutic procedures: body mechanics, vital signs, infection control, goniometry for all appropriate joints, manual muscle testing for all appropriate muscles / muscle groups; verbal and written communication; clinical documentation; professional behavior; introduction to therapeutic exercise.

Pre/Corequisite(s): ENG 1111, PTA 1110, BIO 1118, BIO 2121, and MST 1105  
Instructor Permission Required.  
Terms Offered: Fall

### **PTA 1146 PTA Procedures II (6)**

Pathology, data collection and PT intervention for cardiovascular, lymphatic, immune, endocrine/metabolic integumentary, gastrointestinal, genitourinary, respiratory disorders and amputations. Positioning, wheelchair mobility, bed mobility, transfers, gait training, orthotics and prosthetics. Professional behavioral development. Laboratory practice.

Prerequisite(s): BIO 1118, BIO 2121, MST 1105, PTA 1110 and PTA 1120  
Pre/Corequisite(s): PTA 1160, ENG 1112 and BIO 2122  
Terms Offered: Spring

**PTA 1160 PTA Rehabilitation I (6)**

Pathology, data collection and PT intervention for orthopedic conditions and musculoskeletal disorders; positioning, bed mobility, transfers, gait training application to course-related diagnoses; massage, traction and detailed study therapeutic exercise and exercise design. Professional behavioral development. Laboratory practice.

Prerequisite(s): BIO 1118, BIO 2121, MST 1105, PTA 1110 and PTA 1120

Pre/Corequisite(s): ENG 1112, BIO 2122 and PTA 1146

Terms Offered: Spring

**PTA 2241 PTA Procedures III (5)**

Physical agents including E-stim, hydrotherapy, diathermy, ultrasound, TENS, MENS, phonophoresis, iontophoresis. Integumentary system and wound care. Theories of pain. Professional behavioral development.

Prerequisite(s): PTA 1146, PTA 1160 and BIO 2122

Corequisite(s): PTA 2245

Terms Offered: Summer

**PTA 2245 PTA First Year Capstone (1)**

Goniometry, manual muscle testing, wheelchair mobility, transfers, gait training, exercise design, clinical reasoning, communication. Professional behavior development.

Prerequisite(s): PTA 1146, PTA 1160 and BIO 2122

Pre/Corequisite(s): PTA 2241

Terms Offered: Summer

**PTA 2260 PTA Rehabilitation II (6)**

Pathology, data collection and PT interventions for adult neurological impairments and pediatrics. Normal motor development and motor control. Application of positioning, bed mobility, transfers, gait training and therapeutic exercise to course-related diagnoses. Adaptive seating, environmental assessment and professional behavior development. Laboratory practice.

Prerequisite(s): PTA 2241 and PTA 2245

Pre/Corequisite(s): COM 1110 and PSY 1111

Terms Offered: Fall

**PTA 2270 PTA Trends and Issues (1)**

Current trends in practice. Healthcare financing. Interpersonal communications. Contracts. Supervisory/management skills. Ethical issues. Professional behavioral development.

Prerequisite(s): PTA 2241, PTA 2245 and ENG 1112

Pre/Corequisite(s): PTA 2260 and COM 1110

Terms Offered: Fall

**PTA 2275 PTA Special Topics (1)**

Study of special topics related to the field of physical therapy including women's health, health promotion, mental health, emergency medicine, occupational work hardening, common diagnostic procedures and additional topics as selected by the instructor. Offered in an 8 week session.

Prerequisite(s): PTA 2260, PTA 2270, PTA 228 and PTA 2291

Corequisite(s): PTA 2282 and PTA 2292

Terms Offered: Spring

**PTA 2281 Directed Practice I (2)**

Provision of physical therapy services in a clinical setting; application of knowledge and role of the physical therapist assistant, performance of skills and professional behavior at a developing level. Supervised by clinical and academic faculty. Part-time; 20 hours per week. Offered in an 8 week session.

Prerequisite(s): PTA 2241 and PTA 2245

Pre/Corequisite(s): PTA 2260, PTA 2270, COM 1110 and PSY 1111

Corequisite(s): PTA 2291

Instructor Permission Required.

Terms Offered: Fall

**PTA 2282 PTA Directed Practice II (2)**

Provision of physical therapy services in a clinical setting. Continued application of knowledge and role of the physical therapist assistant, performance of skills and professional behavior at a progressively developing level. Supervised by clinical and academic faculty. Part-time; 20 hours per week. Offered in an 8 week session.

Prerequisite(s): PTA 2260, PTA 2270, PTA 2281 and PTA 2291

Pre/Corequisite(s): PSY 2223

Corequisite(s): PTA 2292 and PTA 2275

Terms Offered: Spring

**PTA 2283 PTA Directed Practice III (4)**

Provision of physical therapy services in the clinical setting. Continued application of knowledge and role, performance of skills and professional behavior. Performance progresses to entry-level practice consistent with the role and scope of practice of the physical therapist assistant in implementing the plan of care established by the physical therapist. Supervised by clinical and academic faculty. Full-time; 40 hours per week. Offered in an 8 week session.

Prerequisite(s): PTA 2260, PTA 2270, PTA 2282 and PTA 2292

Pre/Corequisite(s): PSY 2223

Corequisite(s): PTA 2293

Terms Offered: Spring

**PTA 2291 Seminar I (1)**

Companion course to PTA 2281. Discussion of clinical situations and problem solving; focus on self-evaluation; understanding the work setting and client, coworker behaviors as related to Directed Practice I. Ethical issues and selected, course-related topics as determined by the instructor. Initial development of Capstone Portfolio that encompasses didactic and clinical information collected throughout the clinical experiences. Offered in an 8 week session.

Prerequisite(s): PTA 2241 and PTA 2245

Pre/Corequisite(s): PTA 2260, PSY 1111, COM 1110 and PTA 2270

Corequisite(s): PTA 2281

Terms Offered: Fall

**PTA 2292 Seminar II (1)**

Companion course to PTA 2282. Discussion of clinical situations and problem solving; focus on self-evaluation; understanding the work setting and client, coworker behaviors as related to Directed Practice II. Ethical issues and selected course-related topics as determined by the instructor. Continued development of Capstone Portfolio that encompasses didactic and clinical information collected throughout the clinical experiences.



Offered in an 8 week session.  
Prerequisite(s): PTA 2260, PTA 2270, PTA 2281 and PTA 2291  
Pre/Corequisite(s): PSY 2223  
Corequisite(s): PTA 2282 and PTA 2275  
Terms Offered: Spring

### **PTA 2293 Seminar III (1)**

Companion course to PTA 2283. Discussion of clinical situations and problem solving; understanding the work setting and client/coworker behaviors related to Directed Practice III. Ethical issues and selected course-related topics as determined by the instructor. Completion of Capstone Portfolio that encompasses didactic and clinical information collected throughout the clinical experiences. Present a second-year Capstone Project. Offered in an 8 week session.  
Prerequisite(s): PTA 2260, PTA 2270, PTA 2282 and PTA 2292  
Pre/Corequisite(s): PSY 2223  
Corequisite(s): PTA 2283  
Terms Offered: Spring

### **PTA 290B Bridge Course/PTA 265 (1)**

PTA quarters to semester bridge course. Orthotics, amputations, prosthetics and chronic pain.  
Instructor Permission Required.  
Terms Offered: Summer

## **(RCR) Realtime Court Reporting**

### **RCR 1200 Survey of Realtime Reporting (1)**

Opportunities available in the field of realtime reporting, including the skills and knowledge required, professional organizations and the ethics of realtime reporting. Topics: Judicial Reporting, Official Reporting, Freelance Reporting, Closed Captioning, Communication Access Realtime Transcription (CART), Medical Transcription, Data Entry, National Court Reporters Association (NCRA), Ohio Court Reporters Association (OCRA), NCRA Code of Professional Ethics, Certifications, Continuing Education Units (CEUs) and Life-long Learning.  
Prerequisite(s): CPE 061 or CPE 0100  
Terms Offered: Fall

### **RCR 1201 Realtime Theory (6)**

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): CPE 061 or CPE 0100  
Corequisite(s): RCR 1211  
Terms Offered: Fall

### **RCR 1202 Beginning Speed Building (3)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary, Jury Charge and Testimony material for development of skill and accuracy in speeds ranging from 60-120 words per minute.

Prerequisite(s): RCR 1201 and RCR 1211  
Corequisite(s): RCR 1212 and RCR 1250  
Terms Offered: Spring

### **RCR 1203 Intermediate Speed Building (3)**

Further development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary, Jury Charge and two-voice Testimony material for development of skill and accuracy in speeds ranging from 120-160 words per minute. Introduction to multi-voice dictation, use of speaker IDs and computer-integrated courtroom setup.  
Prerequisite(s): RCR 1202 and RCR 1212  
Corequisite(s): RCR 1213 and RCR 1250  
Terms Offered: Summer

### **RCR 1211 Introduction to Realtime Writing (1)**

Connections of realtime equipment, troubleshooting and perfecting approved National Court Reporters Association (NCRA) realtime theory outlines using realtime equipment and translation software. Quality practice techniques. Production of one-page unedited realtime transcript of familiar material with accuracy rate of 96 percent.  
Corequisite(s): RCR 1201  
Terms Offered: Fall

### **RCR 1212 Beginning Realtime Writing (1)**

Realtime dictionary building with emphasis on incorporating Jury Charge and Testimony briefforms and phrases for accurate translation. Endurance accuracy building during realtime ten-minute writing periods with an accuracy rate of 96 percent. Production of one-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent.  
Prerequisite(s): RCR 1201 and RCR 1211  
Corequisite(s): RCR 1202  
Terms Offered: Spring

### **RCR 1213 Intermediate Realtime Writing (1)**

Realtime dictionary building with emphasis on writing numbers and alphabets using Realtime Commands Dictionary. Endurance accuracy building during realtime 12-minute writing periods with an accuracy rate of 96 percent. Production of two-page unedited realtime transcript of unfamiliar materials with accuracy rate of 96 percent.  
Prerequisite(s): RCR 1202 and RCR 1212  
Corequisite(s): RCR 1203  
Terms Offered: Summer

### **RCR 1220 Law and Legal Terminology (2)**

Overview of the judicial system and the legislative process with emphasis on legal terminology as applied in civil and criminal law.  
Prerequisite(s): RCR 1200 and RCR 1211  
Terms Offered: Spring

### **RCR 1231 Fundamentals of CAT (2)**

Principles of transcript production using computer-aided transcription software (CATalyst4).  
Prerequisite(s): RCR 1200, RCR 1211, and ITS 1105  
Terms Offered: Summer

**RCR 1250 Transcription (2)**

Monitored transcription of speed dictation tests in each of the areas of dictation concentration within the required concurrent speed course. Transcription completed within 70 minutes immediately following recorded dictation. Analyzation of student transcript of test dictation as tool for reviewing vocabulary, grammar, spelling and punctuation as well as to determine speed growth and accuracy required. Use of online, computer-aided transcription technology with teacher interaction.

Prerequisite(s): RCR 1200 and RCR 1211

Corequisite(s): RCR 1202, RCR 1203, RCR 2201 or RCR 2202

Terms Offered: Fall, Spring

**RCR 1255 Skill Building (3)**

Skill-development activities, including three additional assessments of speed and accuracy skill level per week in conjunction with concurrent realtime speed-development course. Instructor-monitored 80-minute test/transcription time. Analyzation of student transcript of test dictation as tool for determining quality practice needs for continual speed growth and for improved accuracy. Monitored transcription of speed dictation tests in each of the areas of dictation concentration within the required concurrent speed course. Transcription completed within 70 minutes immediately following recorded dictation. Use of online, computer-aided transcription technology with teacher interaction.

Prerequisite(s): RCR 1201 and RCR 1211

Corequisite(s): RCR 1202, RCR 1203, RCR 2201 or RCR 2202

Terms Offered: Fall, Spring

**RCR 2032 Advanced CAT Concepts (2)**

Advanced principles of transcript production using CaseCATalyst4 computer-assisted translation software.

Prerequisite(s): RCR 1231

Terms Offered: Fall

**RCR 2045 Judicial Reporting Techniques (2)**

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): RCR 1203 and RCR 1231

Terms Offered: Fall

**RCR 2050 Transcript Production (2)**

Application of transcript editing and production techniques with a focus on proper scoping and proofreading skills in preparation for employment.

Prerequisite(s): RCR 2032, RCR 2045 and RCR 2201

Terms Offered: Spring

**RCR 2080 Court Reporting Professional Experience (1)**

Judicial reporting practice in both the official and freelance areas, with a minimum of 40 writing hours in each.

Prerequisite(s): RCR 2032, RCR 2045, RCR 2201 and RCR 2211  
Instructor Permission Required.

Terms Offered: Fall, Spring

**RCR 2100 Introduction to the Deaf Community (2)**

Overview of the deaf and hard-of-hearing communities and their social, cultural and educational experiences, including myths and misconceptions and types of accommodations. Introduction to American Sign Language (ASL) as used in the United States and parts of Canada. Implementation of National Court Reporters Association (NCRA) Guidelines for Professional Practice for Captioners and CART Providers and current Communication Access Realtime Translation (CART) Provider's Manual.

Prerequisite(s): CPE 0100

Terms Offered: Fall

**RCR 2101 Captioning /CART I (2)**

Introduction to captioning software and application of Computer-aided Transcription (CAT) functions for use in both captioning and Communication Access Realtime Translation (CART) technologies, including building dictionaries, managing and loading dictionaries for proper translation, paraphrasing in realtime, screen setup and display, use and editing of phonetic translator, on-screen globaling and defining, word substitution in realtime, and accurate finger spelling. Build writing endurance by writing class lectures, seminars and broadcast news programming. Production of ten-minute broadcast news program with a goal of 96 percent verbatim accuracy.

Prerequisite(s): RCR 1203, RCR 1213 and RCR 1231

Terms Offered: Fall

**RCR 2102 Captioning/CART II (1)**

Implementation of captioning software and Computer-Aided Transcription (CAT) functions for use in both captioning and Communication Access Realtime Translation (CART) technologies. Continued emphasis on building dictionaries and managing and loading dictionaries for proper translation as preparation for employment. Expanded application of captioning and CART writing techniques while building realtime writing endurance by writing class lectures, seminars, and broadcast news programming. Production of 15-minute broadcast news program with 96 percent verbatim accuracy.

Prerequisite(s): RCR 2101, RCR 2145, RCR 2201 and RCR 2211

Pre/Corequisite(s): none

Terms Offered: Spring

**RCR 2145 Captioning/CART Business Practices (2)**

Overview of broadcast captioning and Communication Access Realtime Translation (CART), including, but not limited to, the psychology of on-air captions, Federal Communications Commission (FCC) regulations, broadcast news production, prescripting, the National Court Reporters Association (NCRA) CART Provider's Manual, NCRA Guidelines for Professional Practice for Captioners and CART Providers and the Americans with Disabilities Act (ADA).

Prerequisite(s): CPE 0500, RCR 1203, RCR 1213 and RCR 1231

Terms Offered: Fall

**RCR 2180 Captioning/CART Professional Experience (1)**

Broadcast captioning practice with a minimum of 40 hours in the broadcast studio or other approved activity. Communication Access Realtime Translation (CART) practice with a minimum

of 40 hours in the classroom or other approved activity.

Prerequisite(s): RCR 2145 and RCR 2201

Instructor Permission Required.

Terms Offered: Spring

### **RCR 2201 Advanced Speed Building (3)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary, Jury Charge, and two-voice and multi-voice Testimony material for development of skill and accuracy in speeds ranging from 160-200 words per minute. Expanded application of multi-voice dictation using speaker IDs and demonstrating knowledge of computer-integrated courtroom setup.

Prerequisite(s): RCR 1203 and RCR 1213

Corequisite(s): RCR 1250 and RCR 2211

Terms Offered: Fall

### **RCR 2202 Terminal Speed Building (3)**

Development of writing skills, readback and analysis of shorthand notes, proofreading skills and quality practice habits. Dictation in Literary, Jury Charge, and two-voice and multi-voice Testimony material for development of skills and accuracy in speeds ranging from 180-225 words per minute. Expanded application of multi-voice dictation using speaker IDs and demonstrating knowledge of computer-integrated courtroom setup. Terminal speeds of 180 wpm with 95 percent accuracy (Judicial) 96 percent accuracy (Captioning/CART) in Literary, 200 wpm with 95 percent accuracy in Jury Charge, and 225 wpm with 95 percent accuracy in Testimony.

Prerequisite(s): RCR 2201 and RCR 2211

Corequisite(s): RCR 1250 and RCR 2212

Terms Offered: Spring

### **RCR 2211 Advanced Realtime Writing (1)**

Realtime dictionary building with emphasis on dictionary growth using realtime prefixes and suffixes. Endurance accuracy building 15- to 20-minute writing periods with accuracy rate of 96 percent. Production of three- and four-page unedited realtime transcripts of unfamiliar material with accuracy rate of 96 percent.

Prerequisite(s): RCR 1213

Corequisite(s): RCR 2201

Terms Offered: Fall

### **RCR 2212 Terminal Realtime Writing (1)**

Realtime dictionary analysis and dictionary building of medical and technical terminology. Endurance accuracy building sustained 20-minute writing periods with accuracy of 96 percent. Production of five-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent.

Prerequisite(s): RCR 2211

Corequisite(s): RCR 2202

Terms Offered: Spring

## **(RES) Real Estate**

### **RES 1100 Real Estate Principles (3)**

Ohio Division of Real Estate & Professional Licensing principles and practices. Introduction to the market of real property, contractual/property rights, investment and ownership. Guidelines and operations for the real estate professional. Meets state requirements for licensing.

Prerequisite(s): CPE 0200

Terms Offered: Fall, Spring

### **RES 1200 Real Estate Law (3)**

Real estate transactions and development from the perspective of legal professionals. Contracts, agency, civil rights, deeds, mortgages and listing/purchasing agreements. Meets state requirements for licensing.

Prerequisite(s): CPE 0200

Terms Offered: Fall, Spring

### **RES 1300 Real Estate Appraisal (2)**

Real estate appraisal techniques including market comparison, cost and income. Principles, process and factors that influence the value of real estate. Single-family residential property, with some aspects of commercial income producing properties. Meets state requirements for licensing.

Prerequisite(s): CPE 0200

Terms Offered: Fall, Spring

### **RES 1400 Real Estate Finance (2)**

Real estate finance in both primary and secondary markets. Financing instruments and techniques. Mortgage payment patterns, economic characteristics, standards, and financing of single and income-producing properties. Meets state requirements for licensing.

Prerequisite(s): CPE 0200

Terms Offered: Fall, Spring

## **(RST) Regional Studies**

### **RST 2600 Regional Studies: North India (3)**

Sorry, no description is available for this course.

### **RST 2700 Regional Studies: Africa (3)**

The history of Africa from early man to the present. Focus on the social economic, political, religious and cultural development of ice age to the ancient, medieval and to the present world.

Prerequisite(s): ENG 1111

Pre/Corequisite(s): ENG 1112

Global Awareness.

Terms Offered: Fall

### **RST 2800 Regional Studies of Latin America (3)**

Survey course of the land, people, history, politics, social institutions, economic development, literature and the arts of Latin America.

Prerequisite(s): ENG 1111

Corequisite(s): ENG 1122

Global Awareness.

Terms Offered: Fall, Spring

# (SOC) Sociology

## **SOC 1110 Introduction to Sociology (3)**

Analysis of social theory, methodology, and principles to provide a framework to study culture, socialization, stratification and deviance. Comparative analysis of sociologically relevant diverse worldviews: examining political, spiritual and social systems, economic and cultural traditions.

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring

## **SOC 2220 Comparing Cultures (3)**

Compare and contrast non-western world cultures with focus on family organizations, food-getting, social stratification, economics, religion, the arts and change.

Pre/Corequisite(s): ENG 1111 and SOC 1110

Global Awareness.

Terms Offered: Fall, Spring

## **SOC 2230 Social Problems (3)**

Builds on a general understanding of contemporary causes, treatment, and prevention of social problems within the United States. Advance understanding of social problems, and proposed solutions through the lens of three sociological theories and methodologies. Analyzing proposed solutions to social problems from culturally diverse perspectives.

Pre/Corequisite(s): SOC 1110 and ENG 1111

Terms Offered: Fall, Spring

## **SOC 2240 Racial and Cultural Minorities (3)**

Racial, ethnic, and religious diversity in the United States, focusing on a sociological examination of Afro-Americans, Native Americans, regional minorities, diverse immigrant groups and women.

Pre/Corequisite(s): ENG 1111 and SOC 1110

Global Awareness.

Terms Offered: Fall, Spring

## **SOC 2250 Sociology of Poverty: Feminization of Poverty (3)**

Historical trends of poverty, stratification of social class, homelessness, families in poverty, feminization of poverty and racialization of poverty. Consider proposed poverty reducing strategies.

Pre/Corequisite(s): SOC 1110 and ENG 1111

Terms Offered: Fall, Winter, Spring, Summer

## **SOC 2260 Sociology of Sex and Gender (3)**

Analysis of the impact of social and cultural values and norms on human sexuality and gender.

Prerequisite(s): SOC 1110 and ENG 1111

Terms Offered: Fall, Spring

# (SPN) Spanish

## **SPN 1100 Survival Spanish (2)**

Basic pronunciation, phrases and greetings in Spanish for travel or work. Tools for understanding and forming sentences in Spanish. May not be taken for credit toward graduation if successfully completed SPN 1111, 1112, 2111, 2112 or above at

Clark State or any other accredited institution. True beginners level. Will not meet language requirement for transfer at four-year institutions.

Prerequisite(s): CPE 061 ("True Beginners Level" only)

Global Awareness.

Terms Offered: Fall, Spring

## **SPN 1111 Spanish I (3)**

Beginning-level vocabulary and structures of Spanish. Practice speaking, reading, writing and listening in the target language. Introduction to indicative mood of regular and irregular verbs; preterit and imperfect. Not for credit if successfully completed equivalent course at any other accredited institution.

Prerequisite(s): CPE 0100 and CPE 0300

Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall

## **SPN 1112 Spanish II (3)**

Further study of the vocabulary and structure of the Spanish language; practice in speaking, reading, listening comprehension and writing. Introduction to commands, present and imperfect subjunctive moods, future and conditional. Not for credit if successfully completed equivalent course at any other accredited institution.

Prerequisite(s): SPN 1111 with a C or higher (or equivalent course at accredited institution) or Instructor Permission.

Global Awareness.

Terms Offered: Spring

## **SPN 2111 Spanish III (3)**

Grammar review. Reading and discussion of selected texts with practice in speaking and writing the language.

Prerequisite(s): SPN 1112 with a C or higher (or equivalent course at accredited institution or instructor permission)

Global Awareness.

Terms Offered: Fall

## **SPN 2112 Spanish IV (3)**

Further grammar review and language development. Reading and discussion of selected texts with practice in speaking and writing the language.

Prerequisite(s): SPN 2111 with a C or higher (or equivalent at another accredited institution or instructor permission)

Global Awareness.

Terms Offered: Spring

# (STT) Statistics

## **STT 2640 Elementary Statistics I (3)**

Introduction to statistical techniques and methodology, including terminology, sample methods, descriptive statistics, data analysis, data relationships, elementary set theory, elementary probability, random variables, Poisson distribution, binomial distribution, contingency tables and estimation; with a laboratory exploration of probabilistic and statistical concepts and compilation of routine statistical computations.

Prerequisite(s): CPE 0700

Terms Offered: Fall, Spring

### **STT 2650 Elementary Statistics I (2)**

Application of statistical techniques and methodology, including sampling theory, 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 2640

Terms Offered: Fall, Spring

## **(SWK) Social Work**

### **SWK 1100 Introduction to Social Work (3)**

Introduction to the profession: historical development, value base, social systems perspective on social problems and major fields of practice. Includes required knowledge, skills and values; critical thinking; problem solving; self-awareness; and appreciation of racial, ethnic and cultural pluralism.

Pre/Corequisite(s): ENG 1111

Terms Offered: Fall

### **SWK 1105 Chemical Dependency I: Pharmacology and Physiology of Psychoactive Substances (3)**

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 0100

Terms Offered: Fall, Spring

### **SWK 1121 Social Work Methods and Procedures (4)**

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 different theoretical perspectives including the case management model. Motivational interviewing techniques.

Pre/Corequisite(s): SWK 1100 and ITS 1105 or Instructor Permission

Terms Offered: Spring

### **SWK 1136 Affective Education and Group Treatment (3)**

Intrapersonal and interpersonal communication skills. Emphasis on personal growth and development. Group treatment model. Various group types, functions and processes.

Pre/Corequisite(s): ENG 1111, ITS 1105, SWK 1100 or Instructor Permission

Terms Offered: Spring

### **SWK 2205 Chemical Dependency II: Assessment, Diagnosis, and Treatment Strategies (3)**

Theories of addiction. Treatment and prevention models and strategies with abusive/addicted populations. Counseling techniques and strategies used in individual, group, and family approaches to addictions treatment. Concepts and practices of assessment, diagnosis and treatment planning.

Prerequisite(s): ENG 1111 and SWK 1105 or Instructor Permission

Terms Offered: Fall

### **SWK 2215 Chemical Dependency III: Co-Occurring Disorders of Addiction and Mental Health (3)**

Study of the population presenting with both substance abuse/addiction and mental health symptoms. History, definitions, symptomatology, assessment and treatment strategies of Co-Occurring Disorders (COD).

Prerequisite(s): SWK 1105, ENG 1111 or Instructor Permission

Terms Offered: Spring

### **SWK 2218 Social Work and Mental Health (3)**

Social work practice serving individuals with mental health issues. Overview of the service systems and treatment approaches.

Pre/Corequisite(s): SWK 1121 or Instructor Permission

Terms Offered: Fall

### **SWK 2230 Introduction to Social Welfare (3)**

Social welfare policy process through history, development, and organization of social welfare and social work.

Pre/Corequisite(s): ENG 1112, ITS 1105 and SWK 1100 or Instructor Permission

Terms Offered: Fall

### **SWK 2231 Introduction to Social Welfare (3)**

Social welfare policy process through history, development and organization of social welfare and social work. Associate of Arts/Pre-Social Work degree majors for transfer into Wright State University's College of Social Work. 30 observation hours. May not take both SWK 2230 and SWK 2231 for credit toward graduation.

Pre/Corequisite(s): ENG 1112, ITS 1105 and SWK 1100 or Instructor Permission

Instructor Permission Required.

Terms Offered: Fall

### **SWK 2232 Generalist Practice with Families (3)**

Generalist social work practice model with emphasis on families, social work role, planning, goal setting, evaluation and crisis work strategies within a generalist model of intervention.

Pre/Corequisite(s): SWK 1121 or Instructor Permission

Terms Offered: Spring

### **SWK 2260 Multicultural Competence in a Diverse World (3)**

Introduction to the knowledge, skills and processes required to develop a cultural competency. Historical development of discrimination. Need for cultural competency within the U.S. and international communities in the delivery of health and human services practices.

Prerequisite(s): SWK 1121, ENG 1111 or Instructor Permission

Terms Offered: Fall

### **SWK 2271 Social Services Practicum I (2)**

Practicum placement of 210 hours in local social service agency under professional supervision. Development of professional social work skills, integration of social work theories and skill-based training and professional social work documentation.

Prerequisite(s): SWK 1121

Corequisite(s): SWK 2291

Instructor Permission Required.

Terms Offered: Fall

**SWK 2272 Social Services Practicum II (2)**

Practicum placement of 210 hours in local social service agency under professional supervision. Development of professional social work skills, integration of social work theories and skill-based training and professional social work documentation. Prerequisite(s): SWK 1121  
Corequisite(s): SWK 2292  
Instructor Permission Required.  
Terms Offered: Spring

**SWK 2291 Social Services Seminar I (1)**

The first of two courses designed to provide a forum for student shared learning and problem solving involving their practicum placements. Integrate the practicum experience and social work theory in a classroom setting. Prerequisite(s): SWK 1121  
Corequisite(s): SWK 2271  
Instructor Permission Required.  
Terms Offered: Fall

**SWK 2292 Social Services Seminar II (1)**

The second of two courses designed to provide a forum for student shared learning and problem solving involving practicum placements. Will integrate the practicum experience and social work theory in a classroom setting. Prerequisite(s): SWK 1121  
Corequisite(s): SWK 2272  
Instructor Permission Required.  
Terms Offered: Spring

**SWK 290B Bridge Course (SWK 236/238) (3)**

Quarters-to-semester bridge course. Overview and application of generalist practice skills to perform case management assessment, planning and implementation with high-risk populations (SWK 236). Overview of history and development of group work, professional ethics, curative factors, stages of group development, theories of change and effective leadership characteristics (SWK 238). Instructor Permission Required.  
Terms Offered: Fall

## (THE) Theatre

**THE 1107 Voice and Speech for the Actor (3)**

Basic training and practice in the actor's use of voice and speech for the stage.  
Terms Offered: Fall

**THE 1111 Stagecraft I (3)**

Introduction to the areas of technical theatre with a strong emphasis on scenery construction techniques. Tools, materials, hardware, and basic approaches to building and painting scenery for the stage. Hands-on experiences and lectures culminating in the final class project of building and painting the Theatre Program's fall production. Prerequisite(s): CPE 0100 or equivalent Compass score  
Terms Offered: Fall

**THE 1112 Stagecraft II (3)**

Continuation of Stagecraft 1 with special emphasis on advanced scenic and painting techniques, reading working drawings and the basics of scenic design. Hands-on experiences and lectures culminating in the final class project of building and painting the Theatre Program's spring production. Prerequisite(s): THE 1111  
Terms Offered: Spring

**THE 1115 Props, Wardrobe, and Makeup (3)**

Focus on skills needed to work on props, wardrobe and makeup for the theatre. General techniques for building and finding properties, repairing and dressing costumes and applying corrective and specialty makeup.  
Terms Offered: Spring

**THE 1130 Theatre Appreciation (3)**

Exploration of the artists, the plays and the history that has shaped today's theatre. Prerequisite(s): CPE 0100 and/or equivalent Compass score Global Awareness.  
Terms Offered: Fall, Spring

**THE 1133 Script Analysis (3)**

Introduction to script analysis: identifying plot, structure, action, themes and application to the stage. Prerequisite(s): CPE 0600, grade of B or better in CPE 0300 or a grade of C or better in CPE 0400 and/or equivalent Compass score  
Pre/Corequisite(s): or equivalent Compass score  
Terms Offered: Fall, Spring

**THE 1140 Movement for Actors (3)**

Movement principles for actors including alignment, weight transference, simple movements and movement combinations with brief study of modern movement techniques. Pre/Corequisite(s): none  
Terms Offered: Spring

**THE 1150 Theatre Laboratory I (1)**

Experience in performance, design, production or management. Open to all students. Meets graduation requirements for AA in Performing Arts or Technical Theatre students. Maximum 4 credit hours. May be repeated.  
Terms Offered: Fall, Spring

**THE 1151 Theatre Laboratory II (2)**

Experience in performance, design, production or management. Open to all students. Meets graduation requirements for AA in Performing Arts or Technical Theatre students. Maximum 4 credit hours. May be repeated.  
Terms Offered: Fall, Spring

**THE 1166 Theatre Arts Tour (3)**

Survey and practical application of the touring process for high school audiences. Prerequisite(s): CPE 0100 and/or equivalent Compass score  
Terms Offered: Spring

**THE 2201 Acting I (3)**

Basic training and practice in vocal, physical and creative processes used by the actor for the stage, emphasis on character development and scoring techniques.

Prerequisite(s): ENG 1111 and THE 1130 or Instructor Permission

Corequisite(s): none

Terms Offered: Fall

**THE 2202 Acting II (3)**

Continuation of actor training for the stage. Increased emphasis on character development, scoring and styles.

Prerequisite(s): THE 2201

Terms Offered: Spring

**THE 2210 Stage Lighting (3)**

Study of stage lighting techniques, fixtures, circuiting, dimmers, lighting consoles and automated fixtures. Hands-on experience in hanging lights from a light plot; running a follow spot for a professional performance; programming a lighting console; programming moving lights set to music; and creating the light plot, paperwork and paper cues for a single-set interior production.

Prerequisite(s): CPE 0100

Terms Offered: Spring

**THE 2220 Sound (3)**

Theory and practices in sound reinforcement, effects and design for indoor and outdoor stage. Audio equipment and systems; recording techniques and operation of sound for live performance. Hands-on experience in sound design and installation.

Terms Offered: Spring

**THE 2230 Theatre Management (3)**

Organization and operation of the theatre including staff, funding, ticket sales, marketing and grant writing.

Prerequisite(s): THE 1130

Terms Offered: Spring

**THE 2235 Stage Management (3)**

Stage management responsibilities including; rehearsal and performance document preparation; and the development of organizational skills.

Prerequisite(s): THE 1130

Terms Offered: Spring

**THE 2240 Basics of Theatre Design (3)**

Preliminary concepts of set, lighting, sound and costume design for live theatre, including history of theatrical presentation and motivation for design concepts.

Pre/Corequisite(s): THE 2210 or THE 2220

Terms Offered: Fall

**THE 2241 Theatre History I (3)**

Survey of the history and development of theatrical production from Ancient Greece through Neoclassical France. Emphasis on play production rather than literature. Representative plays studied.

Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall

**THE 2242 Theatre History II (3)**

Survey of the history and development of theatrical production from Restoration through the present. Emphasis on play production rather than literature. Representative plays studied.

Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Spring

**THE 2280 Directing (3)**

Introduction to the art and techniques of directing for the stage, including visual storytelling, script analysis and working with actors.

Prerequisite(s): THE 1130

Terms Offered: Spring

**THE 2282 Co-Op Education (3)**

Apply classroom studies in a technical theatre workplace.

Prerequisite(s): THE 1111 and THE 1112

Terms Offered: Spring



# Campus Directory

2011  
2012

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

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# **Student Semester Transition Guide**

[www.clarkstate.edu/semester\\_conversion.php](http://www.clarkstate.edu/semester_conversion.php)



Revised May 23, 2011

## Important Info about the Transition To Semesters

**What:** In the Fall of 2012, Clark State will be moving from quarters to semesters:

- A quarter is typically 10 weeks of class plus a week for final exams
- A semester is typically 15 weeks of class plus a week for final exams
- It takes three quarters to make an academic year, but only two semesters

**Why:** This transition will align the College's calendar with other public colleges and universities in Ohio and with more than 90 percent of higher education institutions across the country. Sinclair, Wright State, Ohio State and Ohio University are some of the schools making the switch at the same time.

**How:** In order to prepare for this change, all students will meet with an advisor to create a personalized MAP (My Advising Plan) to plan what courses you need to take before and after the switch to semesters. Careful planning with your advisor and your dedication to following your MAP should ensure you graduate on time.

**Student's Responsibilities:** A successful partnership places responsibilities on both parties. Students must meet with their assigned academic advisor, jointly create an individual MAP that leads to graduation, and then successfully complete the academic requirements within the timeline specified in the MAP. **Failure to complete any of these steps nullifies the College pledge regarding the quarter to semester conversion process.**

**What is a Transition Student?** *Transition students* are students who started at Clark State on the quarter system and who will complete their studies on the semester system. The conversion to semesters will have the greatest impact on transition students. The *Student Semester Transition Guide* is designed to help transition students and their advisors create a plan to ensure a smooth transition and on-time graduation.

In consultation with their advisors and according to established College policies, transition students will combine credits from their quarter courses taken prior to Fall 2012 with their semester courses to complete their degree requirements.

**Students Reentering Clark State:** Students reentering Clark State during the 2012-2013 academic year who have not been enrolled at the College during the previous twelve months and who started their programs on the quarter system may be able to complete graduation requirements using the guidelines applicable to transition students. Students who reenter Clark State after the 2012-2013 academic year will be subject to requirements in effect at the time of their reentrance. Reentering students should consult with their academic advisors about their remaining requirements and the semester transition guidelines.

This *Student Semester Transition Guide* is a comprehensive reference guide to the semester transition at Clark State Community College. Its purpose is to explain how the conversion to semesters will affect you as a student and to assist in your semester transition planning.

Consultation with an academic or faculty advisor is essential to making a successful transition from quarters to semesters. The *Student Semester Transition Guide* is intended as a general guide to the Clark State semester transition for you and your assigned advisor; more specific and detailed information about your particular program will be available in your academic division office. You should also watch for updates on the semester conversion at the following website: [www.clarkstate.edu/semester\\_conversion.php](http://www.clarkstate.edu/semester_conversion.php).

Special thanks to the following colleges and universities for supplying us with valuable information for the *Student Semester Transition Guide*: The University of Toledo, Wright State University, Shawnee State University, University of Cincinnati, and Ohio University.



## Transition Student Checklist

The 2011-2012 academic year is the final year on the quarter system at Clark State. Transition students should plan this year carefully in order to avoid problems in completing their programs on the semester system. The following student checklist will assist students in this planning process:

- READ** all parts of the *Student Semester Transition Guide*.
- DECLARE** any planned change in major with the Records & Registration Office. Use WebAdvisor to confirm your active major is accurate.
- IDENTIFY** your assigned advisor (*See back cover of this guide*).
- ATTEND** a semester transition information session (*Dates and times can be found at [www.clarkstate.edu/semester\\_conversion.php](http://www.clarkstate.edu/semester_conversion.php)*).
- PRINT** your Program Evaluation from your WebAdvisor account.
- MEET** with your advisor and develop a MAP (My Advising Plan) according to the following schedule:

If you are a student who...	You should create your MAP...
will be transitioning & completing your program on semesters	before you schedule classes for Summer/Fall 2011 or at the time you schedule your first quarter of classes

- PLAN** which courses to take on the quarter system during the 2011-2012 academic year. (*Refer to the course planning guide found at [www.clarkstate.edu/semester\\_conversion.php](http://www.clarkstate.edu/semester_conversion.php)*).
- TAKE** advantage of December Short-term and Summer course options to complete basic requirements and sequential courses.
- GIVE** priority to completing sequence courses over taking elective and non-sequenced courses.
- DELAY** starting sequenced courses that cannot be completed prior to Fall 2012.
- REPEAT** quarter courses, if necessary, on the quarter system. Some quarter courses will not have semester equivalent courses and as a result will not be able to be repeated after semester conversion.

### Additional Advice for the 2011-2012 Academic Year

If a transition student has not declared a major, he/she should consult with their advisor about enrolling for courses in 2011-2012 that fulfill general education requirements. However, if a transition student has declared a major, they should consult with their advisor to develop a MAP as indicated in the student checklist above. **Students should carefully follow their MAP in order to be guaranteed the promises made to them under the College's Pledge to Students.**

Program evaluations are available for students to view in WebAdvisor. A program evaluation is an individualized, computerized record that compares a student's past and current coursework with the requirements for his or her academic program. Students should utilize their program evaluation when meeting with their advisor in creating their MAP.

Individual courses within quarter and semester course sequences will not be equivalent. Students who do not complete a sequence of courses on the quarter system may experience problems completing the course sequence after the semester conversion. As a result, students should either give priority to completing sequential courses prior to the Fall of 2012 or delay starting sequential courses until after the semester conversion if the sequence cannot be fully completed on the quarter system.

## **The MAP (My Advising Plan)**

A student's MAP will define his or her specific path that leads to the completion of his or her degree or certificate program. The College will provide course transition information, scheduling support and academic advising for each student to create a MAP. The MAP will be jointly created and agreed upon by both the student and his or her assigned academic advisor.

**In order to assist students who have the option to graduate before semester conversion,** the College will freeze the requirements for existing degree programs, publish a multi-year course planning schedule and provide assigned advisors to students to develop a MAP that will satisfy their degree requirements prior to Fall 2012. The student must meet with his or her assigned advisor during the Summer/Fall 2011 registration period to guarantee pre-conversion graduation. *An exception to the freeze of degree requirements may occur to satisfy changes in accreditation or licensure standards.*

**In order to assist transition students through the semester conversion process,** the College will provide an assigned advisor so that each student can develop a MAP that includes quarter courses and their equivalent semester courses and defines an equivalent timeline for graduation and degree or certificate completion.

***Clark State's Pledge to Students:*** In Fall 2012 Clark State Community College will switch from a quarter-based academic calendar to a semester-based academic calendar. The progress and success of our students is the highest priority in the planning and the implementation of the semester conversion. The faculty, staff and administration of Clark State Community College will work with each student to ensure that he or she is able to maintain academic progress before, during and after the conversion to semesters.

**The guiding principle of our commitment to students is that the transition to semesters will not negatively impact the time to graduation or increase the total cost of a degree. The College will uphold this principle provided the student satisfies his or her responsibilities in following their MAP (My Advising Plan).**

**The College Pledge:** Clark State commits to providing support to students, both those who plan to graduate prior to the conversion to semesters and *transition students*. Transition students are students who begin their degree programs prior to Fall 2012 and will graduate after the conversion to semesters.

The College pledges that for a student who 1) meets with an assigned academic advisor, 2) jointly creates a MAP (described below) that leads to graduation, and 3) successfully completes the academic requirements in the timeline specified in their MAP, the following statements will apply:

- *Credits that apply to a student's program of study before the semester conversion will continue to apply after the conversion.*
- *The student will be able to graduate in the same time frame on the semester system as he or she would have on the quarter system.*
- *The annual tuition and fees under the semester system will not be greater than if Clark State would have remained on the quarter system.*

## Credit Conversion Table

Conversion of Earned Quarter Credits to Semester Credits

Quarter	Semester	Quarter	Semester	Quarter	Semester	Quarter	Semester
0	0	45	30	91	61	137	92
1	1	46	31	92	62	138	92
2	2	47	32	93	62	139	93
3	2	48	32	94	63	140	94
4	3	49	33	95	64	141	94
5	4	50	34	96	64	142	95
6	4	51	34	97	65	143	96
7	5	52	35	98	66	144	96
8	6	53	36	99	66	145	97
9	6	54	36	100	67	146	98
10	7	55	37	101	68	147	98
11	8	56	38	102	68	148	99
12	8	57	38	103	69	149	100
13	9	58	39	104	70	150	100
14	10	59	40	105	70	151	101
15	10	60	40	106	71	152	102
16	11	61	41	107	72	153	102
17	12	62	42	108	72	154	103
18	12	63	42	109	73	155	104
19	13	64	43	110	74	156	104
20	14	65	44	111	74	157	105
21	14	66	44	112	75	158	106
22	15	67	45	113	76	159	106
23	16	68	46	114	76	160	107
24	16	69	46	115	77	161	108
25	17	70	47	116	78	162	108
26	18	71	48	117	78	163	109
27	18	72	48	118	79	164	110
28	19	73	49	119	80	165	110
29	20	74	50	120	80	166	111
30	20	75	50	121	81	167	112
31	21	76	51	122	82	168	112
32	22	77	52	123	82	169	113
33	22	78	52	124	83	170	114
34	23	79	53	125	84	171	114
35	24	80	54	126	84	172	115
36	24	81	54	127	85	173	116
37	25	82	55	128	86	174	116
38	26	83	56	129	86	175	117
39	26	84	56	130	87	176	118
40	27	85	57	131	88	177	118
41	28	86	58	132	88	178	119
42	28	87	58	133	89	179	120
43	29	88	59	134	90	180	120
44	30	89	60	135	90	181	121
		90	60	136	91	182	122

## **Converting Quarter Credits to Semester Credits**

Requirements for completing an associate's degree under the quarter system can be viewed at <http://www.clarkstate.edu/graduation.php>. Although the minimum number of quarter credits required is 90, many programs require more than 90 quarter credits. In order to calculate how many semester credits must be earned to complete these requirements, students should use the following formula:

**Step 1:** Subtract the number quarter credits you will have earned prior to Fall 2012 from the total number of quarter credits you need for your program of study.

**Step 2:** Multiply the number of remaining quarter credits you will need to earn on the semester system (result of Step 1 above) by  $2/3$ . If the resulting number includes a fraction, round down to the nearest whole number.

**Step 3:** The total number calculated in Step 2 is the number of additional semester credits which must be completed for your degree program after the conversion in Fall 2012. Please refer to the Credit Conversion Table on page 10.

**EXAMPLE:** Prior to the Fall of 2012, Mr. Clark Eagle will have completed 44 quarter credits of the 96 quarter credits required for his degree:

**Step 1:** 96 total quarter credits required – 44 quarter credits completed = 52 remaining quarter credits

**Step 2:** 52 remaining quarter credits  $\times 2/3 = 34 \frac{2}{3}$  semester credits. Because this result includes a fraction you round down to the nearest whole number which is 34 semester credits to complete.

**Step 3:** Mr. Eagle must complete 34 semester credits to complete his Clark State associate's degree.

## **2012-2013 Academic Calendar**

### **FALL SEMESTER 2012**

**August 20 – December 15, 2012**

*Short Term A: August 20 – October 13, 2012*

*Short Term B: October 15 – December 15, 2012*

### **SPRING SEMESTER 2013**

**January 7 – May 4, 2013**

*Short Term A: January 7 – March 2, 2013*

*Short Term B: March 11 – May 4, 2013*

### **SUMMER SEMESTER 2013**

**May 28 – July 22, 2013**

### **FALL SEMESTER 2013**

**August 19 – December 14, 2013**

*Short Term A: August 19 – October 12, 2013*

*Short Term B: October 14 – December 14, 2013*

### **SPRING SEMESTER 2014**

**January 6 – May 3, 2014**

*Short Term A: January 6 – March 1, 2014*

*Short Term B: March 10 – May 3, 2014*

### **SUMMER SEMESTER 2014**

**May 27 – July 21, 2014**

View full color calendars listing specific holidays and breaks at  
[www.clarkstate.edu/semester\\_conversion.php](http://www.clarkstate.edu/semester_conversion.php)

## **Frequently Asked Questions (FAQs)**

### **1. What is the difference between a quarter and a semester?**

A quarter is typically 10 weeks of instruction plus a week for final exams, while a semester is typically 15 weeks of instruction plus a week for final exams. It takes three quarters to make an entire academic year, but only two semesters. Under either system, there are about 30 weeks of instruction in one academic year. The Ohio Board of Regents (OBR) has established specific seat-time guidelines for earning semester credit.

### **2. When will Clark State make the official change to semesters?**

The semester calendar will begin Fall 2012.

### **3. What will the new calendar year look like?**

Fall semester 2012 will begin on August 20, 2012 and end on December 15, 2012. Spring Semester 2013 will begin on January 7, 2013 and end on May 4, 2013. Fall and Spring semesters will consist of 15 weeks of instruction and one week of final exams plus two eight-week short-terms within each semester. Summer semester 2013 will begin on May 28, 2013 and end on July 22, 2013 and will consist one eight-week term. A December short-term will no longer be offered. You can view the new academic calendars including scheduled holidays and breaks on the semester conversion website: [www.clarkstate.edu/semester\\_conversion.php](http://www.clarkstate.edu/semester_conversion.php).

### **4. Will Summer 2012 be different than the previous Summer quarter schedules?**

Yes. The [proposed] Summer 2012 quarter consists of an eight-week and a five-week term. The eight-week term is scheduled for June 18 – August 10 and the five-week term is scheduled for June 18 – July 20.

### **5. How will class times be scheduled under semesters?**

Class times will continue to be scheduled based on each department's faculty schedules and available classrooms. Class offerings will still have morning, afternoon, evening, online, hybrid, self-paced and flexibly scheduled options.

### **6. Will tuition and fees cost more on the semester calendar than the quarter calendar?**

The full year's charges will now be divided into two semesters rather than three quarters. One semester's charges will be proportionately higher than those for one quarter. However, tuition and fees for the full academic year under semesters will be the same as they would have been for a full academic year under quarters.

### **7. Will I lose any credit hours under semesters?**

No. As long as students carefully follow the MAPs they created with their advisors, all quarter hours will be converted to their equivalent number of semester hours.

### **8. How many hours are considered full-time under the semester calendar?**

Enrollment in 12 semester hours is required for full-time status. However, most full-time students will take about 15 hours to stay on track for graduation.

### **9. How many credit hours under the semester system will be required for graduation?**

The minimum number of credit hours needed to earn an associate's degree under semesters will be 60. However, some majors will require more.

### **10. Will semester conversion affect my graduation date?**

If you are currently on track for graduation and continue to carefully follow your MAP, conversion to semesters should not affect your graduation date.

**11. As a student what do I need to do in order to prepare for the change?**

Be sure to review the information provided under the “Planning for Semester Conversion” section of this *Student Semester Transition Guide*. In addition, ask questions, talk to your advisor, create a MAP and stay updated on new information. Please make sure to read and save all information the College provides to students concerning semester conversion.

**12. What is a MAP?**

A MAP (My Advising Plan) is a specific, individual advising plan created for each student. It is a guide/checklist that the student can use to chart their direction and progress until computerized program evaluations are available through WebAdvisor. This form can be completed with your advisor to project your progress and graduation date on semesters.

**13. Clark State currently offers course substitutions and waivers to students on an individual basis. Will substitutions and waivers continue after the semester transition?**

Yes, substitutions and waivers will continue as they do now.

**14. Will I be able to repeat a course to improve a grade and my GPA after the course has been converted to semesters?**

You will be able to repeat some courses originally taken under the quarter system on the semester system in order to replace grades and improve your GPA. Not all courses will be available to retake; if the course has been changed and merged with other content, the department can review the individual student’s request and determine how the replacement grade will be applied and which equivalent course the student should take to change the old course grade.

**15. If a transition student creates a MAP, withdraws and then reenters at a later date, will the student’s MAP still apply?**

No. Failing a class, not taking a class when it is offered, changing your major or not following your MAP may cause delays in your graduation. This will be just as true under the semester system as it has been under the quarter system. Failing to adhere to the outline of classes and timeline specified in your MAP may also lead to an increased cost of your degree or certificate program if your remaining requirements will take longer than originally planned. Students who withdraw from Clark State and reenter at a later date should consult with an advisor to create a new MAP.

## Glossary

**Advisor:** A Clark State staff or faculty member assigned to provide students with academic advice and general guidance on academic planning, class scheduling, degree completion and student success.

**Course Sequence:** Two or three courses that are intended to be taken together in order to fulfill a degree or program requirement. These courses are meant to be taken in a specific order, as the earlier courses are generally prerequisites for later courses. *Example:* course sequence BIO 121, 122 and 123. A student would need to take those three courses, in that order, to fulfill a science requirement. Students should avoid starting a sequence of courses if they will not be able to complete the sequence prior to semester conversion.

**Credit Conversion:** When Clark State converts to semesters in 2012, each transition student's credits will be multiplied by two-thirds to convert the quarter credits to semester credits. While this will cause a student's total number of credits earned to decrease by one-third, degree requirements will also decrease by one-third at that time. The student's grade point average (GPA) will **not** be affected by the conversion of quarter credit hours to semester credit hours.

**Multi-Year Course Planning Schedule:** Clark State will provide students with a multi-year course planning guide that will detail all planned quarter courses that will be offered each quarter up until the semester conversion Fall 2012. This planning schedule should help students appropriately plan which courses they need to complete on the quarter system.

**My Advising Plan (MAP):** A specific advising plan for each individual student who will graduate under semesters.

**Program Evaluation:** An individualized, computerized record that compares a student's past and current coursework with the requirements for his/her academic program. This report, which can be viewed from WebAdvisor, shows what degree requirements still need to be completed by the student.

**Quarter System:** The quarter system divides the academic year into four enrollment periods (Fall, Winter, Spring and Summer) of about 10 weeks of instruction each. Clark State will operate on the quarter system until Fall 2012.

**Reentering Student:** A student who is returning to Clark State after an absence of one or more quarters.

**Semester Conversion:** The process of Clark State switching from a quarter system to a semester system. All of Ohio's two-year and four-year public colleges and universities will operate on the semester system after Fall 2012.

**Semester Credit Hour:** One semester credit hour will be awarded for a minimum of 750 minutes of formalized instruction during an academic term. Typically, students should work out-of-class on assignments an average of two hours for every 50 minutes of formalized instruction.

**Semester System:** The semester system divides the academic year into three main enrollment periods (Fall, Spring and Summer) of about 15 weeks of instruction each. Beginning Fall 2012, Clark State will operate on the semester system.

**Transition:** An alternative term for conversion. *See Semester Conversion.*

**Transition Student:** A student who started at Clark State on the quarter system and will continue their studies on the semester system.

**University System of Ohio:** The public institutions of higher education in Ohio, which includes 14 universities and 23 community colleges. The purpose of the University System of Ohio (USO) is to provide high quality, affordable education to meet Ohioans' varied needs. The USO is governed by the Ohio Board of Regents.

## **Advisor & Division Office Contact Information**

To make an appointment with an advisor to create your MAP, contact your Academic Division Office:

### **Arts & Sciences**

**937-328-6030**

*Associate of Arts Transfer  
Associate of Science Transfer  
Graphic Design & Photography  
Theater and Performing Arts*

### **Business & Applied Technologies**

**937-328-6037**

*Accounting  
Advanced Technical Intelligence  
Agriculture (all options)  
Computer-Aided Design  
Computer Networking & Tech Support  
Computer Software Development  
Court Reporting  
CyberSecurity / Information Assurance  
Geospatial*

*Horticulture (all options)  
Information Services Library Paraprofessional  
Industrial Technology  
Management (all options)  
Mechanical & Manufacturing Engineering  
Medical Coding & Transcription  
Office & Medical Office Administration  
Paralegal  
Professional Services Management*

### **Health & Human Services**

**937-328-6058**

*Early Childhood Education (all options)  
Early Elementary Paraprofessional  
Medical Assisting  
Medical Laboratory Technology  
Physical Therapy Assisting*

*Registered Nursing  
Licensed Practical Nursing  
Multi-Skilled Health Care  
Social Services*

### **Public Services Technology**

**937-328-7960**

*Corrections & Criminal Justice  
Emergency Medical Services  
Firefighting  
Police Academy*





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## Cover Art

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

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Zender Canizales

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Amanda Reza

Josh Dunn

Kristina Hawkins

Rochelle Riley

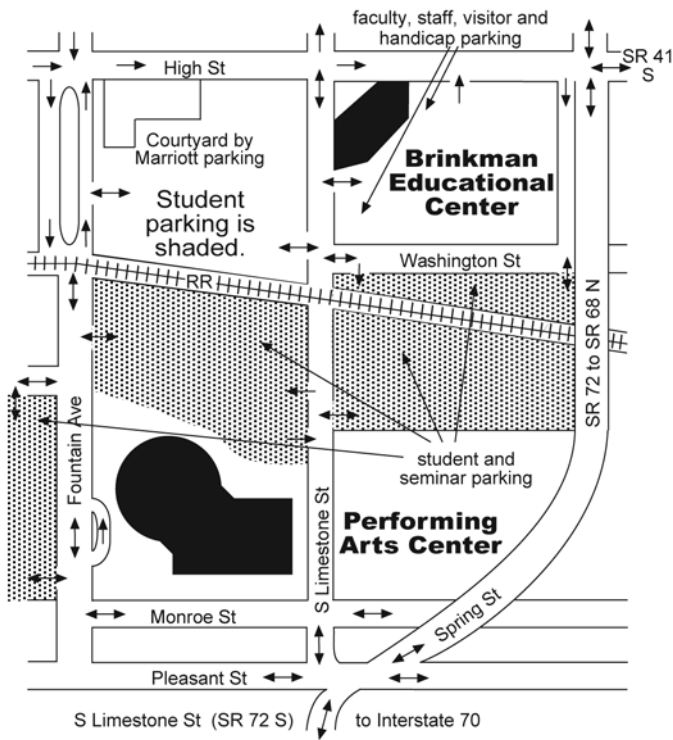
Nathan Ellsworth

Ryan Minnich

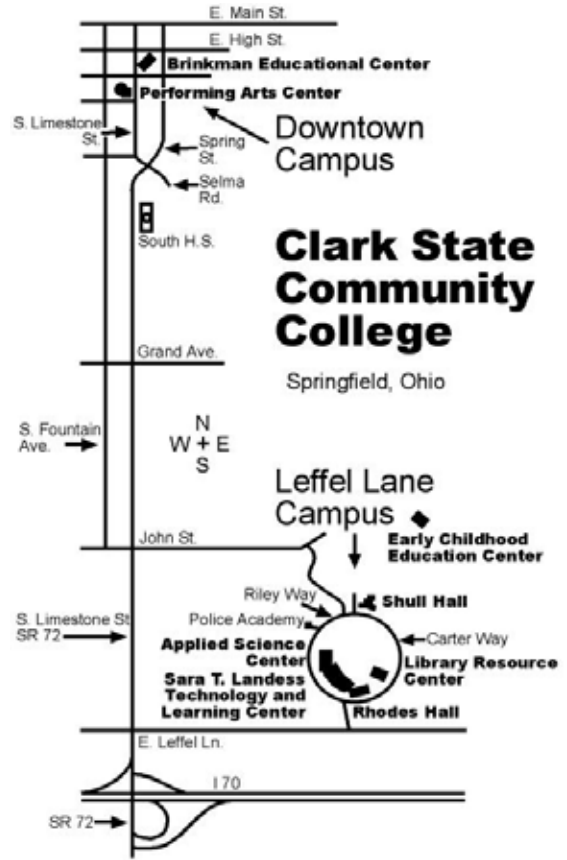
Emily Wickerham



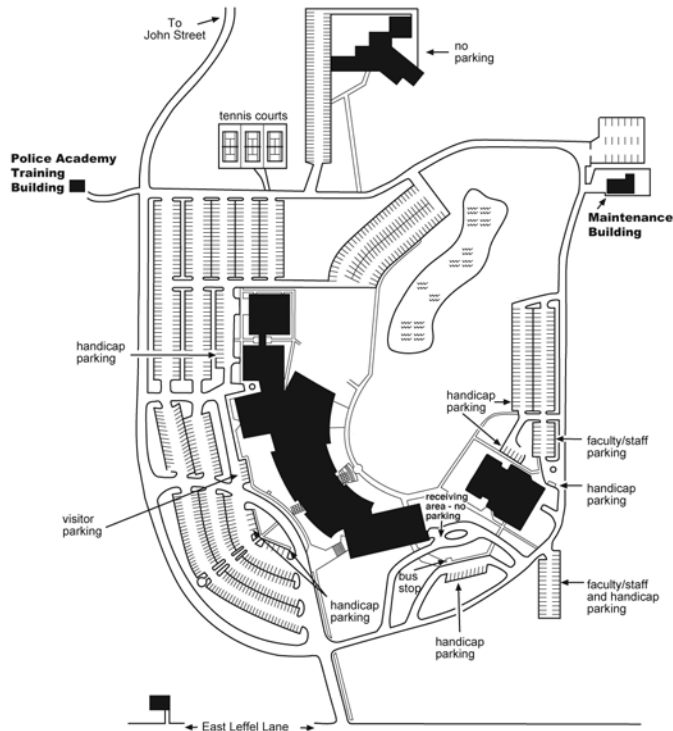
# Campus Maps



**DOWNTOWN CAMPUS**



**BETWEEN THE CAMPUSES**



**LEFFEL LANE CAMPUS**



**GREENE CENTER - BEAVERCREEK**



Sara T. Landess  
Technology and Learning Center

**clarkstate.edu**  
**1.877.41.CLARK**  
**(25275)**

**Leffel Lane Campus**  
570 East Leffel Lane  
Springfield, Ohio 45501  
937.325.0691

**Beavercreek Campus, Greene Center**  
3775 Pentagon Boulevard  
Beavercreek, Ohio 45431  
937.429.8819

**Clark State Performing Arts Center**  
300 South Fountain Ave  
Springfield, Ohio 45506  
937.328.3874

**Downtown Springfield Campus**  
100 South Limestone Street  
Springfield, Ohio 45502  
937.325.0691

**Logan County Campus,  
Ohio Hi-Point Career Center**  
2280 State Route 540  
Bellefontaine, Ohio 43311  
937.295.7154